

Jiaju Zhou · Guirong Xie · Xinjian Yan

# Encyclopedia of Traditional Chinese Medicines

Molecular Structures, Pharmacological Activities,  
Natural Sources and Applications

## Vol.2

Isolated Compounds D-G

 Springer

Encyclopedia of Traditional Chinese Medicines  
Molecular Structures, Pharmacological Activities,  
Natural Sources and Applications



Jiaju Zhou • Guirong Xie • Xinjian Yan

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Traditional Chinese Medicines  
Molecular Structures, Pharmacological  
Activities, Natural Sources and Applications

Vol. 2: Isolated Compounds D-G



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# Encyclopedia of Traditional Chinese Medicines

Molecular Structures, Pharmacological Activities, Natural Sources and Applications

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# Preface

A significant preoccupation of modern traditional Chinese medicine (TCM) research has been the characterization of TCM components, such as pertain to their isolation, purification, structural determination, and pharmacological activity. As a reference tool, this *Encyclopedia of Traditional Chinese Medicines* presents a comprehensive and integrative work on surveying TCM plant sources, chemistry, pharmacology and medicinal effects and indications in a systematic manner.

This encyclopedia is an integrated achievement of a long-term TCM research project by the authors at the Chinese Academy of Sciences<sup>[1-4]</sup>, involving three parts and now organized in six volumes:

Part I (Volumes 1 to 4 and part of Volume 5) provides structural, physical, pharmacological and natural source information on 23,033 isolated chemicals captured from 5,535 references, basically up to year 2005. A great deal of effort has been paid on overlapping or contradictory data in order to provide readers with an accurate and reliable resource.

Part II (last part of Volume 5) describes 6,926 TCM plants and congeners, together with their medicinal effects and indications. The contents of Part I and Part II are all organized in alphabetical order.

Part III (Volume 6) includes seven indexes produced by a computer program. Based on the indexes, users can readily find concerned contents in multiple ways.

With this encyclopedia, the authors attempt to provide a bridge for the communication between the TCM system and Western medicinal systems, and a platform with multiple-subjects in support of research and development of the health sciences.

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Sep, 2010, Beijing

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# Introduction

This encyclopedia mainly consists two parts - compound and plant. Its core content is the structural and pharmacological information of 23,033 phytochemicals, as well as medical effects and indications of 6,926 plant species from which the phytochemicals were isolated. The compounds, i.e. phytochemicals, are ordered alphabetically, and their ordinal numbers are used as compound unique codes. The plant species are coded from T0001 to T6926. With this code system, the complicated “many to many” relationship between compounds and plants can be clearly expressed, and any individual compound or plant could be located easily in this 6 volumes book.

## 1. Compound Entry

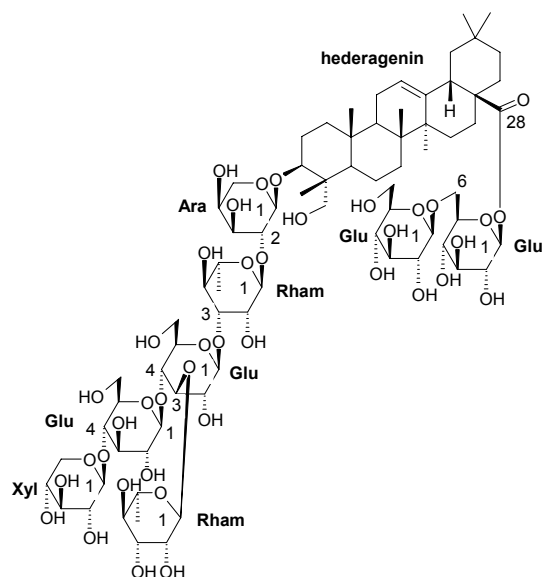
**Format of Compound Entry.** A compound entry starts with a title line, in which there are two items: the compound’s unique code and main name. Following the title line is the compound physical, pharmacological and source information, which may include 8 items:

**Title line (code number, main name)**

- A. Synonyms of the compound (if any);
- B. CASRN number (if any);
- C. Formula (relative molecular mass);
- D. Physicochemical properties;
- E. Pharmacological data (if any);
- F. Source(s);
- G. Reference(s);
- H. Graphic structure.

**Chemical Names and Synonyms.** Generally, a compound may have one scientific name and several trivial names. In the encyclopedia, based on original articles, we select one name as the “main name” (appeared at the title line of each compound entry), and use it to alphabetically order the 23,033 compounds in the first 5 volumes. The main name is either a scientific name or a trivial name. All of other names of each compound, if any, are presented after the title line.

**Stereochemistry of Chemical Structure.** We protracted all compound structures down to atom-bond level including complicated glycosides, with stereo-chemical information based on the data in the original papers. For example, the structure with full stereochemistry of compound 22,834 (isolated from CHUAN XU DUAN *Dipsacus asperoides*) is:



3-*O*-[ $\beta$ -*D*-Xylopyranosyl(1 $\rightarrow$ 4)]- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 4)]  
 [ $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 3)-  
 $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl hederagenin-  
 28-*O*- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside

**Normalization of Pharmacological Data.** More than 8,000 TCM components in this encyclopedia have a variety of pharmacological data, which are valuable not only for the study of TCM, but also for the development of Western medicine. Because different expressions are used for the same kind of data in different articles, we have to define and normalize thousands pharmacological terms, so that the data could be expressed by a unified way, and be easily understood by readers.

The pharmacological terms in the encyclopedia are presented by a multi-layered structure. In the top layer, there are around 20 types of pharmacological activity terms, they are cytotoxic (*in vitro* anticancer), antineoplastic (*in vivo* anticancer), antibacterial, antifungal, antiviral, anti-HIV, anti-inflammatory, antioxidant, antimalarial, enzyme inhibitors, NO production inhibitors, cardiovascular activity, smooth muscle relaxant and stimulant, toxin and medium lethal dose LD<sub>50</sub>, and so forth. For each term there is a regulation about how to describe related pharmacological data. The following is an example:

**Term name** (*in vitro/in vivo*,  
 target cell **1**, quantitative data,  
 control Compound, control's data;  
 target cell **2**, quantitative data,  
 control Compound, control's data;  
 target cell **3**, quantitative data,  
 control Compound, control's data;  
 terse description of related mechanism if any).

Under the subtitle “Pharm:” of compound entry 248 (17-Acetoxyabda-7,12(*E*),14-triene), a set of bio-data is presented as follows:

Pharm: **Cytotoxic** (*in vitro*,  
 BT474 human galactophore cancer cell,  $IC_{50} = 4.7\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 0.08\mu\text{g/mL}$ ;  
 CHAGO human undifferentiated lung cancer cell,  $IC_{50} = 5.7\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 2.3\mu\text{g/mL}$ ;  
 HepG2 human liver cancer cell,  $IC_{50} = 6.5\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 0.9\mu\text{g/mL}$ ;  
 Kato3 human gastric cancer cell,  $IC_{50} = 5.3\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 1.7\mu\text{g/mL}$ ;  
 SW620 human colorectal adenocarcinoma cell,  $IC_{50} = 5.6\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 1.1\mu\text{g/mL}$ ).

In order to standardize abbreviations of cancer cells, such as BT474, CHAGO, etc., we defined and used 270 cancer cell codes (CCC) in the encyclopedia. For explanations of these codes, please see “Cancer Cell Codes in the Pharmacological Models” in Volume 1 of the encyclopedia.

By means of the formatted and structuralized methods, we normalized expressions of most pharmacological data appeared in the encyclopedia. For complete information of all 3367 normalized pharmacological activity terms, please see “Compound Pharmacological Activities Index” in Volume 6.

## 2. Plant Entry

**One Species One Entry.** Conventionally, a TCM name may include more than one plant species that have the same medical functions; therefore, a plant may not have an independent TCM entry and may be described under a TCM name. In this book, modern botany classification regulation is adopted and each plant species has an independent entry.

For example, traditional Chinese medicine DAN SHEN includes three species. They are equivalent in both effects and indications in TCM practice. In this encyclopedia, we defined three plant entries for each one of them.

T5680 *Salvia miltiorrhiza* (Lamiaceae); DAN SHEN; Danshen;  
 T5681 *Salvia miltiorrhiza* f. *alba* (Lamiaceae); BAI HUA DAN SHEN; Whiteflower Danshen;  
 T5688 *Salvia przewalskii* (Lamiaceae); GAN XI SHU WEI CAO; Przewalsk Sage.

With this method, we are able to smoothly link TCM information with that of modern botany.

**Simplified Latin Name.** For each TCM plant or TCM congener, four names are used in the encyclopedia. They are Latin name, English name, PIN-YIN name and Chinese



name, while the Chinese name only appears in TCM Plants PIN-YIN/Chinese Names Index” not in the main part of the book. For plant Latin name (e.g. scientific name), we use a simplified nomenclature, in which the nomenclator(s) information is not included. For example the Latin name of Chinese Angelica (DANG GUI) in the encyclopedia is “*Angelica sinensis*”, not “*Angelica sinensis* (Oliv.) Diels”.

**Family Name.** According to the “International Code of Botanical Nomenclature” (2007), the following eight authoritative family names are used in the encyclopedia. The family names of long usage, which are not used in are the encyclopedia, indicated in parentheses:

Apiaceae (Umbelliferae);  
 Arecaceae (Palmae);  
 Asteraceae (Compositae);  
 Brassicaceae (Cruciferae);  
 Clusiaceae (Guttiferae);  
 Fabaceae (Leguminosae);  
 Lamiaceae (Labiatae) and  
 Poaceae (Gramineae).

**PIN-YIN Name and Chinese Name.** A simplified PIN-YIN name system is used in the encyclopedia. That is not to include the four-tone mark. However, there are exceptions. Among the thousand PIN-YIN names in the book, there are seven confusing cases. For each mistakable name, a superscript is attached to the name for indicating its four-tone in order to distinguish it from other plant species. For example: BAI MAO GEN<sup>(1)</sup> and BAI MAO GEN<sup>(4)</sup> are two different TCM plants:

T3416 *Imperata cylindrica* var. *major* (Poaceae); BAI MAO GEN<sup>(1)</sup>; Lalang Grass Rhizome.  
 T3309 *Hydrastis canadensis* (Ranunculaceae); BAI MAO GEN<sup>(4)</sup>; Golden-seal.

Other six cases are:

T1449 *Cirsium japonicum* (Asteraceae); DA JI<sup>(4)</sup>; Japanese Thistle.  
 T2608 *Euphorbia pekinensis* (Euphorbiaceae); DA JI<sup>(3)</sup>; Peking Euphorbia.  
 T4124 *Matricaria chamomilla* [Syn. *Matricaria recutita*] (Asteraceae); MU<sup>(3)</sup> JU; Mayweed.  
 T0197 *Aegle marmelos* (Rutaceae); MU<sup>(4)</sup> JU; Sepiaria.  
 T1039 *Bruguiera gymnorrhiza* (Rhizophoraceae); MU LAN<sup>(3)</sup>; Common Bruguiera.  
 T3423 *Indigofera tinctoria* (Fabaceae); MU LAN<sup>(2)</sup>; True Indigo.  
 T6798 *Vitis vinifera* (Vitaceae); PU<sup>(2)</sup> TAO; European Grape.  
 T6267 *Syzygium jambos* (Myrtaceae); PU<sup>(3)</sup> TAO; Roseapple.  
 T2107 *Dendrobium nobile* (Orchidaceae); SHI HU<sup>(4)</sup>; Noble Dendrobium.  
 T2646 *Evodia rutaecarpa* var. *officinalis* (Rutaceae); SHI HU<sup>(3)</sup>; Official Evodia.  
 T1221 *Caryopteris divaricata* (Verbenaceae); YOU<sup>(2)</sup>; Divaricate Bluebeard.  
 T1478 *Citrus grandis* (Rutaceae); YOU<sup>(4)</sup>; Pummelo.

**Translation of TCM Effects Terms.** In the Volume 5 of the encyclopedia, 6,926 TCM Plant entries list in alphabetical order of *Latin names*, including 2,923 original TCM plants (including few of animals)<sup>[R01-R04]</sup> and 4,003 congeners (including a few of non-TCM medicinal plants). For each TCM plant, two most important features are traditional TCM effects and indications.

For preparing this encyclopedia, one of the greatest challenges is how to correctly translate each TCM term into correspondent English, so that Western readers are able to understand the true meaning of the content in the book. After comparing several translation systems, we decided to use Wiseman's terminological system<sup>[R05-R07]</sup> for this book.

Wiseman's system obeys two most important principles: (1). The English-language terms should be faithful to the original concepts in traditional Chinese medicine. (2). The English-language TCM terminology should be flexible enough to allow modifications and extensions so that derivative effects can be described by a structuralized manner. For instance, the term "quicken blood" describes a general effect meaning "activating blood flow" or "promoting blood circulation". Elaboration of this term produces "quicken blood and transform stasis", "quicken blood and relieve pain", "quicken blood and regulate menstruation", and so on. The following illustrations are an example of the structuralized expressions related to the term "quicken blood":

quicken blood and disinhibit water  
 quicken blood and dispel stasis  
 quicken blood and dispel wind  
 quicken blood and disperse swelling  
 quicken blood and disperse welling abscess  
 quicken blood and dissipate binds  
 quicken blood and dissipate stasis  
 quicken blood and free menstruation  
 quicken blood and free network vessels  
 quicken blood and free vessels  
 quicken blood and joint bones  
 quicken blood and move *qi*  
 quicken blood and move stasis  
 quicken blood and nourish heart  
 quicken blood and promote milk  
 quicken blood and quiet spirit  
 quicken blood and regulate menstruation  
 quicken blood and relieve pain  
 quicken blood and resolve toxin  
 quicken blood and settle pain  
 quicken blood and soothe sinews  
 quicken blood and stanch bleeding  
 quicken blood and strengthen sinews  
 quicken blood and transform stasis  
 quicken blood and vessels

**Translation of TCM Indications Terms.** Based on Wiseman's terminological system, "Chinese-English Dictionary of Traditional Chinese Medicine" compiled by Guangzhen Gao *et al.*<sup>[R08]</sup>, "An English-Chinese Medical Dictionary, Second Edition" compiled by Weiyi Chen *et al.*<sup>[R09]</sup>, and other reference dictionaries, we defined over 3,800 standard indication terms for translating TCM indications terms from Chinese to English. Among the 3,800 terms, 2,526 terms are actually used in the encyclopedia, in which 85% terms are traditional TCM terms and the rest 15% are common modern medicinal terms. Some typical examples of traditional TCM indication terms are as follows:

*yin* vacuity internal heat  
*yin* vacuity lung dryness  
*yin* vacuity tidal fever  
 chest impediment  
 chest impediment and heart pain  
 chest impediment and heart pain over back  
 chest oppression and pain  
 chest oppression with breathe hard  
 distention pain in rib-side  
 distention pain in stomach duct  
 distention pain in stomach duct and abdomen  
 externally contracted summer heat-damp  
 externally contracted wind evil  
 externally contracted wind-cold  
 externally contracted wind-heat  
 knocks and falls  
 sores  
 sores clove boil  
 swelling of sores and boils  
 sore scab and lichen  
 toxin swelling of sores

In summary, this encyclopedia provides a collection of more than 23,000 TCM chemical components isolated from natural resources and a large number of pharmacological activity data of these components. It may be used not only as a handbook to look for structures and pharmacological activities of TCM chemical components and source plant information, but also a fundamental platform for studying TCM with a systematic and integrative approach.

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# How to Use the Books

## 1. Three Kinds of “Many to Many” Relationships

To help readers effectively search and use of the books, authors strongly suggest readers being familiar with the structure of the encyclopedia and certain important linkers or pointers between different data sets.

Firstly, in order to avoid confusing cases, please keep in mind the following three features of the book:

(a) In the encyclopedia, all of pharmacological data belong to compounds, not to plants. In other words, the encyclopedia doesn't include plants' pharmacological data.

(b) All effect and indication terms belong to TCM plants, not to compounds. And almost all of effect terms as well as 85% indication terms are pure Chinese traditional concepts.

(c) In the encyclopedia, there are three kinds of “many to many” relationships: (i), compounds to plants, which is the most important relationship. (ii), pharmacological data to compounds in the molecular level only. (iii), plants to effects/indications in the species level.

Pharm. data ↔ Compound 1		Plant T0001 ↔ effects, indications
Pharm. data ↔ Compound 2		Plant T0002 ↔ effects, indications
Pharm. data ↔ Compound 3	↔	Plant T0003 ↔ effects, indications
.....		.....
Pharm. data ↔ Compound 23032		Plant T6925 ↔ effects, indications
Pharm. data ↔ Compound 23033		Plant T6926 ↔ effects, indications
(Molecular level)		(Species level)

### Sketch Map of Three Important “Many to Many” Relationships

## 2. Seven Useful Indexes

In Volume 6, there are seven indexes for data searching.

The indexes 1-3 are tools to search compounds from different starting-points:

**Index 1** (Compound Pharmacological Activity Index) links pharmacological terms



with related compound codes. For example, if there is a question as:

“Which compounds have *in vitro* cytotoxic activity against human breast cancer cells?”

From the index 1, the answer can easily be obtained as follows:

Cytotoxic, BC hmn breast cancer cells 24, 349, 526, 2244, 3416, 3429, 3708, 4775, 5095, 6759, 6759, 6759, 12453, 12454, 15494, 15495, 18515, 20671.

Cytotoxic, BC-1 hmn breast cancer cells 1277, 2260, 5064, 5327, 6759, 6759, 8220, 8221, 8222, 8235, 10250, 10297, 10511, 11353, 13489, 13490, 13491, 13492, 13493, 13494, 13495, 15919, 17008, 18866, 20809.

Cytotoxic, BCA-1 hmn breast cancer cells 6759, 13468, 13469, 13470, 15739.

Cytotoxic, Bcap37 hmn breast cancer cells 843, 11392, 13123, 16183, 17717, 18499.

Then, from compounds code numbers, one can get detailed data for each compound.

**Index 2** (Compound Molecular Formula Index) connects a molecular formula to its all isomers. For example, there are five isomers with formula  $C_{45}H_{76}O_{18}$ :

$C_{45}H_{76}O_{18}$

Abutiloside F, 40

Asp-IV, 1905

Asp-V, 1906

Trigoneoside IIIa, 21669

Trigoneoside IIIb, 21670

**Index 3** (Compound Synonym Index) is useful for searching a compound from a known name. A strong suggestion to readers is that when searching a compound from a known name, to search twice probably is necessary: firstly from entry title in the encyclopedia text and then from the index 3.

The indexes 4–7 are tools to search TCM plants:

**Index 4** (TCM Plant English Name Index) links a Plant English Name to other names of the plant, for example:

Chinese Angelica = T0495 *Angelica sinensis* = DANG GUI

Siberian Phlojodicarpus = T4804 *Phlojodicarpus sibiricus* = ZHANG GUO QIN

Dahurian Angelica = T0478 *Angelica dahurica* [Syn. *Angelica porphyrocaulis*] = BAI ZHI

Gigantic Angelica = T0483 *Angelica gigas* = CHAO XIAN DANG GUI

Narrowleaf Angelica = T0476 *Angelica anomala* = XIA YE DANG GUI

**Index 5** (TCM Plant PIN-YIN and Chinese Name Index) links PIN-YIN name to Latin name and/or English name, for example:

BAI HUA QIAN HU = T4768 *Peucedanum praeruptorum* = Whiteflower Hogfennel

BAI HUA SHE GAN = T3457 *Iris dichotoma* = Vesper Iris

BAI HUA SHE SHE CAO = T4485 *Oldenlandia diffusa* [Syn. *Hedyotis diffusa*] = Spreading Hedyitis

**Index 6** (TCM Plant Traditional Effects Index) and **Index 7** (TCM Plant Traditional Indications Index) connect specific effect and/or indication to related plants.

For example, to search all plants with effect “nourish heart and quiet spirit”, the result is:

**nourish heart and quiet spirit:**

T0944 *Biota orientalis* [Syn. *Thuja orientalis*; *Platyclusus orientalis*],  
 T1292 *Celastrus orbiculatus* [Syn. *Celastrus articulatus*],  
 T1381 *Choerospondias axillaris*,  
 T4194 *Menyanthes trifoliata*,  
 T4400 *Nelumbo nucifera*,  
 T4902 *Pimpinella thelungiana*,  
 T5108 *Polygonum multiflorum*,  
 T5497 *Rhodiola kirilowii*,  
 T5701 *Salvia yunnanensis*.

If searching all plants with indication “angina pectoris” (a modern medicinal term), “externally contracted wind-cold” (a TCM term), and “externally contracted wind-heat” (a TCM term), you will obtain the following results:

**angina pectoris:** T1215 *Carthamus tinctorius*, T1395 *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*], T1775 *Crataegus pinnatifida*, T1778 *Crataegus pinnatifida* var. *major*, T2274 *Dryobalanops aromatica*, T2389 *Epimedium acuminatum*, T2390 *Epimedium brevicornum*, T2392 *Epimedium davidii*, T2394 *Epimedium elongatum*, T2398 *Epimedium koreanum*, T2401 *Epimedium pubescens*, T2402 *Epimedium sagittatum*, T2404 *Epimedium sutchuenense*, T2406 *Epimedium wushanense*, T2846 *Ganoderma japonicum* [Syn. *Ganoderma sinense*], T2848 *Ganoderma lucidum*, T2964 *Ginkgo biloba*, T3388 *Ilex chinensis* [Syn. *Ilex purpurea*], T3396 *Ilex pubescens*, T3397 *Ilex pubescens* var. *glaber*, T3875 *Liriope spicata* var. *prolifera*, T3925 *Loranthus parasiticus* [Syn. *Loranthus chinensis*; *Taxillus chinensis*], T3926 *Loropetalum chinense*, T4303 *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*, T4507 *Ophiopogon japonicus*, T4608 *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], T4953 *Piper longum*, T5312 *Pueraria edulis*, T5313 *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], T5316 *Pueraria omeiensis*, T5318 *Pueraria phaseoloides*, T5320 *Pueraria thomsonii*, T5680 *Salvia miltiorrhiza*, T5681 *Salvia miltiorrhiza* f. *alba*, T5688 *Salvia przewalskii*, T6510 *Trichosanthes kirilowii*, T6513 *Trichosanthes rosthornii* [Syn. *Trichosanthes uniflora*], T6584 *Typha angustata*, T6585 *Typha angustifolia*, T6587 *Typha latifolia*.

**externally contracted wind-cold:** T4039 *Magnolia grandiflora*, T4445 *Notopterygium forbesii* [Syn. *Notopterygium franchetii*], T4446 *Notopterygium incisum*, T4956 *Piper mullesua*, T5727 *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*].

**externally contracted wind-heat:** T0480 *Angelica decursiva* [Syn. *Peucedanum decursivum*], T1395 *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*], T1933 *Cyclea sutchuenensis*, T2798 *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*], T3819 *Ligusticum brachylobum*, T4413 *Nepeta cataria*, T4761 *Peucedanum longshengens*, T4768 *Peucedanum praeruptorum*, T4769 *Peucedanum rubricaulis*, T6791 *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*], T6793 *Vitex trifolia*.

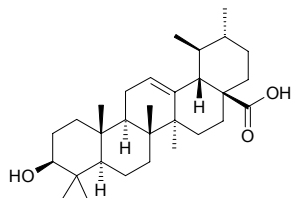
### 3. Data Survey Example of Compound Entry

At last, we would like to take Ursolic acid (compound code 22270 in the books) as a data survey example. Under this compound there are a quite number of data as follows:

**22270 Ursolic acid**

$\beta$ -Ursolic acid [77-52-1] C<sub>30</sub>H<sub>48</sub>O<sub>3</sub> (456.72).

White solid powder (chloroform–methanol), mp 298~294°C, 265~267°C.

**Pharm: (27 items)**

**Cytotoxic** (KB, ED<sub>50</sub> > 25µg/mL, control Doxorubicin, ED<sub>50</sub> = 0.12µg/mL; Hep3B, ED<sub>50</sub> > 25µg/mL, control Doxorubicin, ED<sub>50</sub> = 0.14µg/mL; Colon205, ED<sub>50</sub> > 25µg/mL, control Doxorubicin, ED<sub>50</sub> = 0.10µg/mL; HeLa, ED<sub>50</sub> > 25µg/mL, control Doxorubicin, ED<sub>50</sub> = 0.11µg/mL)<sup>[4369]</sup>;

**cytotoxic** (*in vitro*, HONE-1 cell, IC<sub>50</sub> = (8.8±1.5)µmol/L, control Etoposide, IC<sub>50</sub> = (0.5±0.2)µmol/L, *cis*-Platin, IC<sub>50</sub> = (3.2±0.5)µmol/L; KB cell, IC<sub>50</sub> = (8.2±2.7)µmol/L, Etoposide, IC<sub>50</sub> = (0.9±0.3)µmol/L, *cis*-Platin, IC<sub>50</sub> = (4.4±0.9)µmol/L; HT29 cell, IC<sub>50</sub> = (4.7±1.5)µmol/L, Etoposide, IC<sub>50</sub> = (2.4±0.5)µmol/L, *cis*-Platin, IC<sub>50</sub> = (5.7±1.1)µmol/L)<sup>[5254]</sup>;

**antineoplastic** (liver cancer cells *in vitro*, mus ascites carcinoma *in vivo*, life was prolonged);

**antibacterial** (*Escherichia coli*, IZD = 13~15mm, control Chloramphenicol, IZD = 16~20mm, control DMSO (4%), IZD < 10mm; *Staphylococcus aureus*, IZD = 10~12mm, control Chloramphenicol, IZD = 16~20mm, control DMSO (4%), IZD < 10mm; *Bacillus subtilis*, IZD = 13~15mm; control Chloramphenicol, IZD = 16~20mm, control DMSO (4%), IZD < 10mm)<sup>[5315]</sup>;

**antibacterial** (*Staphylococcus* spp. *in vitro*, MIC = 300µg/mL, gram-positive bacteria *in vitro*, MIC = 50~400µg/mL, gram-negative bacteria *in vitro*, MIC = 200~800µg/mL, microzyme *in vitro*, MIC = 100~700µg/mL);

**antitubercular** (*Mycobacterium tuberculosis*, MIC = 41.9µg/mL, cytotoxic, Vero cells, IC<sub>50</sub> = 46.5µg/mL, SI (IC<sub>50</sub>/MIC) = 1.11, positive control Rifampin, MIC = 0.03µg/mL, IC<sub>50</sub> = 98.3µg/mL, SI = 3277)<sup>[4986]</sup>;

**anticonvulsant** (induced by corazol);

**anti-inflammatory** (rat, induced by embedding woolball, 12.5mg/(kg·d) ip, 7 days, effective);

**anti-inflammatory** (*in vitro*, murine macrophage RAW264.7 Cells, inhibits LPS-induced NO and PGE<sub>2</sub> release)<sup>[5016]</sup>;

**COX-2 enzyme selective inhibitor** (mean IC<sub>50</sub> of isomers = 130µmol/L)<sup>[4415]</sup>;

**COX-2 enzyme inhibitor** (PMA-treated hmn mammary and oral epithelial cells, molecular mechanisms is mediated by a cAMP response element in the COX-2 promoter, associated with inhibition of protein kinases)<sup>[4415]</sup>;

**antipyretic** (clearly reduces normal body temperature of rat);

**reduces serum transaminase** (animal, 100mg/kg);

**antitrypanosomal** (epimastigotes of *Trypanosoma cruzi*, MLC = 6.2µmol/L, control Gentian violet, MLC = 6.2µmol/L)<sup>[2579]</sup>;

**mucin release stimulator** (acts directly on airway mucin-secreting cells, increased mucin release (40~50)% above control at the highest concentrations 0.00001~0.001mol/L, possible use to treatment of chronic airway diseases)<sup>[4084]</sup>;

**platelet aggregation inhibitor** (2~5mg/mL collagen-induced, IC<sub>50</sub> = (511±4)µmol/L, control ASA, IC<sub>50</sub> = (420±3)µmol/L; 1~4µmol/L epinephrine-induced with 0.8~1.0mg/mL collagen, IC<sub>50</sub> = (82.6±2.8)µmol/L, ASA, IC<sub>50</sub> = (53.0±4.5)µmol/L; 10~40µmol/L Sodium arachidonate-induced with 0.8~1.0mg/mL collagen, IC<sub>50</sub> =

(669±12)μmol/L, ASA, IC<sub>50</sub> = (66.0±2.1)μmol/L; 1~5μmol/L PGH<sub>2</sub>/TXA<sub>2</sub> receptor agonist U46619-induced with 0.8~1.0mg/mL collagen, IC<sub>50</sub> > 1000μmol/L, ASA, IC<sub>50</sub> = (340±12)μmol/L)<sup>[4994]</sup>;

**tissue factor inhibitor inactive**<sup>[5387]</sup>;

**antirheumatic**<sup>[5341]</sup>;

**anti-diabetic**<sup>[5341]</sup>;

**antiulcer**<sup>[5341]</sup>;

**hypolipidemic**<sup>[5341]</sup>;

**anti-atherosclerotic**<sup>[5341]</sup>;

**anti-HIV**<sup>[5341]</sup>;

**TGF-β1 antagonist** (inhibits the binding of <sup>125</sup>I-TGF-β1 to its receptor in Balb/c 3T3 cell, IC<sub>50</sub> = (6.9±0.8)μmol/L, suggests TGF-β1 antagonistic activity is responsible, at least in part, for therapeutic efficacy of *Clerodendranthus spicatus* to treat humans with renal disease)<sup>[5496]</sup>;

**glucocorticoid** (enhances glycogen in liver, reduces glycogen in heart and striated muscles);

**LD<sub>50</sub>** (mus, ip) = 680mg/kg.

### Sources: (52 species)

BAI HUA SHE SHE CAO *Oldenlandia diffusa* [Syn. *Hedyotis diffusa*] (whole herb: mean content of 16 origins = 0.211%)<sup>[5508]</sup>;

BI LU GOU TENG *Uncaria tomentosa*,

CHE QIAN *Plantago asiatica* (whole herb: content scope = 0.28%~2.32%, mean content = 0.97%)<sup>[5508]</sup>;

CHI NAN *Syzygium buxifolium*,

CHONG YA YAO *Isodon ternifolius*,

CI WU JIA YE *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*],

DA CHE QIAN *Plantago major*,

DA ZAO *Ziziphus jujuba* (ripe fruit: mean content = 0.016%)<sup>[5508]</sup>,

DAN SHEN *Salvia miltiorrhiza*,

DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield = 0.0064%dw),

DONG LING CAO *Rabdosia rubescens* (whole herb: mean content = 0.414%)<sup>[5508]</sup>; leaf: mean content = 0.573%)<sup>[5508]</sup>;

DU ZHONG *Eucommia ulmoides*,

DUAN TING SHAN MAI DONG *Liriope muscari* (tuber),

GOU GU YE *Ilex cornuta* (leaf: mean content = 0.96%)<sup>[5508]</sup>,

GUANG JING QIAN CAO *Rubia wallichiana* (stem),

HONG HUA LU TI CAO *Pyrola incarnata* (whole herb: content = 2.06%)<sup>[5508]</sup>,

HU BEI SHAN ZHA *Crataegus hupehensis* (dried ripe fruit: mean content = 0.455%),

JIAN YE TOU WU GEN *Ligularia sagitta*,

LIAN QIAN CAO *Glechoma lungituba*,

LIAN QIAO *Forsythia suspensa*,

LIU QIU SHE GEN CAO *Ophiorrhiza liukiensis* (whole herb),

MA BIAN CAO *Verbena officinalis* (whole herb: mean content of 5 batch samples = 0.227%)<sup>[5508]</sup>,

MAO CAO LONG *Ludwigia octovalvis* (whole herb: yield = 0.00012%dw),

MAO PAO TONG *Paulownia tomentosa*,

MAO XU CAO *Clerodendranthus spicatus*,

MU GUA *Chaenomeles sinensis*,

NV ZHEN ZI *Ligustrum lucidum*,

PI PA YE *Eriobotrya japonica* (dried leaf: mean content = 0.677%)<sup>[5508]</sup>,

PI PA YE *Eriobotrya japonica* (stem and leaf),

PING CHE QIAN *Plantago depressa* (whole herb: mean content = 0.276%)<sup>[5508]</sup>,

RI BEN LU TI CAO *Pyrola japonica*,

RONG SHU *Ficus microcarpa* (aerial root),  
 SHAN DI XIANG CHA CAI *Isodon oresbia*,  
 SHAN LI HONG *Crataegus pinnatifida* var. *major*,  
 SHAN ZHA *Crataegus pinnatifida* (fruit: content scope = 0.31%~0.56%)<sup>[5501]</sup>,  
 SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpium officinale*] (dried ripe fruit: content  
 scope = 0.24%~0.32%)<sup>[5501]</sup>, mean content = 0.263%)<sup>[5508]</sup>,  
 SHI NAN *Photinia serrulata* (leaf: mean content = 1.50%)<sup>[5508]</sup>,  
 SHI SHENG BIAN LEI *Gentianopsis paludosa*,  
 SHI YE *Diospyros kaki* (dried leaf: mean content = 0.784%)<sup>[5508]</sup>,  
 SHU HUA JIE CAO *Valeriana laxiflora* (aerial parts and root),  
 SUAN ZAO *Ziziphus jujuba* var. *spinosa* (ripe fruit: content = 0.030%)<sup>[5508]</sup>,  
 SUO YANG *Cynomorium songaricum* (fleshy stem: content = 0.78%)<sup>[5508]</sup>,  
 WEI LING CAI *Potentilla chinensis*,  
 WU GENG WU JIA PI *Acanthopanax sessiliflorus* (fruit),  
 XIA KU CAO *Prunella vulgaris* (dried spike: content = 0.780%)<sup>[5508]</sup>,  
 YANG MEI SHU PI *Myrica rubra* (bark: content = 0.027%),  
 YE SHAN ZHA *Crataegus cuneata* (dried ripe fruit: mean content of 3 origins =  
 0.399%)<sup>[5508]</sup>,  
 YI LANG QING LAN *Dracocephalum kotschyi*,  
 ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*] (dried ripe fruit: mean content =  
 0.041%)<sup>[5508]</sup>,  
 ZHOU YE LU TI CAO *Pyrola rugosa* (whole herb: content = 3.00%)<sup>[5508]</sup>,  
*Cussonia bancoensis*,  
 Occurs in many plants.

**Ref:** 4, 367, 428, 454, 501, 592, 595, 600, 658, 660, 2579, 3005, 3061, 4084, 4163, 4369,  
 4415, 4527, 4767, 4772, 4986, 4994, 5016, 5254, 5315, 5382, 5387, 5341, 5496, 5501,  
 5508.

# Abbreviations and Symbols

12(S)-HETE	12(S)-Hydroxy-5,8,10,14-EicosaTetraEnoic acid	cAMP-PDE	cAMP-phosphodiesterase
<sup>125</sup> I-TGF- $\beta$ 1	<sup>125</sup> I-Transforming Growth Factor- $\beta$ 1	CAPE	Caffeic Acid Phenethyl Ester
5-FU	5-FluoroUracil	CB	cytochalasin B
5-HT	5-HydroxyTryptamine (serotonin)	CC	macrophage inflammatory protein (MIP-1 $\beta$ ), monocyte chemotactic protein (MCP-2), and C lymphotactin (ltn) (a chemokine family)
95%FL (=CI <sub>95</sub> )	95% Fiducial Limits (=95% Confidence Interval)	CC <sub>0</sub>	Minimum cytotoxic concentration
AA	Arachidonic Acid	CC <sub>50</sub>	IC <sub>50</sub> of cytotoxicity (concentration of the 50% cytotoxic effect)
AAPH	2,2'-Azo-bis-(2-AmidinoPropane)-diHydrochloride	CCR1	chemokine receptor 1
ABTS <sup>+</sup>	2,2'-Azino-Bis-(3-ethylbenzThiazoline 6-Sulphonic acid), radical	CD	concentration required to double enzyme (induction) activity
ACAT	Acyl-CoA Cholesterol acyltransferase	CD	Concentration required to double quinone reductase (induction) activity
ACE	Angiotensin Converting Enzyme	CD <sub>50</sub>	medium Convulsive Dose
Ach	Acetylcholine	cGMP	cyclic guanosine monophosphate
AChE	Acetylcholinesterase	cGMP-PDE	cGMP-phosphodiesterase
ACTH	AdrenoCorticoTropic Hormone	CGN	<i>cis</i> -Golgi network
AD	Alzheimer's disease	CGRP	Calcitonin gene-related peptide
ADM	adriamycin	CHO	Chinese hamster ovarian
ADP	adenosine diphosphate	CI	Chemopreventive index (=IC <sub>50</sub> /CD)
AG	aminoguanidine	CI <sub>95</sub> (=95%FL)	95% Confidence Interval (=95% Fiducial Limits)
AggRt	aggregation rate	CIC	complete inhibiting concentration
AIDS	acquired immunodeficiency syndrome	CIMC	complete inhibiting minimum concentration
ALS	amyotrophic lateral sclerosis	CINC-1	cytokine-induced neutrophil chemoattractant 1
ALT	alanine aminotransferase	CMV	Cytomegalovirus
AMP	adenosine monophosphate	CNQX	6-Cyano-7-nitroquinoxaline-2,3-dione (non-NMDA receptor antagonist)
AMV	avian myeloblastosis virus	CNS	central nervous system
AP	angina pectoris	ConA	concanavalin A
AP-1	activator protein-1	COX	cyclooxygenase
APN	Aminopeptidase N	COX-1	cyclooxygenase-1
APV	<i>dl</i> -2-Amino-5-phosphonovaleric acid (a competitive antagonist of the NMDA receptor)	COX-2	cyclooxygenase-2
aq.	aqueous solution	CPT	camptothecin
ASA	AcetylSalicylic Acid	CRF	corticotrophin releasing factor
AST	aspartate transaminase; aspartate aminotransferase	CRH-1	corticotrophin releasing hormone-1
AT-III	Antithrombase-III	CRP	C-reactive protein
ATPase	Adenosine triphosphatase	CV-3988	<i>rac</i> -3-( <i>N</i> -octadecylcarbomoyloxy)-2-methoxypropyl 2-thiazoliethyl phosphate
AZT	3'-azido-3'-deoxythymidine	CVS	cardiac vascular system
BACE1	$\beta$ -Secretase	CXC	Stromal cell-derived factor (SDF)-1 $\alpha$ and IL-8 (a chemokine)
BChE	Butyrylcholinesterase	CYP1A	Cytochrome P450 1A
bFGF	basic Fibroblast Growth Factor	CYP2D6	Cytochrome P450 2D6
BHA	Butylated HydroxyAnisole; 3- <i>tert</i> -Butyl-4-HydroxyAnisole	CYP3A4	Cytochrome P450 3A4
BHT	Butylated HydroxyToluene	d	day
bid	bis in die (Latin)	DCFH	2',7'-dichlorodihydrofluorescein dye
BLM	bleomycin	DDDP	DNA-dependent DNA polymerase
bp	boiling point	dec	decomposition
BST	Brine Shrimp lethality bioassay = Brine Shrimp Test	<i>D</i> -GalN	<i>D</i> -galactosamine
<i>c</i>	concentration		
C5a	complement 5a		
cAMP	cyclic adenosine monophosphate		

DGAT	Diacylglycerol acyltransferase	GSH	Glutathione; <i>N</i> -( <i>N</i> - <i>L</i> - $\gamma$ -Glutamyl- <i>L</i> -cysteinyl)glycine
dil.	dilute	GTP	Guanosine TriPhosphate
DIZ	Diameter of Inhibitory Zone	GVHR	Graft-Versus-HostReaction
DMBA	9,10-dimethyl-1,2-benzanthracene (carcinogen); 7,12-dimethylbenz[a]anthracene (carcinogen)	h	hour
DMDP	(2 <i>R</i> ,3 <i>R</i> ,4 <i>R</i> ,5 <i>R</i> )-2,5-DihydroxyMethyl-3,4-Dihydroxy-Pyrrolidine	HAD	hmn immunodeficiency virus associated dementia
DMSO	DiMethyl SulphOxide	HBeAg	hmn type B Hepatitis, e Antigen
DNA	deoxyribonucleic acid	HBsAg	hmn type B Hepatitis, Surface Antigen
DNJ	1-Deoxynojirimucin (one kind of polyhydroxy alkaloid, glucosidase inhibitor)	HBV	Hepatitis B Virus
DOX	doxorubicin	HC <sub>50</sub>	medium Hemolytic Concentration
DPI	Diphenyleneiodonium	HCoV-229E	hmn coronavirus strain 229E
DPPH	1,1-DiPhenyl-2-PicrylHydrazyl free radical	HD	Huntington's disease
DS8000	Dextran sulphate, prepared from average Mr 8000	HER rat	Hypertensive Essential Rat
DSCG	DiSodium ChromoGlycate (anti-allergic agent)	HIV	hmn immunodeficiency virus
dw	dried weight	HIV-1	hmn immunodeficiency virus type 1
E.A.	Enzyme Activity	HIV-1 IN	hmn immunodeficiency virus type 1 integrase
EBV-EA	Epstein-Barr Virus Early Antigen	HIV-1 RT	hmn immunodeficiency virus type 1 reverse transcriptase
EC	Effective Concentration	HIV-RT	hmn immunodeficiency virus reverse transcriptase
EC <sub>50</sub>	medium Effective Concentration	hmn	human
ED	Effective Dose	HSV-1	herpes simplex virus 1
ED <sub>25</sub>	Effective Dose for 25%	HSV-2	herpes simplex virus 2
ED <sub>50</sub>	medium Effective Dose (in some cases for the medium Effective Concentration)	HVA	homovanillic acid
EGCG (EGCg)	(-)-Epigallocatechin gallate	hydroxyl radical	OH <sup>•</sup>
EGF	Epidermal Growth Factor (it protects MPP <sup>+</sup> -induced cell death)	ia	intra-arterial injection
EGFR	Epidermal Growth Factor Receptor	IAA	indole-3-acetic acid
ELAM-1	Endothelial-Leukocyte Adhesion Molecule-1	IC	Inhibiting Concentration
ELISA	Enzyme-Linked ImmunoSorbent Assay	IC <sub>50</sub>	median Inhibiting Concentration
eotaxin	eosinophilous cytotoxin	IC <sub>100</sub>	Absolute Inhibiting Concentration
ERK	Extracellular signal-Regulated Kinase	ICAM-1	Intercellular Cell Adhesion Molecule-1
ET	experimental times	ICR	Imprinting Control Region mouse
FAG	Fagomine (one kind of polyhydroxy alkaloid, glucosidase inhibitor)	id	intradermal injection
FCA	Freund's complete adjuvant	ID	Inhibiting Dose
FI	Feeding Index (= ((C-T)/(C+T)×100)	ID <sub>50</sub>	Median Inhibiting Dose
Flu-A	influenza virus type A	IFN	interferon
fMLP	<i>N</i> -formyl- <i>L</i> -Methionyl- <i>L</i> -Leucyl- <i>L</i> -Phenylalanine	IFN- $\gamma$	Interferon- $\gamma$
fp	freezing point	IgE	Immunoglobulin E
FR <sub>50</sub>	Feeding ratio when the consumed area of control disc (CCD) is 50% [FR = CTD(consumed area of treated disc)/CCD]	IgG	Immunoglobulin G
fw	fresh weight	IL	interleukin
G6PD	Glucose-6-Phosphate Dehydrogenase	IL-1	Interleukin-1
GABA	$\gamma$ -aminobutyric acid	IL-1 $\alpha$	interleukin-1 $\alpha$
GaIN	galactosamine	IL-1 $\beta$	interleukin-1 $\beta$
GI	growth inhibition	IL-2	Interleukin-2
GI <sub>50</sub>	the concentration of sample necessary to inhibit the growth to 50% of the control	IL-4	Interleukin-4
Glu	glutamate	IL-6	Interleukin-6
GOT	Glutamate-Oxaloacetate Transaminase	IL-8	Interleukin-8
Gp	Gastro protective effect	IL-10	Interleukin-10
gpg	guinea pig	IL-12	Interleukin-12
GPT	GlutamicPyruvic Transaminase	im	intramuscular injection
GRO	Growth-Related Oncogene	<i>in vitro</i>	<i>in vitro</i>
		<i>in vivo</i>	<i>in vivo</i>
		Indo	indomethacin
		iNOS	inducible Nitric Oxide Synthase
		InRt	inhibitive rate
		ip	intraperitoneal injection

i.t.	intrathecal injection	MMP	Matrix MetalloProteinases
iv	intravenous injection	MMP-2	Matrix MetalloProteinase-2
IZA	Inhibition Zone Area (mm <sup>2</sup> )	mp	melting point
IZD	Inhibition Zone Diameter (mm)	mPGES	microsomal ProstaGlandin E Synthase
J774.A1	murine monocyte/macrophage cell J774.A1	MPP+	1-methyl-4-phenylpyridinium ion (neurotoxin)
JNK	c-Jun NH <sub>2</sub> -terminal kinase	MRSA	Methicillin-Resistant <i>Staphylococcus aureus</i>
KD <sub>50</sub>	Dose required to Knock down 50% of the population of insects	MSSA	Methicillin-Sensitive <i>Staphylococcus aureus</i>
LC <sub>50</sub>	concentration at which only 50% of the cell are viable	MTC	Minimal Toxic Concentration
LC <sub>50</sub>	concentration of inhibiting luminous intensity 50%	MTT	A Cytotoxicity measurement method (tetrazolium-based colorimetric assay used for cytotoxicity bioassay, see Rubinstein L. V., et al., <i>Nat. Cancer Inst.</i> , 82, 1113-1118, 1990)
LCIC	Lowest Complete Inhibition Concentration	mus	mouse
LD	Lethal Dose	<i>n</i>	number of parallel experiments
LD <sub>100</sub>	100% Lethal Dose	nAChR	neuronal nicotinic AcetylCholine Receptor
LD <sub>50</sub>	medium Lethal Dose	NADH	reduced nicotinamide adenine dinucleotide
LDH	lactate dehydrogenase	NADPH	cytochrome C reductase
LDL	Low Density Lipoprotein	NCCLS	A standard antibacterial activity test method (see Wayne P. A., "National Committee for Clinical Laboratory Standards Performance Standards for Antimicrobial Disk Susceptibility Tests," 6th ed., Approved standards M2-A6. NCCLS, 1997)
L-NA	N <sup>o</sup> -L-nitroarginine	NDGA	Nordihydroguaiaretic acid
L-NMMA	N <sup>G</sup> -monomethyl-L-arginine	NEP	Neutral EndoPeptidase
LOX	Lipoxygenase	NF	Nuclear Factor
LPO	lipid peroxidation	NF-κB	Nuclear Factor κB
LPS	lipopolysaccharide	NFAT	Nuclear Factor of Activated T cell
LTB <sub>4</sub>	Leukotriene B <sub>4</sub>	NGF	Nerve Growth Factor
LTC <sub>4</sub>	Leukotriene C <sub>4</sub>	NMDA	N-methyl-D-aspartate
LTD <sub>4</sub>	Leukotriene D <sub>4</sub>	NO	nitric oxide
MA	maytenfolic acid	non-oral	paraoral
MA	maslinic acid	NOR1	(+/-)-(E)-4-methyl-2-[(E)-hydroxyimino]-5-nitro-6-methoxy-3-hexenamid
MA	minimal amount	NOS-2	Nitric oxide synthase type-2
MABA	Microplate Alamar Blue Assay	OCIF	OsteoClastogenesis-Inhibitory Factor
MAC-1	integrin MAC-1	oral	oral
MAO-A	Monoamine oxidase A	OVA	ovalbumin
MAO-B	Monoamine oxidase B	oxazolone	oxazolone
MAPK	Mitogen-Activated Protein Kinase	OZ	opsonized zymosan
MCC	Minimum Cytocidal Concentration	P450	Cytochrome P450
MCP	Monocyte Chemotactic Protein	PAF	Platelet Activating Factor
MCTHBE	Minimum Concentration for Total Haemolysis of Bovine Erythrocytes (µg/mL)	PAF	Platelet Aggregation Factor
MDA	Methylene Dihydroxy Amphetamine	PAI-1	Plasminogen Activator Inhibitor type 1
MDA	Malondialdehyde	Para-3 (=PIV3)	Parainfluenza type 3 virus
MDR	MultiDrug Resistance	PBMC	hmN Peripheral Blood Mononuclear Cell
MED	Minimal Effective Dose	PCA reaction	Passive Cutaneous Anaphylaxis reaction
MFC	Minimal Fungicidal Concentration	PD	Parkinson's Disease
MIA	Minimal Inhibitory Amounts (µg/disc)	PD	a cytotoxic model
MIC	Minimum Inhibitory Concentration	pD2 (=pEC <sub>50</sub> )	negative logarithm (-logM) of the concentration required to produce 50% of the maximum response (EC <sub>50</sub> )
MIC <sub>80</sub>	Minimal Inhibitive Concentration for 80%	PDE	phosphodiesterase
MIC <sub>90</sub>	Minimal Inhibitive Concentration for 90%	PDTC	pyrrolidine dithiocarbamate
min	minute	PEBP2αA	polyoma enhancer binding protein 2αA
MIP-1α/β	macrophage inflammatory protein	pEC <sub>50</sub>	negative logarithm (-logM) of the concentration required to produce 50% of the maximum response (EC <sub>50</sub> )
MIQ	Minimum inhibitory quantity (µg)		
MK-801	dizocipline maleate (a non-competitive antagonist of the NMDA receptor)		
MLC	Minimum Lethal Concentration		
MLD	Minimum Lethal Dose		
MMDC	Minimal Morphological Deformation Concentration		
MMOC	Mouse Mammary Organ Culture model		



PEG	PolyEthylene Glycol	Singlet oxygen	$^1\text{O}_2$
PEP	Prolyl endopeptidase (a serine protease)	SIZ	sulfisoxazole
pet. ether	petroleum ether	SNP	sodium nitroprusside
PFTase	farnesylprenyltransferase	SOD	Superoxide dismutase
PGD <sub>2</sub>	prostaglandin D <sub>2</sub>	sp.	species
PGE <sub>2</sub>	prostaglandin E <sub>2</sub>	SP-A	pulmonary surfactant Protein A
PGF <sub>2<math>\alpha</math></sub>	prostaglandin F <sub>2<math>\alpha</math></sub>	spp.	species (plural)
PGH <sub>2</sub>	prostaglandin H <sub>2</sub>	SRSA	Slow-Reacting Substance of Anaphylaxis
PGI <sub>2</sub>	prostacyclin (prostaglandin I <sub>2</sub> )	StRt	Stimulatory Rate
PHA	phytohemagglutinin	STZ	streptozotocin
Phe	Phenylephrine	superoxide anion	$\text{O}_2^{\bullet-}$
pIC <sub>50</sub>	negative logarithm (-logM) of IC <sub>50</sub>	SuRt	survival rate
PK	protein kinase	Syn.(= ‡)	Synonym
PKC	protein kinase C	T/C	survival ratio
PLA <sub>2</sub>	phospholipase A <sub>2</sub>	TACE	$\alpha$ -Secretase (a serine protease)
PMA (=TPA)	Phorbol-12-Myristate-13-Acetate	TBARS	ThioBarbituric Acid Reactive Substance assay
PMNs	polymorphonuclear cell	TC <sub>50</sub>	50% cytoToxic Concentration
pNPPase	<i>p</i> -nitrophenylphosphate enzyme	TCM	Traditional Chinese Medicines
POA	pentacyclic oxindole alkaloids	TFP	Trifluoperazine (calmodulin antagonist)
PPase1	Protein serine/threonine Phosphatase	TGF- $\beta_1$	Transforming Growth Factor- $\beta_1$
PRA	Plaque Reduction Assay	TGI	Total Growth Inhibition, concentration at which no growth was observed
PTH	parathyroid hormone	TI	Therapeutic Index (=IC <sub>50</sub> /EC <sub>50</sub> )
PTN	parthenolide	TNF- $\alpha$	Tumor Necrosis Factor- $\alpha$
PTP1B	Protein Tyrosine Phosphatase 1B	TOA	tetracyclic oxindole alkaloids
QR	quinone reductase	topo II	DNA topoisomerase II
RA	rheumatoid arthritis	TP	Thymidine phosphorylase
Raji	EBV-transformed B cell line	tPA	tissue Plasminogen Activator
rat	white rat	TPA (=PMA)	12- <i>O</i> -tetradecanoyl phorbol 13-acetate
rbt	rabbit	TrkA	proto-oncogene TrkA
RDDP	RNA-dependent DNA polymerase	TXA <sub>2</sub>	thromboxane A <sub>2</sub>
RDS	Respiratory Distress Syndrome	TXB <sub>2</sub>	thromboxane B <sub>2</sub>
rel-InRt	relative inhibitive rate (taking the control compound as 100%)	UDP-MurNac	UDP- <i>N</i> -acetylmuramic acid
RM	Relative Mobility	VCAM-1	Vascular Cell Adhesion Molecule-1
RNA	ribonucleic acid	VCR	vincristine
RNase H	inherent ribonuclease H	VEGF	Vascular Endothelial Growth Factor
ROS	reactive oxygen species (they are involved in the genesis of various cancers, arteriosclerosis, rheumatism and ageing)	Veraguensin	veraguensin
RSV	Respiratory Syncytial Virus	VHR DS-PTPase	VHR Dual-Specificity Protein Tyrosine Phosphatase
RT	Reverse Transcriptase	VHR protein	Vaccinia open reading-frame H1-Related protein phosphatase
RT-PCR	reverse-transcribed polymerase chain reaction	VP-16	A positive control for cytotoxic assay (Sigma product)
sALT	serum alanine transaminase	VRE	Vancomycin-Resistant <i>Enterococci</i> sp
sAST	serum aspartate transaminase	VSE	Vancomycin-Sensitive <i>Enterococci</i> sp
sc	subcutaneous injection	VSV	Vesicular Stomatitis Virus
SC <sub>50</sub>	Half-maximal radical Scavenging Concentration	ww	wet weight
SC <sub>50</sub>	50% Scavenging Concentration	XTT	sodium 3'-[1-(phenylaminocarbonyl)-3,4-tetrazolium] bis(4-methoxy-6-nitrobenzene)sulfonic acid
ScRt	scavenging rate	†	homonym mark
SDF	Stromal cell-Derived Factor	‡ (=Syn.)	synonym mark
SGOT	serum Glutamic Oxalacetic Transaminase	*	the name is given by the authors of the books
SGPT	serum Glutamic Pyruvic Transaminase		
SHR rat	Spontaneously Hypertensive Rats		
SI	Selective index = cytotoxic CC <sub>50</sub> /target EC <sub>50</sub>		
SI	Selective index = cytotoxic IC <sub>50</sub> /target IC <sub>50</sub>		
SI	Selective index = cytotoxic IC <sub>50</sub> /target MIC		

# Cancer Cell Codes

This set of codes for 270 cancer cells, named as **CCC code**, are defined and tried out in the books for the first time by the authors.

<b>1A9</b>	hmn ovarian cancer (cell).	<b>CaEs-17</b>	hmn esophageal cancer (cell).
<b>212</b>	inducible <i>Ha-ras</i> oncogene transformed from the NIH/3T3 cell line.	<b>CAKI</b>	hmn renal cancer (cell).
<b>308</b>	cultured mouse epidermal cells.	<b>CAKI-1</b>	hmn renal cancer (cell).
<b>3LL</b>	mus Lewis lung cancer (cell).	<b>Calu1</b>	hmn lung cancer (cell).
<b>3PS</b>	mouse leukemia (cell).	<b>Capan1</b>	pancreas cancer (cell).
<b>780-6</b>	renal cancer (cell).	<b>Capan2</b>	pancreas cancer (cell).
<b>9KB</b>	hmn epidermatoid nasopharyngeal carcinoma (cell).	<b>CaSki</b>	hmn cervical carcinoma (cell).
<b>9L</b>	rat glioma (cell).	<b>CEM</b>	leukemia (cell).
<b>9PS</b>	mouse lymphocytic leukemia (cell).	<b>CHAGO</b>	hmn undifferentiated lung cancer (cell).
<b>A2780</b>	hmn ovarian cancer (cell).	<b>CNE</b>	hmn nasopharyngeal carcinoma (cell).
<b>A375</b>	hmn melanoma (cell).	<b>Col1</b>	hmn colorectal cancer (cell).
<b>A431</b>	hmn epidermic cancer (cell).	<b>Col2</b>	hmn colorectal cancer (cell).
<b>A498</b>	hmn renal cancer (cell).	<b>COLO320DM</b>	hmn colorectal cancer (cell).
<b>A549</b>	hmn non-small cell lung cancer (cell).	<b>Colon205</b>	colorectal cancer (cell).
<b>ACHN</b>	hmn renal cancer (cell).	<b>Colon26-L5</b>	mus colorectal cancer (cell).
<b>AGS</b>	gastric adenocarcinoma (cell).	<b>COS-7</b>	monkey kidney cells.
<b>APM1840</b>	hmn leukemia (cell).	<b>CPAE</b>	calf pulmonary arterial endothelial cells.
<b>B16</b>	mouse melanoma (cell).	<b>CT-26</b>	mus colorectal cancer (cell).
<b>B16(F-10)</b>	mouse melanoma (cell).	<b>CTV1</b>	hmn leukemia (cell).
<b>BAEC</b>	bovine aortic endothelial cells.	<b>CXF94L</b>	hmn tumor (cell).
<b>BC</b>	hmn breast cancer (cell).	<b>DLD</b>	hmn colorectal adenocarcinoma (cell).
<b>BC-1</b>	hmn breast cancer (cell).	<b>DLD-1</b>	hmn colorectal adenocarcinoma (cell).
<b>BCA-1</b>	hmn breast cancer (cell).	<b>DMS114</b>	hmn lung cancer (cell).
<b>Bcap37</b>	hmn breast cancer (cell).	<b>DMS273</b>	hmn lung cancer (cell).
<b>Bel7402</b>	hmn liver cancer (cell).	<b>DU145</b>	prostatic cancer (cell).
<b>Bel7405</b>	hmn liver cancer (cell).	<b>EAC</b>	Ehrlich ascites cancer (cell).
<b>BGC823</b>	hmn gastric cancer (cell).	<b>EJ-1</b>	hmn bladder cancer (cell).
<b>BIU87</b>	bladder cancer (cell).	<b>FM3A</b>	mus breast cancer (cell).
<b>BL6</b>	mouse melanoma (cell).	<b>H.Ep.-2</b>	hmn cutis cancer cells in throat.
<b>Bowes</b>	skin cancer cells.	<b>H116</b>	hmn colorectal cancer (cell).
<b>Bre04</b>	hmn breast cancer (cell).	<b>H9</b>	lymphocytes.
<b>BSY1</b>	breast cancer (cell).	<b>HBC4</b>	breast cancer (cell).
<b>BT474</b>	hmn galactophore cancer (cell).	<b>HBC5</b>	breast cancer (cell).
<b>BT549</b>	hmn galactophore cancer (cell).	<b>HCC2998</b>	hmn colorectal cancer (cell).
<b>BXPC3</b>	pancreas cancer (cell).	<b>HCT</b>	hmn colorectal cancer (cell).
<b>C6</b>	rat glioma (cell).	<b>HCT116</b>	hmn colorectal cancer (cell).
<b>CA</b>	hmn liver cancer (cell).	<b>HCT15</b>	hmn colorectal cancer (cell).

**HCT8** hmn colorectal cancer (cell).  
**HEK-293** hmn epithelial kidney cell.  
**HEL** hmn embryonic lung fibrocytes.  
**HeLa** culture cervical epithelial cancer (cell) from Henrietta Lack.  
**HeLa ATCC-17** hmn cervical epithelial cancer (cell).  
**HeLa-S3** hmn cervical epithelial cancer (cell).  
**HELF** normal hmn embryo lung fibroblasts.  
**Hep2** hmn liver cancer (cell).  
**Hep2,2,15** hmn liver cancer (cell) transfected with hepatitis B virus.  
**Hep3B** hmn liver cancer (cell).  
**Hepa** hmn liver cancer (cell).  
**Hepa1c1c7** mus liver cancer (cell).  
**Hepa59T/VGH** hmn liver cancer (cell).  
**HepG2** hmn liver cancer (cell).  
**HEPZ** hmn epithelial cancer (cell).  
**HFF** hmn foreskin fibroblasts.  
**HGF** normal hmn gingival fibroblast cells.  
**HL-60** hmn acute promyelocytic leukemia (cell).  
**HM02** hmn melanoma (cell).  
**HMC-1** hmn leukemic mast cells.  
**HMEC** hmn microvascular endothelial cells.  
**HO-8910** hmn ovarian cancer (cell).  
**HOG.R5** green fluorescent protein (GFP)-based reporter cell.  
**HONE-1** hmn nasopharyngeal carcinoma (cell).  
**HOP-62** non-small cell lung cancer (cell).  
**Hs578T** hmn breast cancer (cell).  
**Hs740T** hmn gastric cancer (cell).  
**Hs742T** hmn breast cancer (cell).  
**Hs756T** hmn gastric cancer (cell).  
**HSC-2** hmn oral squamous cell carcinoma cells.  
**HSG** hmn salivary gland tumor (cell).  
**HT** sarcoma (cell).  
**HT1080** hmn fibrosarcoma (cell).  
**HT29** hmn colorectal cancer (cell).  
**HT3** hmn cervical carcinoma (cell).  
**hTERT-RPE1** hmn telomerase reverse transcriptase-retinal pigment epithelial cells.  
**Huh7** hmn hepatoma (cell).  
**HUVEC** hmn umbilical vein endothelial cell.  
**Jurkat-T** hmn T-cell leukemia (cell).  
**K562** hmn leukemia (cell).  
**K562/ADM** hmn leukemia (cell) of adriamycin-resistant.  
**Kato3** hmn gastric cancer (cell).  
**KB** hmn nasopharyngeal carcinoma (cell).  
**KB15** hmn nasopharyngeal carcinoma (cell).  
**KB16** hmn nasopharyngeal carcinoma (cell).  
**KB3** hmn nasopharyngeal carcinoma (cell).  
**KBV200** MDR nasopharyngeal carcinoma (cell).  
**KB-VIN** vincristine-resistant nasopharyngeal carcinoma (cell).  
**Ketr3** hmn renal cancer (cell).  
**KG-1** hmn leukemia (cell).  
**KM12** hmn colorectal cancer (cell).  
**KM20L2** hmn colorectal cancer (cell).  
**KU-1** hmn bladder cancer (cell).  
**L<sub>1210</sub>** Lymphocytic leukemia (cell).  
**L5178Y** lymphosarcoma (cell).  
**L-6** rat skeletal myoblasts.  
**L<sub>615</sub>** mouse spleen leukemia (cell).  
**L<sub>7212</sub>** mouse leukemia (cell).  
**L-929** fibrosarcoma (cell).  
**LLC** mouse Lewis lung cancer (cell).  
**LMTK** mouse fiber cells.  
**LNCaP** hmn prostatic cancer (cell).  
**LNCaP-FGC** hmn prostatic cancer (cell).  
**LO2** hmn liver cell.  
**LoVo** hmn colorectal cancer (cell).  
**LoVo/Doxo** hmn colorectal cancer cell, drug-resistant subclone.  
**LOX** melanoma (cell).  
**LOX-IMVI** melanoma (cell).  
**LS174T** colorectal cancer (cell).  
**Lu04** hmn lung cancer (cell).  
**Lu1** hmn lung cancer (cell).  
**LXFL529L** hmn large cell lung cancer (cell).  
**M1** mus myelocytic leukemia (cell).  
**M14** melanoma (cell).  
**M4BEU** hmn melanoma (cell).  
**M5076** ovarian sarcoma (cell).  
**Ma7373** mus breast cancer (cell).  
**MALME-3M** melanoma (cell).  
**MBT-2** mus bladder cancer (cell).  
**MCF7** hmn breast cancer (cell).  
**MCF7/6** hmn breast cancer (cell).  
**MCF7/ADR-RES** hmn breast cancer (cell).  
**MCF7-ras** hmn breast cancer (cell).  
**MDA231** hmn breast cancer (cell).  
**MDA-MB-231** hmn breast cancer (cell).  
**MDA-MB-435** hmn breast cancer (cell).  
**MDCK** Madin-Darby Canine.  
**MEL-28** hmn melanoma cell.  
**Meth-A** Meth-A sarcoma (cell).  
**MGc803** hmn gastric adenocarcinoma (cell).  
**MH-60** mus leukemia (cell).  
**MI4** melanoma (cell).  
**MIA-PaCa-2** hmn pancreas cancer (cell).  
**MK1** hmn gastric cancer (cell).  
**MKN1** hmn gastric cancer (cell).  
**MKN28** hmn gastric cancer (cell).  
**MKN45** hmn gastric cancer (cell).  
**MKN7** hmn gastric cancer (cell).  
**MKN74** hmn gastric cancer (cell).  
**MM1** highly invasive clone isolated from parental rat ascites hepatoma AH130 cells.  
**Molt4** hmn lymphoma (cell).  
**Mono-Mac-6** mononuclear cells.  
**MQc80-3** gastric adenocarcinoma (cell).  
**MRC-5** hmn diploid embryonic cells.

**MS301** mus breast cancer (cell).  
**MS310** mus breast cancer (cell).  
**N04** hmn neuroma (cell).  
**NCI-H1417** hmn small cell lung cancer (cell).  
**NCI-H187** hmn small cell lung cancer (cell).  
**NCI-H226** hmn non-small cell lung cancer (cell).  
**NCI-H23** hmn lung cancer (cell).  
**NCI-H460** hmn lung cancer (cell).  
**NCI-H522** hmn lung cancer (cell).  
**NK/LY** ascites cancer (cell).  
**NSCLC-N6** hmn non-small cell lung cancer (cell).  
**NUGC** hmn gastric cancer (cell).  
**NUGC-3** hmn gastric cancer (cell).  
**NUGC-4** hmn gastric cancer (cell).  
**OVCAR-2780** ovarian adenocarcinoma (cell).  
**OVCAR-3** ovarian adenocarcinoma (cell).  
**OVCAR-4** ovarian adenocarcinoma (cell).  
**OVCAR-5** ovarian adenocarcinoma (cell).  
**OVCAR-8** ovarian adenocarcinoma (cell).  
**P1534** mus, transplanted leukemia (cell).  
**P<sub>388</sub>** mouse lymphocytic leukemia (cell).  
**P<sub>388</sub>/ADM** mouse lymphocytic leukemia (cell) of adriamycin-resistant.  
**PACA-2** hmn pancreas cancer (cell) .  
**PANC1** pancreas cancer (cell).  
**PBMC** peripheral blood mononuclear cells.  
**PC12** hmn lung cancer (cell).  
**PC3** hmn prostatic cancer (cell).  
**PC-6** hmn lung cancer (cell).  
**PLC/PRF/5** hmn liver cancer (cell).  
**PSN1** hmn pancreas cancer (cell).  
**PTX10** ovarian cancer cells with  $\beta$ -tubulin mutation.  
**QGY-7703** hmn liver cancer (cell).  
**RAW264.7** mouse macrophages.  
**RBL-2H3** rat basophilic cells.  
**RL33** rbt lung cancer (cell).  
**RPMI-7951** melanoma (cell).  
**RPMI-8226** leukemia (cell).  
**RXF-393** renal cancer (cell).  
**RXF-631L** renal cancer (cell).  
**S<sub>180</sub>** mouse sarcoma (cell).  
**S37** mouse sarcoma (cell).  
**Sca7901** hmn gastric adenocarcinoma (cell).  
**SCL** hmn gastric cancer (cell).  
**SCL-37\*6** hmn gastric cancer (cell).  
**SCL-6** hmn gastric cancer (cell).  
**SCL-9** hmn gastric cancer (cell).  
**SF268** hmn brain tumor (cell).  
**SF295** hmn brain tumor (cell).  
**SF539** hmn brain tumor (cell).  
**SGC** hmn gastric cancer (cell).  
**SGC7901** hmn gastric cancer (cell).  
**SiHa** hmn cervical carcinoma (cell).  
**SKBR3** hmn breast cancer (cell).  
**SKCO1** colorectal cancer (cell).  
**SK-MEL** hmn caucasian melanoma (cell).  
**SK-MEL-2** hmn melanoma (cell).  
**SK-MEL-28** hmn melanoma (cell).  
**SK-MEL-5** hmn melanoma (cell).  
**SK-MES-1** bronchogenic carcinoma cell.  
**SK-OV-3** ovarian adenocarcinoma (cell).  
**SMMC-7721** hmn liver cancer (cell).  
**SNB75** hmn brain tumor (cell).  
**SNB78** hmn brain tumor (cell).  
**SNU638** hmn gastric adenocarcinoma (cell).  
**SR** leukemia (cell).  
**St4** gastric cancer (cell).  
**SVR** mouse endothelial cells.  
**SW620** hmn colorectal adenocarcinoma (cell).  
**T24** hmn liver cancer (cell).  
**T24S** hmn bladder cancer (cell).  
**T47D** hmn breast cancer (cell).  
**T98G** hmn caucasian glioblastoma (cell).  
**TK10** renal cancer (cell).  
**Tmolt3** hmn leukemia (cell).  
**U14** mouse cervical carcinoma (cell).  
**U251** brain tumor (cell).  
**U373** caucasian glioblastoma (cell).  
**U4** mouse cervical carcinoma (cell).  
**U-87-MG** caucasian glioblastoma (cell).  
**U937** hmn monocytic leukemia (cell).  
**UACC62** melanoma (cell).  
**UO-31** renal cancer (cell).  
**Vero** green monkey kidney tumour (cell).  
**W<sub>256</sub>** rat Walker sarcoma (cell).  
**WEHI-164** mus fibrosarcoma (cell).  
**WHCO1** hmn esophageal cancer (cell).  
**WI-38** hmn lung fibrocyte (normal hmn diploid fibrocyte).  
**WiDr** colorectal adenocarcinoma (cell).  
**Wish** transformed epithelial tumour (cell).  
**XF-498** hmn tumor (cell).  
**ZR-75-1** hmn breast cancer (cell).



## **Volume 2 Isolated Compounds (D-G)**

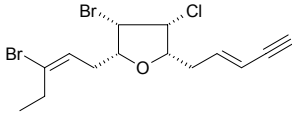


# D

## 4595 Dactylone

$C_{14}H_{17}Br_2ClO$  (396.55). mp 62–63°C,  $[\alpha]_D^{25} = -38.2^\circ$  ( $c = 0.19$ ,  $CHCl_3$ ).

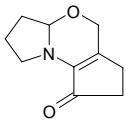
Source: *Laurencia* sp., *Aplysia dactylomela*. Ref: 2306.



## 4596 Daechu alkaloid A

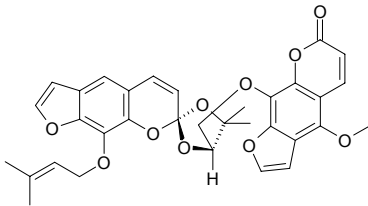
$C_{10}H_{13}NO_2$  (179.22). Source: WU CI ZAO *Ziziphus jujuba* var. *inermis*.

Ref: 660.



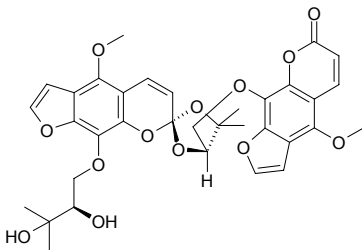
## 4597 Dahuribirin A

$C_{33}H_{30}O_{10}$  (586.60). Colorless viscous oil,  $[\alpha]_D^{28} = -3.6^\circ$  ( $c = 0.48$ , dioxane). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 4118.



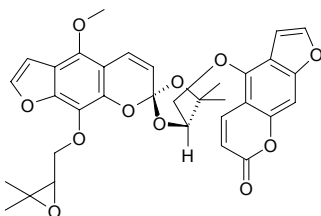
## 4598 Dahuribirin B

$C_{34}H_{34}O_{13}$  (650.64). Colorless viscous oil,  $[\alpha]_D^{30} = -4.6^\circ$  ( $c = 0.59$ , dioxane). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 4118.



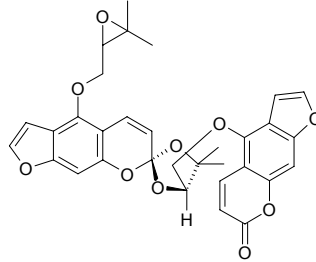
## 4599 Dahuribirin C

$C_{33}H_{30}O_{11}$  (602.60). Colorless viscous oil,  $[\alpha]_D^{31} = +20.0^\circ$  ( $c = 0.48$ , dioxane). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 4118.



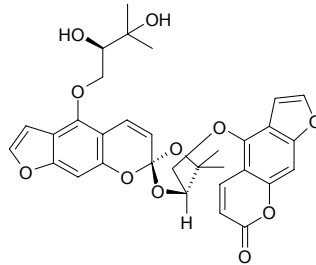
## 4600 Dahuribirin D

$C_{32}H_{28}O_{10}$  (572.57). Colorless viscous oil,  $[\alpha]_D^{24} = -0.22^\circ$  ( $c = 0.65$ , dioxane). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 4118.



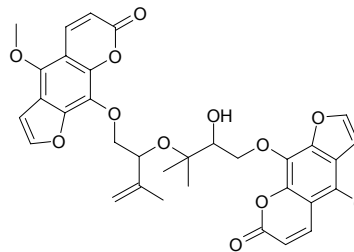
## 4601 Dahuribirin E

$C_{32}H_{30}O_{11}$  (590.59). Colorless viscous oil,  $[\alpha]_D^{24} = +4.6^\circ$  ( $c = 0.62$ , dioxane). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 4118.



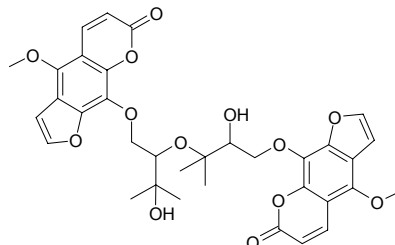
## 4602 Dahuribirin F

$C_{34}H_{32}O_{12}$  (632.63). Colorless viscous oil,  $[\alpha]_D^{24} = -1.1^\circ$  ( $c = 0.49$ , dioxane). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 4118.



## 4603 Dahuribirin G

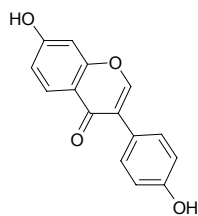
$C_{34}H_{34}O_{13}$  (650.64). Colorless viscous oil,  $[\alpha]_D^{24} = +5.2^\circ$  ( $c = 0.54$ , dioxane). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 4118.



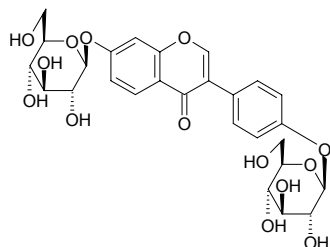


**4604 Daidzein**

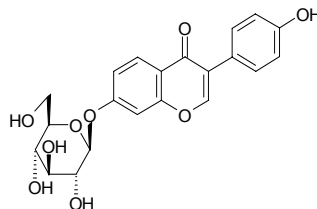
4',7-Dihydroxyisoflavone [486-66-8] C<sub>15</sub>H<sub>10</sub>O<sub>4</sub> (254.24). **Pharm:** Antifungal; antispasmodic (mus small intestine); CVS activity (enhances collateral circulation and oxygen consumption upon lack of blood in myocardium); estrogenic activity; increases coronary flow (narcosis dog); lipase inhibitor; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; cytotoxic (KB, IC<sub>50</sub> > 75 μmol/L, Helenalin, IC<sub>50</sub> = (0.64±0.08) μmol/L, Melphalan, IC<sub>50</sub> = (6.0±0.5) μmol/L; Mono-Mac-6, IC<sub>50</sub> > 75 μmol/L, Helenalin, IC<sub>50</sub> = (3.1±0.3) μmol/L; Jurkat-T, IC<sub>50</sub> > 75 μmol/L, Helenalin, IC<sub>50</sub> = (1.14±0.08) μmol/L, Melphalan, IC<sub>50</sub> = (9.1±0.8) μmol/L)<sup>[5077]</sup>; antibacterial (*Staphylococcus aureus*, MIA = 1.00 μg, Chloramphenicol, MIA = 0.0001 μg; *Bacillus subtilis*, MIA = 5.00 μg, Chloramphenicol, MIA = 0.0001 μg)<sup>[5247]</sup>; antifungal (*Candida mycoderma*, MIA = 0.05 μg, control Miconazole, MIA = 0.0001 μg)<sup>[5247]</sup>; antioxidant (DPPH scavenger, TLC, MIA = 0.1 μg, IC<sub>50</sub> = 380 μg/mL; control Quercetin, MIA < 0.05 μg, IC<sub>50</sub> = 7 μg/mL, Gallic acid, MIA < 0.05 μg, IC<sub>50</sub> = 4 μg/mL; Ascorbic acid, MIA < 0.10 μg, IC<sub>50</sub> = 18 μg/mL)<sup>[5247]</sup>. **Source:** DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.0058% dw)<sup>[4630]</sup>, E MEI GE *Pueraria omeiensis* (root: content = 0.055%)<sup>[5508]</sup>, FEN GE *Pueraria lobata* var. *thomsonii* (root: mean content of 2 origins = 0.035%)<sup>[5508]</sup>, GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*] (root: mean content of 10 origins = 0.137%)<sup>[5508]</sup>, HEI DA DOU *Glycine max*, HONG CHE ZHOU CAO *Trifolium pratense*, HUANG HUA MU *Piptanthus nepalensis*, HUANG MAO GE *Pueraria calycina* (root: content = 0.030%)<sup>[5508]</sup>, JI KUAN CI TONG *Erythrina latissima* (stem wood), MU XU *Medicago sativa*, SAN LIE YE GE *Pueraria phaseoloides* (root: content = 0.090%)<sup>[5508]</sup>, SAN XIAO CAO *Trifolium repens*, SHAN DOU GEN *Sophora subprostrata* [Syn. *Sophora tonkinensis*], SHI YONG GE *Pueraria edulis* (root: content = 0.063%)<sup>[5508]</sup>, SI TE WEN HUANG TAN *Dalbergia stevensonii*, YUN NAN GE TENG *Pueraria peduncularis* (root: content = 0.053%)<sup>[5508]</sup>, *Bituminaria morisiana* (leaf). **Ref:** 2, 4, 658, 660, 4415, 4630, 5077, 5247, 5508.

**4605 Daidzein 4',7-diglucoside**

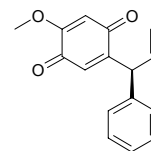
C<sub>27</sub>H<sub>30</sub>O<sub>14</sub> (578.53). **Source:** GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*] (root: mean content of 7 origins = 0.453%)<sup>[5508]</sup>, GAN GE TENG GEN *Pueraria thomsonii*. **Ref:** 2, 660, 5508.

**4606 Daidzin**

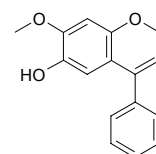
Daidzioside [552-66-9] C<sub>21</sub>H<sub>20</sub>O<sub>9</sub> (416.39). **Source:** DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.0074% dw)<sup>[4630]</sup>, E MEI GE *Pueraria omeiensis* (root: content = 1.0–5%)<sup>[5508]</sup>, FEN GE *Pueraria lobata* var. *thomsonii* (root: content = 1.51%)<sup>[5508]</sup>, GAN GE TENG GEN *Pueraria thomsonii* (root: content = 0.158%)<sup>[5508]</sup>, GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*] (root: content = 0.78%)<sup>[5508]</sup>, SAN LIE YE GE *Pueraria phaseoloides* (root: content = 0.72%)<sup>[5508]</sup>, SHI YONG GE *Pueraria edulis* (root: content = 0.44%)<sup>[5508]</sup>. **Ref:** 2, 660, 4630, 5508.

**4607 Dalbergenone**

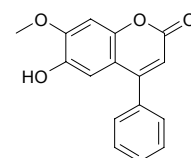
[2543-95-5] C<sub>16</sub>H<sub>14</sub>O<sub>3</sub> (254.29). mp 114–116°C. **Source:** JIANG ZHEN XIANG *Dalbergia odorifera*. **Ref:** 6.

**4608 Dalbergichromene**

7-Methoxy-4-phenyl-2H-1-benzopyran-6-ol [32066-31-2] C<sub>16</sub>H<sub>14</sub>O<sub>3</sub> (254.29). mp 99–100°C. **Source:** JIANG ZHEN XIANG *Dalbergia odorifera*. **Ref:** 6.

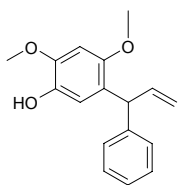
**4609 Dalbergin**

6-Hydroxy-7-Methoxy-4-phenylcoumarin [482-83-7] C<sub>16</sub>H<sub>12</sub>O<sub>4</sub> (268.27). mp 210°C. **Pharm:** CVS activity (increases coronary flow and slows heart rate, perfused heart of rbt *in vitro*). **Source:** FEI ZHOU HUANG TAN *Dalbergia melanoxydon*, HE AN HUANG TAN *Dalbergia riparia*, JIANG ZHEN XIANG *Dalbergia odorifera*, JIAO ZHI HUANG TAN *Dalbergia cochinchinensis* (stem: yield = 0.0024% dw)<sup>[4716]</sup>, SI TE WEN HUANG TAN *Dalbergia stevensonii*, XI A LA HUANG TAN *Dalbergia cearensis*, XIAO DAO XING HUANG TAN *Dalbergia cultrata*, YIN DU HUANG TAN *Dalbergia sissoo*. **Ref:** 6, 658, 4716.

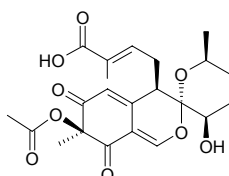


**4610 Dalbergiphenol**

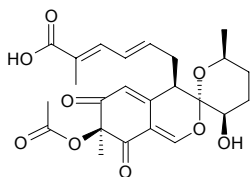
$C_{17}H_{18}O_3$  (270.33). **Pharm:** Testosterone 5 $\alpha$ -reductase inhibitor (25 $\mu$ g/mL, InRt = 8.2%, 50 $\mu$ g/mL, InRt = 18.9%, 100 $\mu$ g/mL, InRt = 51.8%; control Glycyrrhetic acid, 25 $\mu$ g/mL, InRt = 31.7%, 50 $\mu$ g/mL, InRt = 64.7%, 100 $\mu$ g/mL, InRt = 87.1%). **Source:** JIAO ZHI HUANG TAN *Dalbergia cochinchinensis* (stem: yield = 0.0074%dw). **Ref:** 4716.

**4611 Daldinin C**

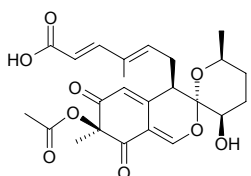
$C_{22}H_{26}O_9$  (434.45). **Pharm:** Antioxidant (DPPH scavenger,  $IC_{50}$  = 412.0 $\mu$ mol/L, control Ascorbic acid,  $IC_{50}$  = 16.5 $\mu$ mol/L). **Source:** AN ZONG TAN TUAN JUN *Hypoxyton fuscum*. **Ref:** 3771.

**4612 Daldinin E**

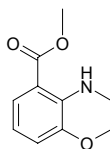
(2*E*,4*E*)-Hexa-2,4-dienoic acid, 2-methyl-7*S*-(acetyloxy)-3',4,4',5',6,6',7,8-octahydro-3'-hydroxy-6',7-dimethyl-6,8-dioxospiro[3*H*-2-benzopyran-3,2'-[2*H*]pyran]-4-yl ester  $C_{24}H_{28}O_9$  (460.49). Oil,  $[\alpha]_D^{20}$  = +87.7° ( $c$  = 0.3,  $CHCl_3$ ). **Pharm:** Antioxidant (DPPH scavenger,  $IC_{50}$  = 178.9 $\mu$ mol/L, control Ascorbic acid,  $IC_{50}$  = 16.5 $\mu$ mol/L). **Source:** AN ZONG TAN TUAN JUN *Hypoxyton fuscum*. **Ref:** 3771.

**4613 Daldinin F**

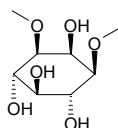
(2*E*,4*E*)-Hexa-2,4-dienoic acid, 4-methyl-7*S*-(acetyloxy)-3',4,4',5',6,6',7,8-octahydro-3'-hydroxy-6',7-dimethyl-6,8-dioxospiro[3*H*-2-benzopyran-3,2'-[2*H*]pyran]-4-yl ester  $C_{24}H_{28}O_9$  (460.49). Oil,  $[\alpha]_D^{20}$  = +28.9° ( $c$  = 0.4,  $CHCl_3$ ). **Pharm:** Antioxidant (DPPH scavenger,  $IC_{50}$  = 212.3 $\mu$ mol/L, control Ascorbic acid,  $IC_{50}$  = 16.5 $\mu$ mol/L). **Source:** AN ZONG TAN TUAN JUN *Hypoxyton fuscum*. **Ref:** 3771.

**4614 Damascenine**

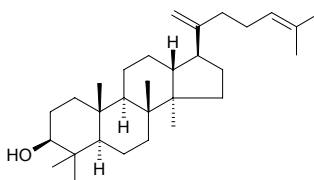
[483-64-7]  $C_{10}H_{13}NO_3$  (195.22). **Pharm:** Anti-inflammatory (rat, swollen foot model); antipyretic. **Source:** YE HEI ZHONG CAO *Nigella arvensis*, HEI ZHONG CAO *Nigella damascena*. **Ref:** 658.

**4615 Dambonitol**

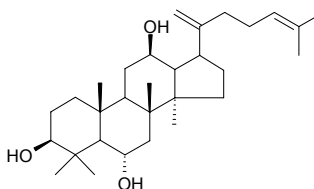
[532-94-4]  $C_8H_{16}O_6$  (208.21). mp 210°C. **Source:** JIA ZHU TAO *Nerium indicum*, LUO SHI TENG *Trachelospermum jasminoides*. **Ref:** 6.

**4616 Dammar-20,24-dien-3 $\beta$ -ol**

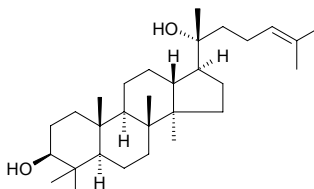
[20460-34-8]  $C_{30}H_{50}O$  (426.73). mp 136~138°C. **Source:** WU YUE CHA *Antidesma bunius*. **Ref:** 6.

**4617 Dammar-20(21),24-diene-3 $\beta$ ,6 $\alpha$ ,12 $\beta$ -triol**

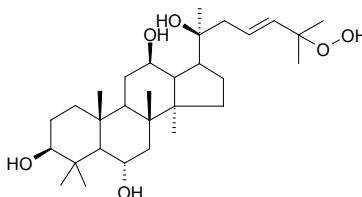
$C_{30}H_{50}O_3$  (458.73). Colorless fascicular crystals (MeOH), mp 145~148°C. **Source:** XI YANG SHEN JING YE *Panax quinquefolium*. **Ref:** 4874.

**4618 Dammar-24-ene-3 $\beta$ ,20-diol I**

[19132-83-3]  $C_{30}H_{52}O_2$  (444.75). mp 142~144°C. **Source:** MANG GUO SHU PI *Mangifera indica*. **Ref:** 6.

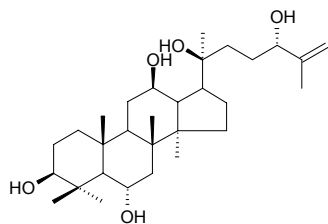
**4619 20(S)-Dammar-23-ene-25-hydroperoxyl-3 $\beta$ ,6 $\alpha$ ,12 $\beta$ ,20-tetrol**

$C_{30}H_{52}O_6$  (508.75). White crystalline powder, mp 142~145°C. **Source:** XI YANG SHEN JING YE *Panax quinquefolium*. **Ref:** 4874.

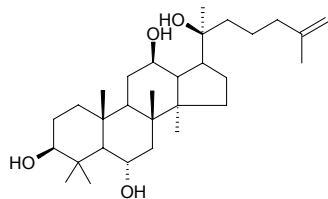


**4620 20(S),24(S)-Dammar-25(26)-ene-3 $\beta$ ,6 $\alpha$ ,12 $\beta$ ,20,24-pentanol**

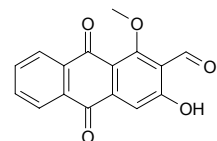
C<sub>30</sub>H<sub>52</sub>O<sub>5</sub> (492.75). White crystalline powder, mp 142–144°C. Source: XI YANG SHEN JING YE *Panax quinquefolium*. Ref: 4874.

**4621 20(S)-Dammar-25(26)-ene-3 $\beta$ ,6 $\alpha$ ,12 $\beta$ ,20-tetrol**

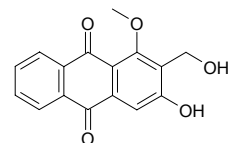
C<sub>30</sub>H<sub>52</sub>O<sub>4</sub> (476.75). Colorless fascicular crystals (MeOH), mp 259–260°C. Source: XI YANG SHEN JING YE *Panax quinquefolium*. Ref: 4874.

**4622 Damnacanthal**

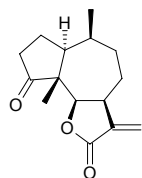
[477-84-9] C<sub>16</sub>H<sub>10</sub>O<sub>5</sub> (282.26). mp 208°C. Source: HU CI *Damnacanthus indicus*, TU LIAN QIAO *Hymenodictyon excelsum*. Ref: 6.

**4623 Damnacanthol**

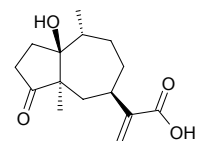
[477-83-8] C<sub>16</sub>H<sub>12</sub>O<sub>5</sub> (284.27). mp 288°C. Source: HU CI *Damnacanthus indicus*. Ref: 6.

**4624 Damsin**

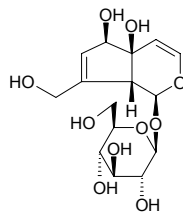
2,3-Dihydroambrosin [1216-42-8] C<sub>15</sub>H<sub>20</sub>O<sub>3</sub> (248.32). mp 109–111°C; 124–125°C. Pharm: Schistosomacide; cytotoxic (KB, ED<sub>50</sub> > 100µg/mL); molluscicide. Source: PU TONG TUN CAO *Ambrosia ambrosioides*, TUN CAO *Ambrosia artemisiifolia*. Ref: 4, 658.

**4625 Damsinic acid**

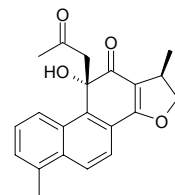
[22844-19-5] C<sub>15</sub>H<sub>22</sub>O<sub>4</sub> (266.34). mp 112–113°C. Source: TUN CAO *Ambrosia artemisiifolia*. Ref: 1521.

**4626 Danmelittoside**

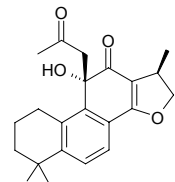
Monomelittoside C<sub>15</sub>H<sub>22</sub>O<sub>10</sub> (362.34). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], OU ZHOU MI FENG HUA *Melittis melissophyllum*. Ref: 2, 1521.

**4627 Danshenol A**

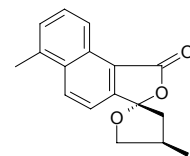
[189308-08-5] C<sub>21</sub>H<sub>20</sub>O<sub>4</sub> (336.39). Taupe acicular crystals, mp 182°C (methanol), [α]<sub>D</sub><sup>25</sup> = –136.4° (c = 0.07, chloroform). Pharm: Aldose reductase inhibitor (rat eye lens, IC<sub>50</sub> = 0.1µmol/L). Source: DAN SHEN *Salvia miltiorrhiza*. Ref: 993.

**4628 Danshenol B**

[189308-09-6] C<sub>22</sub>H<sub>26</sub>O<sub>4</sub> (354.45). Yellow acicular crystals, mp 176°C (methanol), [α]<sub>D</sub><sup>25</sup> = –131.6° (c = 0.10, chloroform). Pharm: Aldose reductase inhibitor (rat eye lens, IC<sub>50</sub> = 1.75µmol/L). Source: DAN SHEN *Salvia miltiorrhiza*. Ref: 993.

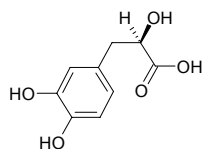
**4629 Danshenspiroketalactone**

[100414-80-0] C<sub>17</sub>H<sub>16</sub>O<sub>3</sub> (268.32). White acicular crystals, mp 203–205°C. Source: DAN SHEN *Salvia miltiorrhiza*, GAN XI SHU WEI CAO *Salvia przewalskii*. Ref: 38, 4538.

**4630 Danshensu**

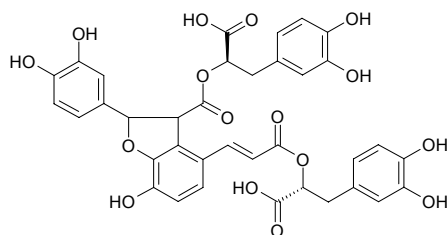
[76822-21-4] C<sub>9</sub>H<sub>10</sub>O<sub>5</sub> (198.18). White, long acicular crystals, mp 84–86°C; sodium salt: white acicular crystals, mp 255–258°C, [α]<sub>D</sub><sup>20.5</sup> = +35° (water); [α]<sub>D</sub><sup>27.5</sup> = +14.8° (1N HCl). Pharm: Coronary vasodilator (pig isolated coronary artery, 1.0µg/mL, also against coronary contraction induced by morphine or propranolol)<sup>[5501]</sup>; increases tolerance to anoxia (mouse ip300mg/kg or 50mg/kg, clearly extends survival time)<sup>[5501]</sup>; anti-ischemia myocardial (rat im 20mg/kg, ischemia myocardial induced by hypophysin)<sup>[5501]</sup>; anti-myocardial infarction (dog im 8mg/kg, rbt im 10mg/kg)<sup>[5501]</sup>; antioxidant (strong O<sub>2</sub><sup>-</sup> superoxide anion scavenger, protects myocardial ischemia-reperfusion injury in rat myocardium mitochondrial membrane)<sup>[5501]</sup>; improves barrier of microcirculation (rbt iv in ear 4–6mg/kg, induced by macromolecular dextran; mouse drop iv

1mg/0.1mL, induced by arterenol in mesentery)<sup>[5501]</sup>, platelet aggregation inhibitor (rbt iv in ear 20mg/kg; rat iv 100mg/kg; *in vitro* 5~600µg/mL, distinctly inhibits platelet aggregation induced by ADP or thrombin)<sup>[5501]</sup>.  
**Source:** DAN SHEN *Salvia miltiorrhiza* (dried root: mean content = 0.664%)<sup>[5508]</sup> **Ref:** 661, 5501, 5508.



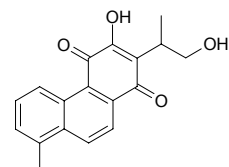
#### 4631 Danshensuan B

Salvianolic acid B [115939-25-8] C<sub>36</sub>H<sub>30</sub>O<sub>16</sub> (718.63). Amorphous yellowish powder, [α]<sub>D</sub><sup>18</sup> = +92° (c = 0.07, ethanol). **Pharm:** Free radical scavenger; fibrinolytic function; increases coronary flow; antioxidant (inhibits lipid peroxidation strongly, induced by vitamin C-nicotinamide ADP and Fe<sup>2+</sup>-cysteine in microsomes of murine cerebral, hepatic and renal cells); main component of phenol character acid in *Salvia miltiorrhiza*. **Source:** DAN SHEN *Salvia miltiorrhiza*. **Ref:** 2, 900.



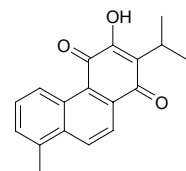
#### 4632 Danshenxinkun A

Neotanshinone A; Tanshiquinone A C<sub>18</sub>H<sub>16</sub>O<sub>4</sub> (296.33). **Pharm:** Antibacterial (*Mycobacterium tuberculosis* H37Rv, MIC = 0.78µg/mL). **Source:** DAN SHEN *Salvia miltiorrhiza*. **Ref:** 658, 1285.



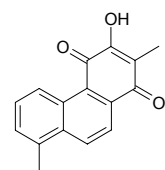
#### 4633 Danshenxinkun B

Neotanshinone B; Tanshiquinone B C<sub>18</sub>H<sub>16</sub>O<sub>3</sub> (280.33). **Pharm:** Antibacterial (*Mycobacterium tuberculosis* H37Rv, MIC = 3.1µg/mL). **Source:** DAN SHEN *Salvia miltiorrhiza*. **Ref:** 658, 1285.



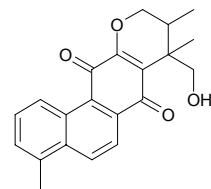
#### 4634 Danshenxinkun C

Neotanshinone C; Tanshiquinone C C<sub>16</sub>H<sub>12</sub>O<sub>3</sub> (252.27). **Pharm:** Antibacterial (*Mycobacterium tuberculosis* H37Rv, MIC = 6.3µg/mL). **Source:** DAN SHEN *Salvia miltiorrhiza*. **Ref:** 658, 1285.



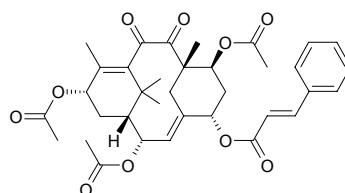
#### 4635 Danshenxinkun D

C<sub>21</sub>H<sub>20</sub>O<sub>4</sub> (336.39). Pink acicular crystals, mp 178~180°C. **Source:** DAN SHEN *Salvia miltiorrhiza*. **Ref:** 34.



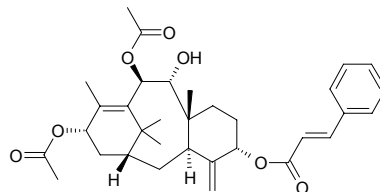
#### 4636 Dantaxusin A

5α-Cinnamoyloxy-2α,7β,13α-triacetoxy-2(3→20)abeo-taxa-4(20),11-diene e-9,10-dione C<sub>35</sub>H<sub>40</sub>O<sub>10</sub> (620.7). Colorless amorphous powder, mp 114~116°C, [α]<sub>D</sub><sup>27</sup> = +12° (c = 0.33, MeOH). **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis* (aerial parts). **Ref:** 3079.



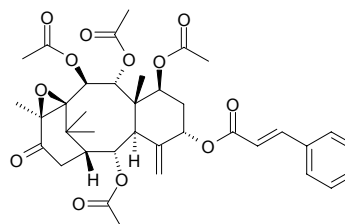
#### 4637 Dantaxusin B

5α-Cinnamoyloxy-9α-hydroxy-10β,13α-diacetoxytaxa-4(20),11-diene C<sub>33</sub>H<sub>42</sub>O<sub>7</sub> (550.7). Colorless amorphous powder, mp 245~246°C, [α]<sub>D</sub><sup>27</sup> = -8° (c = 0.33, MeOH). **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis* (aerial parts). **Ref:** 3079.



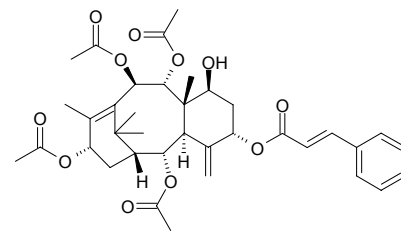
#### 4638 Dantaxusin C

C<sub>37</sub>H<sub>44</sub>O<sub>12</sub> (680.76). Colorless amorphous powder, mp 122~123°C, [α]<sub>D</sub><sup>24</sup> = +1.25° (c = 0.33, MeOH). **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis* (aerial parts). **Ref:** 4611.



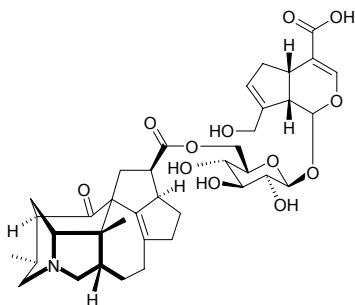
#### 4639 Dantaxusin D

C<sub>37</sub>H<sub>46</sub>O<sub>11</sub> (666.77). Colorless amorphous powder, mp 111~112 °C, [α]<sub>D</sub><sup>24</sup> = +6.88° (c = 0.33, MeOH). **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis* (aerial parts). **Ref:** 4611.

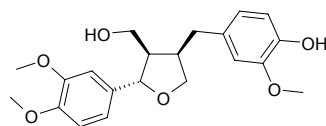


**4640 Daphcalycinoidine C**

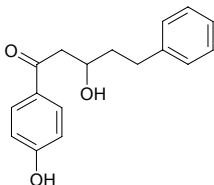
$C_{38}H_{49}NO_{12}$  (711.81). Colorless amorphous solid,  $[\alpha]_D^{22} = -15^\circ$  ( $c = 0.6$ , MeOH). Source: NIU ER FENG ZI *Daphniphyllum calycinum* (fruit: yield = 0.00042%). Ref: 4754.

**4641 Daphneligin**

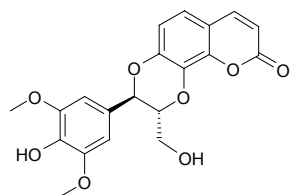
$C_{21}H_{26}O_6$  (374.44). Amorphous powder, mp 136~138°C,  $[\alpha]_D = +11.5^\circ$  ( $c = 0.10$ ,  $CHCl_3$ ) Source: YOU RUI XIANG *Daphne oleoides*. Ref: 1883.

**4642 Daphneolone**

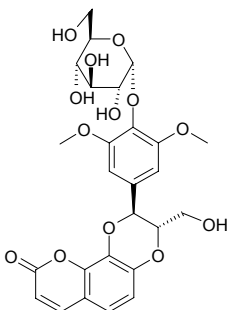
[54835-64-2]  $C_{17}H_{18}O_3$  (270.33). Source: RUI XIANG GEN *Daphne odora*. Ref: 6.

**4643 Daphneticin**

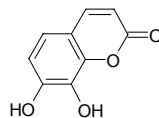
[83327-22-4]  $C_{20}H_{18}O_8$  (386.36). Pharm: Cytotoxic ( $W_{256}$ ). Source: SHAN GAN RUI XIANG *Daphne tangutica*, AO YE RUI XIANG *Daphne retusa*. Ref: 658.

**4644 Daphneticin-4''-O- $\alpha$ -D-glucopyranoside**

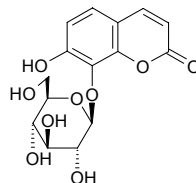
$C_{26}H_{28}O_{13}$  (548.51). mp 254~255°C,  $[\alpha]_D = +23.5^\circ$  ( $c = 0.10$ , DMSO). Source: YOU RUI XIANG *Daphne oleoides*. Ref: 2279.

**4645 Daphnetin**

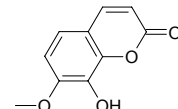
7,8-Dihydroxycoumarin [486-35-1]  $C_9H_6O_4$  (178.15). mp 257~258°C; 263~264°C. Pharm: Analgesic; antibacterial (*Staphylococcus aureus*, *Bacillus coli*, *Shigella flexneri* and *Bacillus pyocyaneus*); anti-inflammatory; anti-ischemia, myocardial; immunomodulator (inhibits immune response of specific cells and that of body fluid, but enhances phagocytotic function of enterocelia  $M_{phi}$  macrophage); improves myocardium metabolism and promotes restoration of myocardial function; increases coronary flow; reduces consumption of oxygen in myocardium; sedative;  $LD_{50}$  (mus, ip) = 429mg/kg, (mus, iv) = 375mg/kg, (mus, orl) = 5.37g/kg. Source: HUI HUI DOU *Cicer arietinum*, LANG DU *Stellera chamaejasme*, QIAN JIN ZI *Euphorbia lathyris*, RUI XIANG HUA *Daphne odora*. Ref: 4, 6, 556, 658, 5501, 5507.

**4646 Daphnetin-8-glucoside**

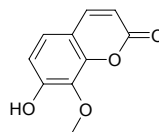
[20853-56-9]  $C_{15}H_{16}O_9$  (340.29). mp 223~224°C. Source: RUI XIANG HUA *Daphne odora*. Ref: 6.

**4647 Daphnetin-7-methyl ether**

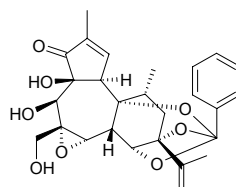
[19492-03-6]  $C_{10}H_8O_4$  (192.17). mp 175.5°C. Source: BA XIAN HUA *Hydrangea macrophylla*. Ref: 6.

**4648 Daphnetin-8-methyl ether**

Hydrangetin [485-90-5]  $C_{10}H_8O_4$  (192.17). Needles ( $C_6H_6$ ), mp 152°C, mp 157~157.5°C, mp 185°C. Pharm: Cytotoxic inactive (*in vitro*, HONE-1 and NUGC cancer cell lines, no significant activity)<sup>[3069]</sup>. Source: BA XIAN HUA *Hydrangea macrophylla*, QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*; *Artemisia caruifolia*], QUAN YUAN YE HUA *Zanthoxylum integrifolium*, ZHONG GUO XIU QIU *Hydrangea chinensis* (root)<sup>[3069]</sup>. Ref: 6, 2176, 3069.

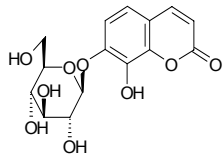
**4649 Daphnetoxin**

[28164-88-7]  $C_{27}H_{30}O_8$  (482.54). Pharm:  $LD_{50}$  (mus, orl) = 0.25mg/kg. Source: OU YA RUI XIANG *Daphne mezereum*. Ref: 658.

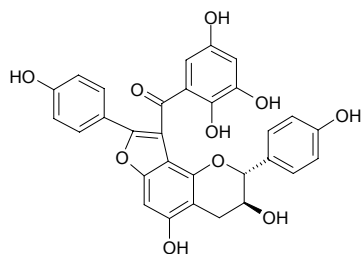


**4650 Daphnin**

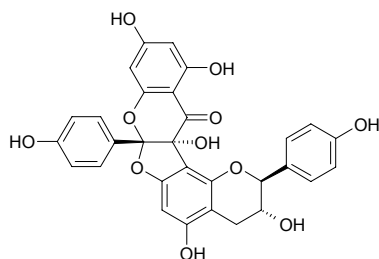
Daphnetin-7-glucoside [486-55-5]  $C_{15}H_{16}O_9$  (340.29). mp 215°C (dec).  
 Source: RUI XIANG HUA *Daphne odora*, SU MI *Setaria italica*. Ref: 6.

**4651 Daphnodorin B**

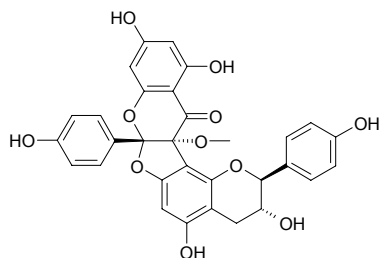
[95733-02-1]  $C_{30}H_{22}O_{10}$  (542.50). Source: LIAO GE WANG GEN  
*Wikstroemia indica*, RUI XIANG GEN *Daphne odora*. Ref: 2268, 1521.

**4652 Daphnodorin G**

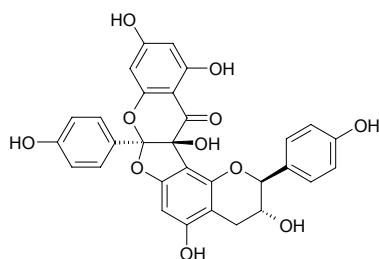
$C_{30}H_{22}O_{11}$  (558.50). Source: YUAN HUA GEN *Daphne genkwa*. Ref:  
 4868.

**4653 Daphnodorin G-3''-methyl ether**

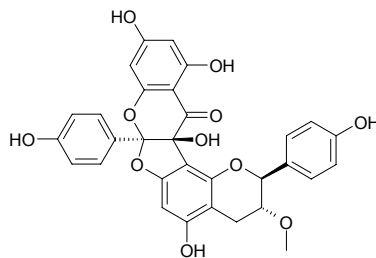
$C_{31}H_{24}O_{11}$  (572.33). Yellow amorphous powder. Source: YUAN HUA  
 GEN *Daphne genkwa*. Ref: 4868.

**4654 Daphnodorin H**

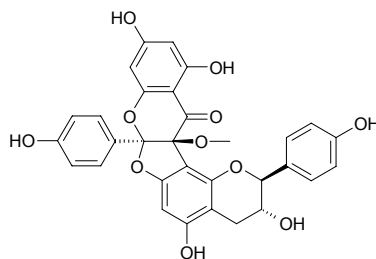
$C_{30}H_{22}O_{11}$  (558.50). Source: YUAN HUA GEN *Daphne genkwa*. Ref:  
 4868.

**4655 Daphnodorin H 3-methyl ether**

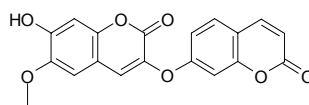
$C_{31}H_{24}O_{11}$  (572.53). Yellow amorphous powder. Source: YUAN HUA  
 GEN *Daphne genkwa*. Ref: 4868.

**4656 Daphnodorin H 3''-methyl ether**

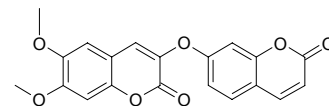
$C_{31}H_{24}O_{11}$  (572.53). Pale yellowish powder. Source: YUAN HUA GEN  
*Daphne genkwa*. Ref: 4868.

**4657 Daphnoretin**

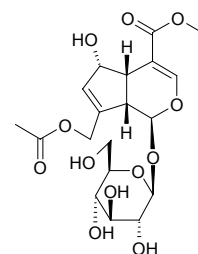
[2034-69-7]  $C_{19}H_{12}O_7$  (352.30). Yellow flossy, tiny acicular crystals  
 (ethanol) or yellow short, thick acicular crystals (acetone-pyridine), mp  
 250–252°C, 244–247°C; yellow acicular crystals (tetrahydrofuran–  
 methanol). Pharm: Antineoplastic. Source: LIAO GE WANG GEN  
*Wikstroemia indica*, JING YA MA YE RUI XIANG *Daphne gnidium*. Ref:  
 661.

**4658 Daphnoretin methyl ether**

7-Methoxydaphnoritin  $C_{20}H_{14}O_7$  (366.33). Fine acicular crystals, mp  
 238–240°C, soluble in methanol, ethanol, and insoluble in chloroform,  
 ether, and acetone. Source: LANG DU *Stellera chamaejasme*. Ref: 488.

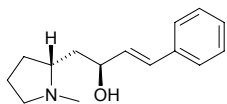
**4659 Daphylloside**

[14260-99-2]  $C_{19}H_{26}O_{12}$  (446.41). Source: JI SHI TENG *Paederia*  
*scandens*, JIAO RANG MU *Daphniphyllum macropodum*, XIE JI CU YE  
 MU *Lasianthus wallichii* (leaf). Ref: 1521, 2561, 4238.

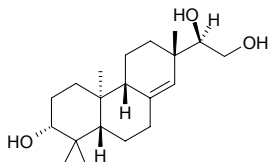


**4660 Darlinine**

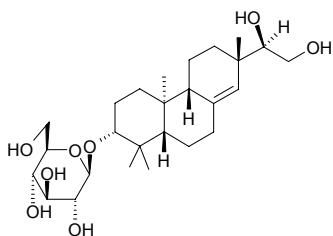
[73069-56-4]  $C_{15}H_{21}NO$  (231.34). Straw-coloured crystals (EtOH), mp 59–61°C,  $[\alpha]_D^{19} = +75^\circ$  (CHCl<sub>3</sub>). Source: *Darlingia darlingiana*. Ref: 1521.

**4661 Darutigenol**

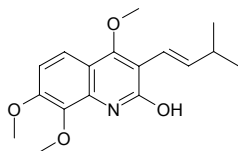
$C_{20}H_{34}O_3$  (322.49). Source: XI XIAN *Siegesbeckia orientalis* (aerial parts). Ref: 4438.

**4662 Darutoside**

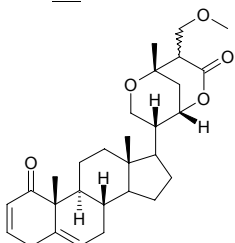
Darutin  $C_{26}H_{44}O_8$  (484.64). Source: XI XIAN *Siegesbeckia orientalis* (aerial parts). Ref: 4438.

**4663 Dasycarpamine**

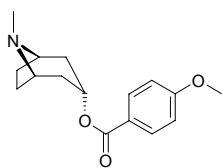
$C_{17}H_{21}NO_4$  (303.36). mp 149°C. Source: BAI XIAN PI *Dictamnus dasycarpus*. Ref: 6.

**4664 Datumetelin**

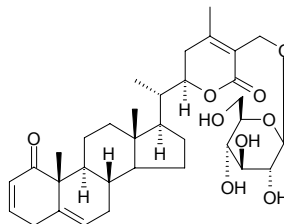
[117259-11-7]  $C_{29}H_{40}O_5$  (468.64). Source: MAN TUO LUO YE *Datura metel*. Ref: 2.

**4665 Datumetine**

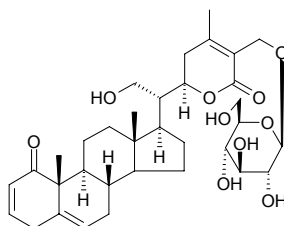
[67078-20-0]  $C_{16}H_{21}NO_3$  (275.35). Source: MAN TUO LUO YE *Datura metel*. Ref: 2.

**4666 Daturametelin A**

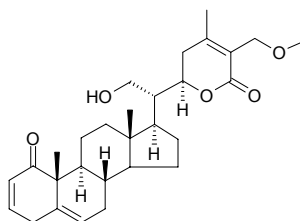
$C_{34}H_{48}O_9$  (600.76). Source: MAN TUO LUO YE *Datura metel*. Ref: 2, 660.

**4667 Daturametelin B**

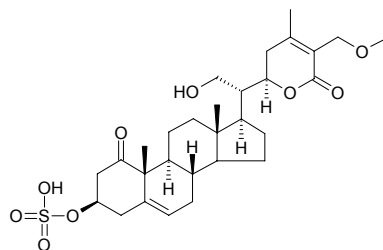
$C_{34}H_{48}O_{10}$  (616.76). Source: MAN TUO LUO YE *Datura metel*. Ref: 2, 660.

**4668 Daturametelin C**

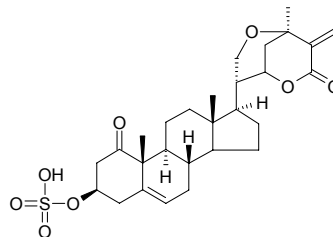
[123297-25-6]  $C_{29}H_{40}O_5$  (468.64). Source: MAN TUO LUO YE *Datura metel*. Ref: 2, 660.

**4669 Daturametelin E**

$C_{29}H_{42}O_9S$  (566.72). Source: MAN TUO LUO YE *Datura metel*. Ref: 2, 660.

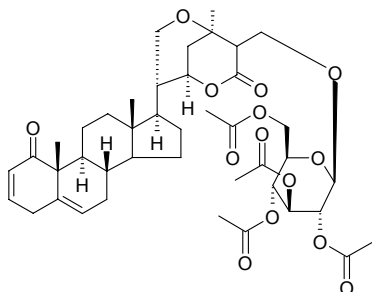
**4670 Daturametelin F**

$C_{28}H_{38}O_8S$  (534.67). Source: MAN TUO LUO YE *Datura metel*. Ref: 2, 660.

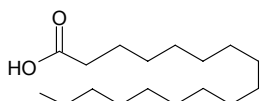


**4671 Daturametelin G-AC**

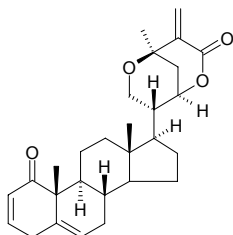
$C_{42}H_{56}O_{14}$  (784.91). Source: MAN TUO LUO YE *Datura metel*. Ref: 2, 660.

**4672 Daturic acid**

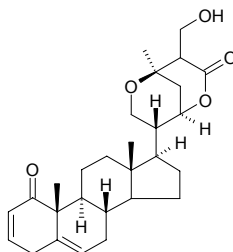
Margaric acid [506-12-7]  $C_{17}H_{34}O_2$  (270.46). mp 60~61°C. Source: DANG SHEN *Codonopsis pilosula*, LU HUI *Aloe vera* [Syn. *Aloe barbadensis*], GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], XI YANG SHEN *Panax quinquefolium*, SHU MI *Panicum miliaceum*. Ref: 2, 6.

**4673 Daturilin**

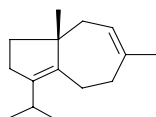
Withametelin [113430-43-6]  $C_{28}H_{36}O_4$  (436.60). Source: MAN TUO LUO YE *Datura metel*. Ref: 2, 660, 1521.

**4674 Daturilinol**

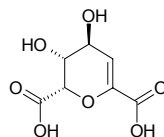
[113706-20-0]  $C_{28}H_{38}O_5$  (454.61). Source: MAN TUO LUO YE *Datura metel*. Ref: 2, 660.

**4675 Daucene**

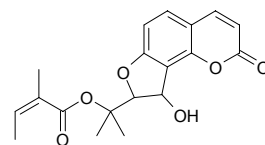
4,8-Daucadiene [16661-00-0]  $C_{15}H_{24}$  (204.36). bp 96°C/4mmHg. Source: NAN HE SHI *Daucus carota*. Ref: 6, 660.

**4676 Daucic acid**

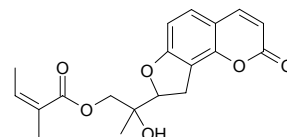
[34098-52-7]  $C_7H_8O_7$  (204.14). Source: HE SHI FENG *Daucus carota*. Ref: 6.

**4677 Daucoidin A**

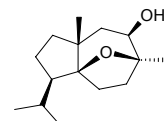
$C_{19}H_{20}O_6$  (344.37). Yellowish glasses,  $[\alpha]_D^{20} = +46^\circ$  (c = 0.30, MeOH). Source: QIAN HU *Angelica decursiva* [Syn. *Peucedanum decursivum*]. Ref: 9.

**4678 Daucoidin B**

$C_{19}H_{20}O_6$  (344.37). Colorless massive crystals, mp 140~141°C,  $[\alpha]_D^{20} = +48.2^\circ$  (c = 0.15,  $CHCl_3$ ). Source: QIAN HU *Angelica decursiva* [Syn. *Peucedanum decursivum*]. Ref: 9.

**4679 Daucol**

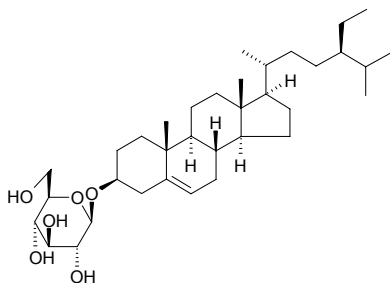
[887-08-1]  $C_{15}H_{26}O_2$  (238.37). mp 113~115°C, bp 124~132°C/2mmHg. Source: HU LUO BO ZI *Daucus carota* var. *sativa*, NAN HE SHI *Daucus carota*, HE SHI FENG *Daucus carota*. Ref: 6, 660.

**4680 Daucosterol**

$\beta$ -Daucosterol [474-58-8]  $C_{35}H_{60}O_6$  (576.86). White powder, mp 295°C. Pharm: Platelet aggregation inhibitor (2~5mg/mL collagen-induced,  $IC_{50} = (114 \pm 3)\mu\text{mol/L}$ , control ASA,  $IC_{50} = (420 \pm 3)\mu\text{mol/L}$ ; 1~4 $\mu\text{mol/L}$  epinephrine-induced with 0.8~1.0mg/mL collagen,  $IC_{50} = (53.2 \pm 2.3)\mu\text{mol/L}$ , ASA,  $IC_{50} = (53.0 \pm 4.5)\mu\text{mol/L}$ ; 10~40 $\mu\text{mol/L}$  Sodium arachidonate-induced with 0.8~1.0mg/mL collagen,  $IC_{50} = (66.5 \pm 4.0)\mu\text{mol/L}$ , ASA,  $IC_{50} = (66.0 \pm 2.1)\mu\text{mol/L}$ ; 1~5 $\mu\text{mol/L}$  PGH<sub>2</sub>/TXA<sub>2</sub> receptor agonist U46619-induced with 0.8~1.0mg/mL collagen,  $IC_{50} = (56.1 \pm 4.3)\mu\text{mol/L}$ , ASA,  $IC_{50} = (340 \pm 12)\mu\text{mol/L}$ )<sup>[4994]</sup>; cytotoxic (P<sub>388</sub>, marginal activity); cytotoxic inactive (*in vitro*, LNCaP,  $IC_{50} > 100\mu\text{mol/L}$ )<sup>[4607]</sup>. Source: BAI MU TONG GEN *Akebia trifoliata* var. *australis*, BAI TOU WENG *Pulsatilla chinensis*, BAN XIA *Pinellia ternata*, BEI MA DOU LING GEN *Aristolochia contorta*, BU GU ZHI *Psoralea corylifolia*, CAO CONG RONG *Boschniakia rossica*, CHI SHAO *Paeonia lactiflora* wild, CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*], CHUAN XU DUAN *Dipsacus asperoides*, CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*], DAN SHEN *Salvia*

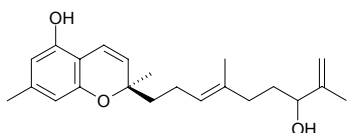


*multiorrhiza*, DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield = 0.0027%dw)<sup>[4767]</sup>, DONG BEI CI REN SHEN *Oplopanax elatus*, FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*], FANG XIANG JIANG *Zingiber aromaticum* (rhizome), GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingsensis*], GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], HAI JIN BI XIE *Dioscorea spongiosa* (rhizome: yield = 0.00012%<sup>[4692]</sup>), HUA DONG LAN CI TOU *Echinops grijsii*, HUANG HUA BAI JIANG *Patrinia scabiosaefolia*, HUO XIANG *Agastache rugosus*, HUO YAN HUA *Phlogacanthus curviflorus* (root: yield = 0.0385%dw)<sup>[4799]</sup>, JIN QUE GEN *Caragana sinica*, JU YUAN *Citrus medica*, LANG DANG ZI *Hyoscyamus niger* (seed: yield = 0.0004%dw)<sup>[4607]</sup>, LIU QIU SHE GEN CAO *Ophiorrhiza liukuensis* (whole herb), MA TI YE *Caltha palustris*, MAO LIAN HAO *Artemisia vestita*, MU TONG *Akebia quinata*, MU TONG GEN *Akebia quinata*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], ROU CONG RONG *Cistanche deserticola*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], SAN YE MU TONG GEN *Akebia trifoliata*, SHAN FAN GEN *Symplocos caudata*, SHENG DI HONG JING TIAN *Rhodiola sacra*, SHI LIU ZHONG ZI *Punica granatum* (seed: yield = 0.0051%<sup>[4792]</sup>), SI CHI SI LENG CAO *Schnabelia tetradonta* (aerial parts: yield = 0.00058%dw)<sup>[4665]</sup>, SUAN ZAO REN *Ziziphus jujuba* var. *spinosa*, TIAN MA *Gastrodia elata*, TUN XING GUO *Pygeum topengii*, WU GENG WU JIA PI *Acanthopanax sessiliflorus* (fruit), XIA KU CAO *Prunella vulgaris*, XIAN GENG XI XIAN *Siegesbeckia orientalis* var. *pubescens* [Syn. *Siegesbeckia pubescens*], XIANG TANG SONG CAO *Thalictrum foetidum*, XIAO QIAO MU ZI JIN NIU *Ardisia arborescens* (whole herb)<sup>[4769]</sup>, XIN JIANG LAN CI TOU *Echinops ritro*, YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*], YAO YONG PU GONG YING *Taraxacum officinale*, YI ZHU QIAN MA *Urtica dioica*, ZHONG GUO XUAN FU HUA *Inula britannica* var. *chinensis*, occurs in many plants. Ref: 2, 440, 447, 450, 454, 455, 471, 474, 502, 556, 580, 582, 585, 594, 596, 614, 622, 660, 1521, 2508, 2535, 4449, 4527, 4607, 4665, 4692, 4767, 4769, 4792, 4799, 4994, 5501.



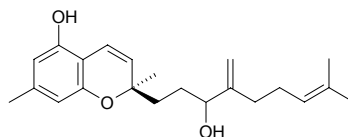
#### 4681 Daurichromene A

2*R*-(7'-Hydroxy-4',8'-dimethyl-3'*E*,8'-nonadienyl)-5-hydroxy-2,7-dimethyl-2*H*-chromene C<sub>22</sub>H<sub>30</sub>O<sub>3</sub> (342.48). Light yellow oil, [α]<sub>D</sub><sup>26</sup> = -30.4° (c = 0.20, CH<sub>3</sub>OH). **Pharm:** Antihistamine (inhibits histamine release, rat peritoneal mast cells, compound 48/80-induced)<sup>[4755]</sup>. **Source:** MAN SHAN HONG *Rhododendron dauricum* (twig and leaf: yield = 0.00091%) **Ref:** 4755.



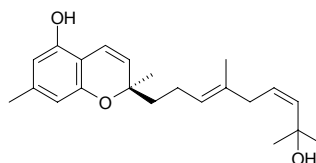
#### 4682 Daurichromene B

2*R*-(3'-Hydroxy-8'-methyl-4'-methyliden-7'-nonaenyl)-5-hydroxy-2,7-dimethyl-2*H*-chromene C<sub>22</sub>H<sub>30</sub>O<sub>3</sub> (342.48). Light yellow oil, [α]<sub>D</sub><sup>26</sup> = -27.7° (c = 0.13, CH<sub>3</sub>OH). **Pharm:** Antihistamine (inhibits histamine release, rat peritoneal mast cells, compound 48/80-induced)<sup>[4755]</sup>. **Source:** MAN SHAN HONG *Rhododendron dauricum* (twig and leaf: yield = 0.0001%) **Ref:** 4755.



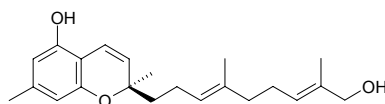
#### 4683 Daurichromene C

2*R*-(8'-Hydroxy-4',8'-dimethyl-3'*E*,6'*Z*-nonadienyl)-5-hydroxy-2,7-dimethyl-2*H*-chromene C<sub>22</sub>H<sub>30</sub>O<sub>3</sub> (342.48). Light yellow oil, [α]<sub>D</sub><sup>26</sup> = -32.0° (c = 0.10, CH<sub>3</sub>OH). **Pharm:** Antihistamine (inhibits histamine release, rat peritoneal mast cells, compound 48/80-induced)<sup>[4755]</sup>. **Source:** MAN SHAN HONG *Rhododendron dauricum* (twig and leaf: yield = 0.0002%) **Ref:** 4755.



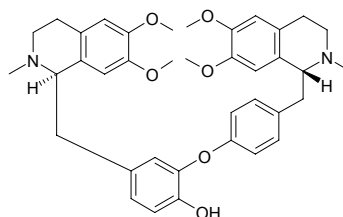
#### 4684 Daurichromene D

2*R*-(9'-Hydroxy-4',8'-dimethyl-3'*E*,7'*E*-nonadienyl)-5-hydroxy-2,7-dimethyl-2*H*-chromene C<sub>22</sub>H<sub>30</sub>O<sub>3</sub> (342.48). Light yellow oil, [α]<sub>D</sub><sup>26</sup> = -26.0° (c = 0.10, CH<sub>3</sub>OH). **Pharm:** Antihistamine (inhibits histamine release, rat peritoneal mast cells, compound 48/80-induced)<sup>[4755]</sup>. **Source:** MAN SHAN HONG *Rhododendron dauricum* (twig and leaf: yield = 0.00017%) **Ref:** 4755.



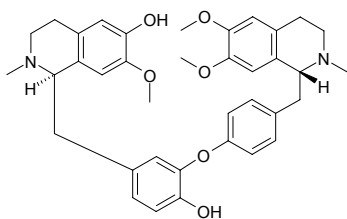
#### 4685 Dauricine

[524-17-4] C<sub>38</sub>H<sub>44</sub>N<sub>2</sub>O<sub>6</sub> (624.78). mp 115°C. **Pharm:** Analgesic; antiarrhythmic; anti-inflammatory; antihypertensive; platelet aggregation inhibitor (caused by ADP, adrenalin, collagen and arachidonic acid, *in vitro* and *in vivo*); inhibits small intestinal contraction (rbt, *in vitro*) and reduces alvine tension (*in vivo*); antihypercholesterolemic (reduces the level of cholesterol in serum); LD (cat, iv) = 30mg/kg; LD<sub>50</sub> (mus, ip) = 6mg/kg. **Source:** BIAN FU GE GEN *Menispermum dauricum*, MEI GUO BIAN FU GE *Menispermum canadense*. **Ref:** 4, 6, 658, 5501.

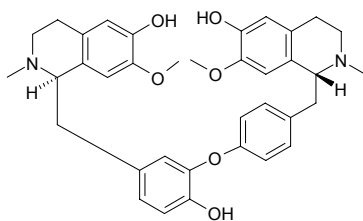


**4686 Dauricinoline**

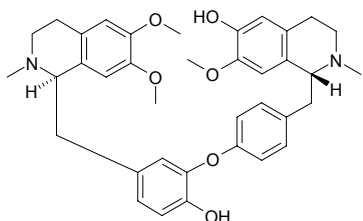
[30984-80-6] C<sub>37</sub>H<sub>42</sub>N<sub>2</sub>O<sub>6</sub> (610.76). Source: BIAN FU GE GEN *Menispermum dauricum*. Ref: 6.

**4687 Dauricoline**

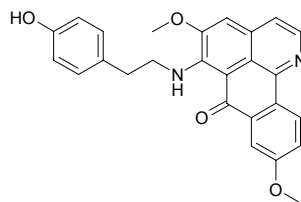
[29550-42-3] C<sub>36</sub>H<sub>40</sub>N<sub>2</sub>O<sub>6</sub> (596.73). Source: BIAN FU GE GEN *Menispermum dauricum*. Ref: 6.

**4688 Daurinoline**

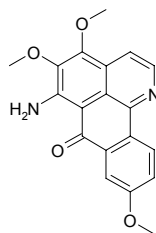
[2831-75-6] C<sub>37</sub>H<sub>42</sub>N<sub>2</sub>O<sub>6</sub> (610.76). Source: BIAN FU GE GEN *Menispermum dauricum*. Ref: 6.

**4689 Daurioxoisoporphine A**

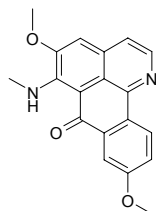
4-Demethoxytyraminoporphine C<sub>26</sub>H<sub>22</sub>N<sub>2</sub>O<sub>4</sub> (426.48). Yellow crystals (CHCl<sub>3</sub>), mp 234~235°C. Pharm: Cytotoxic (*in vitro*, A549, IC<sub>50</sub> = 8.8 μmol/L, HL-60, IC<sub>50</sub> > 50 μmol/L, MCF7, IC<sub>50</sub> = 3 μmol/L, P<sub>388</sub>, IC<sub>50</sub> = 30.5 μmol/L; control VP-16: A549, IC<sub>50</sub> = 0.5 μmol/L, HL-60, IC<sub>50</sub> = 5.4 μmol/L, MCF7, IC<sub>50</sub> = 12.33 μmol/L, P<sub>388</sub>, IC<sub>50</sub> = 0.1 μmol/L). Source: BIAN FU GE GEN *Menispermum dauricum*. Ref: 3071.

**4690 Daurioxoisoporphine B**

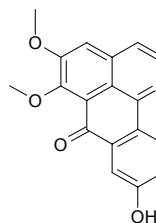
6-Amino-4,5,9-trimethoxyoxoisoporphine C<sub>19</sub>H<sub>16</sub>N<sub>2</sub>O<sub>4</sub> (336.35). Yellow amorphous powder. Pharm: Cytotoxic (*in vitro*, A549, IC<sub>50</sub> > 50 μmol/L, HL-60, IC<sub>50</sub> > 50 μmol/L, MCF7, IC<sub>50</sub> = 6.2 μmol/L, P<sub>388</sub>, IC<sub>50</sub> = 9.6 μmol/L; control VP-16: A549, IC<sub>50</sub> = 0.5 μmol/L, HL-60, IC<sub>50</sub> = 5.4 μmol/L, MCF7, IC<sub>50</sub> = 12.33 μmol/L, P<sub>388</sub>, IC<sub>50</sub> = 0.1 μmol/L). Source: BIAN FU GE GEN *Menispermum dauricum*. Ref: 3071.

**4691 Daurioxoisoporphine C**

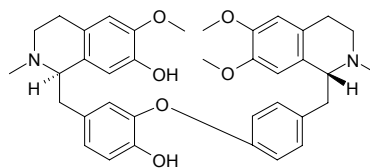
6-Methylamino-5,9-dimethoxyoxoisoporphine C<sub>19</sub>H<sub>16</sub>N<sub>2</sub>O<sub>3</sub> (320.35). Yellow amorphous powder. Source: BIAN FU GE GEN *Menispermum dauricum*. Ref: 3071.

**4692 Daurioxoisoporphine D**

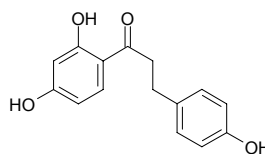
5,6-Dimethoxyl-9-hydroxyoxoisoporphine C<sub>18</sub>H<sub>13</sub>NO<sub>4</sub> (307.31). Yellow amorphous powder. Source: BIAN FU GE GEN *Menispermum dauricum*. Ref: 3071.

**4693 Daurisoline**

[70553-76-3] C<sub>37</sub>H<sub>42</sub>N<sub>2</sub>O<sub>6</sub> (610.76). Cream powder (cyclohexane), mp 96~102°C, [α]<sub>D</sub><sup>20</sup> = -129° (c = 0.65, methanol). Pharm: Muscle relaxant; LD<sub>50</sub> (mus, iv) = (1.25±0.16)mg/kg. Source: BIAN FU GE GEN *Menispermum dauricum* (rhizome: mean content of 8 origins = 0.594%<sup>[5508]</sup>) Ref: 661, 5501, 5508.

**4694 Davidigenin**

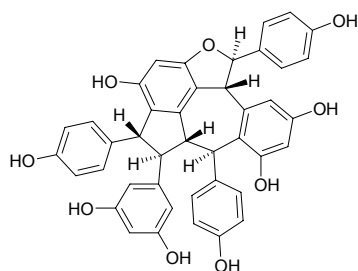
C<sub>15</sub>H<sub>14</sub>O<sub>4</sub> (258.28). Source: BO TE LAN DA JI *Euphorbia portlandica* (whole herb). Ref: 5019.



**4695 Davidiol A**

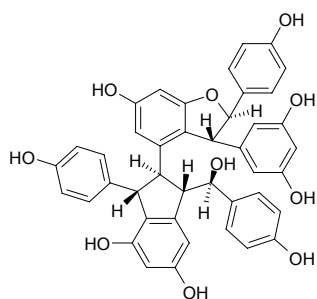
$C_{42}H_{32}O_9$  (680.72). Colorless powder,  $[\alpha]_D^{29} = -272^\circ$  ( $c = 0.18$ , MeOH).

Source: BAI CI HUA GEN *Sophora viciifolia*. Ref: 3935.

**4696 Davidiol B**

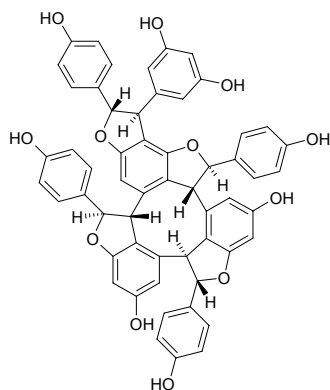
$C_{42}H_{34}O_{10}$  (698.73). Brown solid,  $[\alpha]_D^{29} = -82^\circ$  ( $c = 0.04$ , MeOH). Source:

BAI CI HUA GEN *Sophora viciifolia*. Ref: 3935.

**4697 Davidiol C**

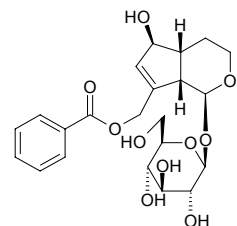
$C_{56}H_{40}O_{12}$  (904.94). Brown powder,  $[\alpha]_D^{29} = -124^\circ$  ( $c = 0.11$ , MeOH).

Source: BAI CI HUA GEN *Sophora viciifolia*. Ref: 3935.

**4698 Davisioside**

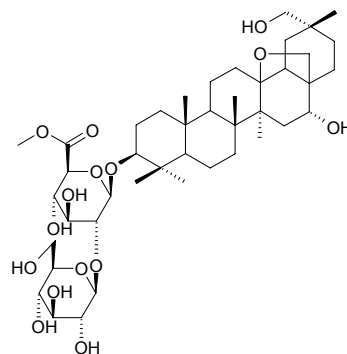
$C_{22}H_{28}O_{10}$  (452.46). White amorphous powder,  $[\alpha]_D = -69^\circ$  ( $c = 0.48$ ,

MeOH). Source: *Globularia davisiana* (aerial parts). Ref: 4194.

**4699 Davuricoside D**

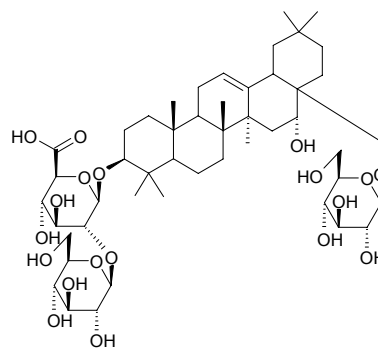
$3\beta,16\alpha,29$ -Trihydroxy-13,28-epoxy-oleanane-3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)-(6-methyl ester)- $\beta$ -*D*-glucuronopyranoside  $C_{43}H_{70}O_{15}$  (827.03).

White amorphous powder, mp 184~186°C (MeOH),  $[\alpha]_D^{20} = -16.00^\circ$  ( $c = 0.01$ , pyridine). Source: HUANG LIAN HUA *Lysimachia davurica* (whole herb). Ref: 4834.

**4700 Davuricoside J**

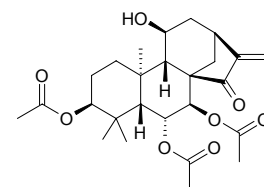
$3\beta,16\alpha,28$ -Trihydroxy-olean-12-en-3-*O*-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucuronopyranosyl]-28-*O*- $\beta$ -*D*-glucuronopyranoside  $C_{48}H_{78}O_{19}$  (959.15).

White amorphous powder, mp 229~232°C (MeOH:H<sub>2</sub>O = 9:1),  $[\alpha]_D^{20} = -20.79^\circ$  ( $c = 0.04$ , pyridine). Source: HUANG LIAN HUA *Lysimachia davurica* (whole herb). Ref: 4834.

**4701 Dawoensin A**

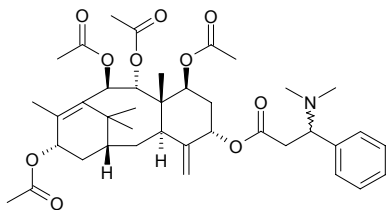
$C_{26}H_{36}O_8$  (476.57). mp 240~242°C,  $[\alpha]_D^{26} = -34.3^\circ$  ( $c = 1.40$ , MeOH);  $[\alpha]_D^{25.6} = -37.8^\circ$  ( $c = 0.332$ , MeOH). Pharm: Cytotoxic (*in vitro*, BGC823

hmn tumor cells,  $IC_{50} = 3.54\mu\text{g/mL}$ , control VCR,  $IC_{50} = 0.066\mu\text{g/mL}$ )<sup>[4760]</sup>, cytotoxic (hmn tumor K562 cells,  $IC_{50} = 2.0\mu\text{g/mL}$ , control *cis*-Platin  $IC_{50} = 1.1\mu\text{g/mL}$ )<sup>[4955]</sup>. Source: BAO YE XIANG CHA CAI *Isodon melissoides* (aerial parts: yield = 0.00031%dw), DAO FU XIANG CHA CAI *Isodon dawoensis*, DONG LING CAO *Rabdosia rubescens* (leaf). Ref: 4067, 4299, 4760, 4955.

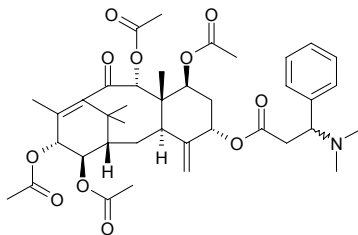


**4702 2'-Deacetoxyaustrospicatine**

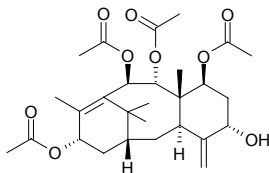
[119777-80-9] C<sub>39</sub>H<sub>53</sub>NO<sub>11</sub> (695.86). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*, XI MA LA YA HONG DOU SHAN *Taxus wallichiana*. Ref: 662.

**4703 2'-Deacetoxyaustrotaxine**

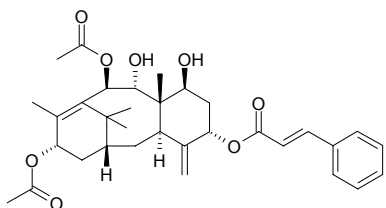
[119777-74-1] C<sub>39</sub>H<sub>51</sub>NO<sub>11</sub> (709.84). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.

**4704 2-Deacetoxy-5-decinnamoyl taxinine J**

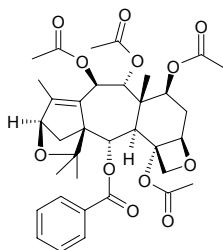
C<sub>28</sub>H<sub>40</sub>O<sub>9</sub> (520.63). White massive crystals, mp 178–180°C, [α]<sub>D</sub><sup>12</sup> = +112.93° (c = 0.058, chloroform). Source: JIANG GUO ZI SHAN *Taxus baccata*, XI MA LA YA HONG DOU SHAN *Taxus wallichiana*, YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 296, 662.

**4705 2-Deacetoxy-7,9-dideacetyltaxinine J**

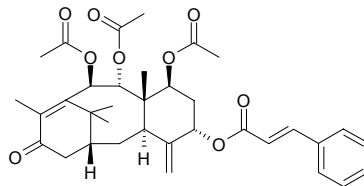
C<sub>33</sub>H<sub>42</sub>O<sub>8</sub> (566.70). Source: HONG DOU SHAN *Taxus chinensis*, YUN NAN HONG DOU SHAN *Taxus yunnanensis* (aerial parts)<sup>[4611]</sup>. Ref: 662, 4611.

**4706 13-Deacetoxy-13,15-epoxy-11(15→1)-abeo-13-epi-baccatin VI**

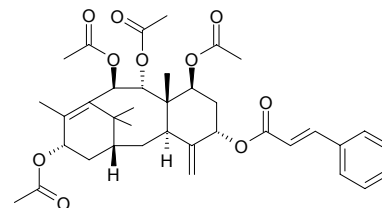
C<sub>35</sub>H<sub>42</sub>O<sub>12</sub> (654.72). [α]<sub>D</sub> = +23.9° (CHCl<sub>3</sub>), mp 150°C. Source: ZA JIAO JIE ZHI HONG DOU SHAN *Taxus x media*. Ref: 662.

**4707 2-Deacetoxytaxinine B**

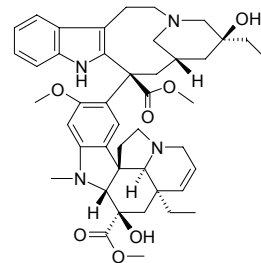
C<sub>35</sub>H<sub>42</sub>O<sub>9</sub> (606.72). Source: XI MA LA YA HONG DOU SHAN *Taxus wallichiana*. Ref: 662.

**4708 2-Deacetoxytaxinine J**

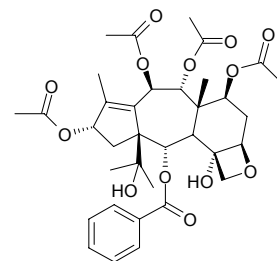
[119347-14-7] C<sub>37</sub>H<sub>46</sub>O<sub>10</sub> (650.77). Colorless crystals, mp 171–172°C (ethanol), [α]<sub>D</sub><sup>14</sup> = +50° (c = 1.2, acetone). Pharm: Cytotoxic (P<sub>388</sub> *in vitro*, IC<sub>50</sub> = 15.2 μg/mL, L<sub>1210</sub> *in vitro*, IC<sub>50</sub> = 4.9 μg/mL, 10 μg/mL InRt = 79.5%, KB *in vitro*, 10 μg/mL InRt = 27.6%). Source: MEI LI HONG DOU SHAN *Taxus mairei*, YUN NAN HONG DOU SHAN *Taxus yunnanensis* (aerial parts)<sup>[3079, 4611]</sup>, ZI SHAN *Taxus cuspidata*. Ref: 662, 900, 3079, 4611.

**4709 Deacetoxyvinblastine**

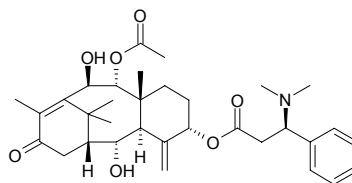
C<sub>44</sub>H<sub>56</sub>N<sub>4</sub>O<sub>7</sub> (752.96). Source: CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*]. Ref: 2.

**4710 4-Deacetyl-11(15→1)-abeo-baccatin VI**

C<sub>35</sub>H<sub>44</sub>O<sub>13</sub> (672.73). mp 222°C, [α]<sub>D</sub> = -73.1° (CHCl<sub>3</sub>). Source: ZA JIAO JIE ZHI HONG DOU SHAN *Taxus x media*. Ref: 662.

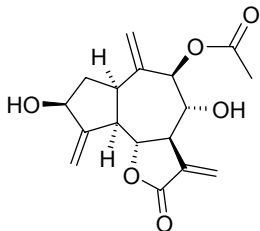
**4711 2-Deacetyl-9-acetoxytaxinine B**

C<sub>33</sub>H<sub>45</sub>NO<sub>7</sub> (567.73). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

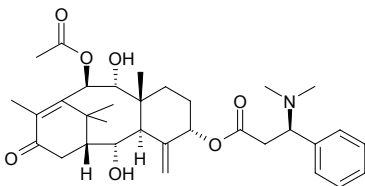


**4712 3-O-Deacetyl-9-O-acetylsalograviolide A**

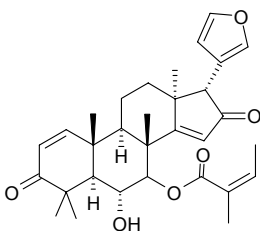
$C_{17}H_{20}O_6$  (320.35). Colorless solid,  $[\alpha]_D^{22} = +29.80^\circ$  ( $c = 0.0436$ , MeOH). **Pharm:** Antifungal (*Aspergillus niger*, MIC = 6.25  $\mu\text{g/mL}$ ; *Aspergillus ochraceus*, MIC = 3.13  $\mu\text{g/mL}$ ; *Penicillium ochrocloron*, MIC = 25  $\mu\text{g/mL}$ ; *Cladosporium cladosporioides*, MIC = 3.13  $\mu\text{g/mL}$ ; *Fusarium tricinctum*, MIC = 12.5  $\mu\text{g/mL}$ ; *Phomopsis helianthi*, MIC = 1.56  $\mu\text{g/mL}$ , *Trichoderma viride*, inactive). **Source:** NI GU LA SHI CHE JU *Centaurea nicolai*. **Ref:** 2361.

**4713 2-Deacetyl-10-acetyltaxine B**

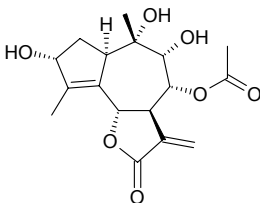
$C_{33}H_{45}NO_7$  (567.73). **Source:** JIANG GUO ZI SHAN *Taxus baccata*. **Ref:** 662.

**4714 7-Deacetyl-7-angeloyl-6 $\alpha$ -hydroxyazadiradione**

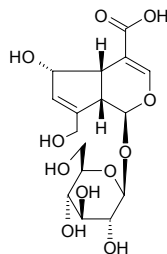
$C_{31}H_{38}O_6$  (506.64). Pale yellow solid, mp 91~94°C,  $[\alpha]_D = +69^\circ$  ( $c = 0.658$ ,  $\text{CHCl}_3$ ). **Source:** *Quivisia papinae* (seed). **Ref:** 3759.

**4715 9-O-Deacetylanthemolide D**

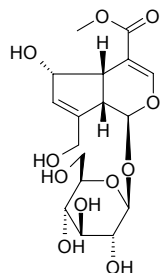
$C_{17}H_{22}O_7$  (338.36). Pale yellow oil. **Source:** *Anthemis carpatica* (aerial parts). **Ref:** 3974.

**4716 Deacetyl asperulosidic acid**

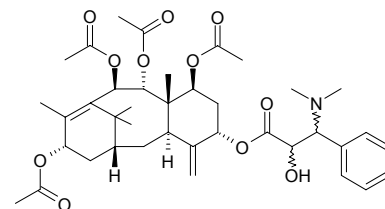
Citroside A [ $14259-55-3$ ]  $C_{16}H_{22}O_{11}$  (390.35). Colorless acicular crystals, mp 146°C,  $[\alpha]_D^{34} = +11.1^\circ$  ( $c = 0.36$ , water). **Pharm:** TNF- $\alpha$  release inhibitor (cultured mouse peritoneal macrophages,  $IC_{50} = 1 \mu\text{g/mL}$ )<sup>[1605]</sup>; Laxative. **Source:** CHANG WEI CU YE MU *Lasianthus acuminatissimus* (root: yield = 0.0046% dw)<sup>[1605]</sup>, HAI BA JI *Morinda citrifolia* (fruit), JIAO RANG MU *Daphniphyllum macropodum*, XIE JI CU YE MU *Lasianthus wallichii* (leaf), ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. **Ref:** 661, 1605, 4238, 4542.

**4717 Deacetyl asperulosidic acid methyl ester**

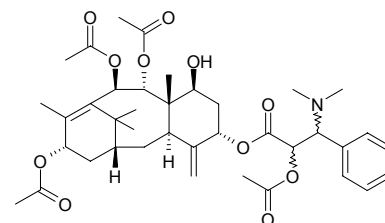
Methyldeacetylasperulosidate  $C_{17}H_{24}O_{11}$  (404.37). **Pharm:** Laxative (mus,  $ED_{50} = 0.53 \text{g/kg}$ ). **Source:** SHUI ZHI *Gardenia jasminoides* var. *grandiflora*, ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. **Ref:** 2, 6, 626, 658.

**4718 2'-Deacetylaustrospicatine**

[119777-78-5]  $C_{39}H_{53}NO_{11}$  (711.86). **Source:** AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. **Ref:** 662.

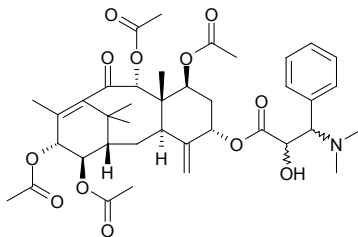
**4719 7-Deacetylaustrospicatine**

[119777-79-6]  $C_{39}H_{53}NO_{11}$  (711.86). **Source:** AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. **Ref:** 662.

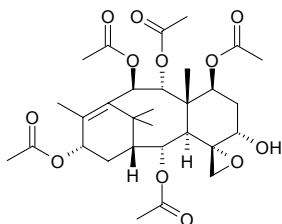


**4720 2'-Deacetylaustrotaxine**

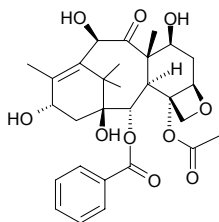
[119777-74-1] C<sub>39</sub>H<sub>51</sub>NO<sub>12</sub> (725.84). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.

**4721 5 $\alpha$ -Deacetylbaaccatin I**

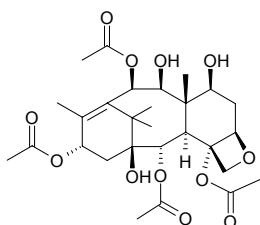
[30244-36-1] C<sub>30</sub>H<sub>42</sub>O<sub>12</sub> (594.66). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**4722 10-Deacetylbaaccatin III**

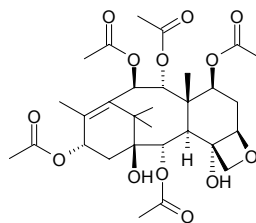
C<sub>29</sub>H<sub>36</sub>O<sub>10</sub> (544.62). Pharm: Cytotoxic (*in vitro*, 30 μg/mL: A498, InRt = 27.0%; NCI-H226, InRt = 5.7%; A549, InRt = 12.2%; PC3, InRt = 1.6%; control Taxol, 30 μg/mL: A498, InRt = 98.2%; NCI-H226, InRt = 71.2%; A549, InRt = 79.7%; PC3, InRt = 91.7%)<sup>[4800]</sup>. Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*, JIANG GUO ZI SHAN *Taxus baccata*, SU MEN DA LA HONG DOU SHAN *Taxus sumatrana* (twig and leaf: yield = 0.0082% dw<sup>[4666]</sup>), YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 316, 563, 662, 4666, 4800.

**4723 7,9-Deacetylbaaccatin IV**

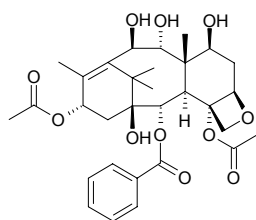
C<sub>28</sub>H<sub>40</sub>O<sub>12</sub> (568.62). Source: JIANG GUO ZI SHAN *Taxus baccata*, DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**4724 4-Deacetylbaaccatin IV**

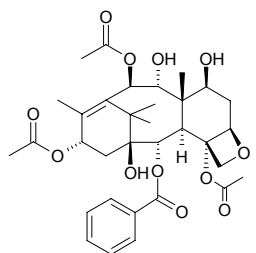
C<sub>30</sub>H<sub>42</sub>O<sub>13</sub> (610.66). Source: ZA JIAO JIE ZHI HONG DOU SHAN *Taxus x media*. Ref: 662.

**4725 7,9,10-Deacetylbaaccatin VI**

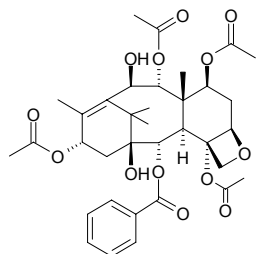
C<sub>31</sub>H<sub>40</sub>O<sub>11</sub> (588.66). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis*. Ref: 662.

**4726 7,9-Deacetylbaaccatin VI**

9-Dihydro-13-acetylbaaccatin III C<sub>33</sub>H<sub>42</sub>O<sub>12</sub> (630.70). mp 221°C. Pharm: NO production inhibitor (IC<sub>50</sub> = 78.8 μmol/L, control *L*-NMMA, IC<sub>50</sub> = 28.5 μmol/L)<sup>[5407]</sup>. Source: JIA NA DA HONG DOU SHAN *Taxus Canadensis*, YUN NAN HONG DOU SHAN *Taxus yunnanensis* (wood). Ref: 662, 5407.

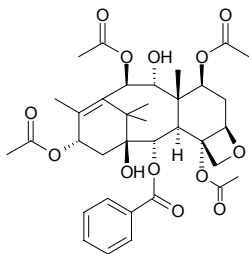
**4727 10-Deacetylbaaccatin VI**

C<sub>35</sub>H<sub>44</sub>O<sub>13</sub> (672.73). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 662.

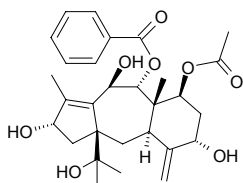


**4728 9-Deacetyl-9-baccatin VI**

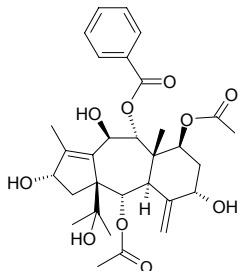
$C_{35}H_{44}O_{13}$  (672.73). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 662.

**4729 9-Deacetyl-9-benzoyl-10-debenzoylbrevifoliol**

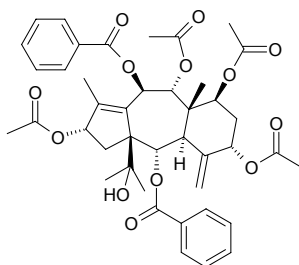
$C_{29}H_{38}O_8$  (514.62). mp 152°C,  $[\alpha]_D = +18^\circ$  (CHCl<sub>3</sub>). Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**4730 9-Deacetyl-9-benzoyl-10-debenzoyltaxchinin A**

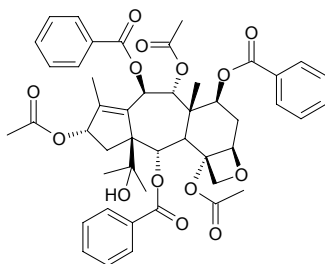
$C_{31}H_{40}O_{10}$  (572.66).  $[\alpha]_D = +19.4^\circ$  (MeOH). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**4731 2-Deacetyl-2α-benzoyl-5,13-diacetyltaxchinin A**

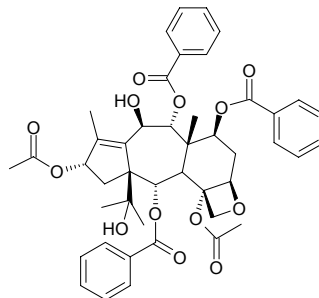
$C_{42}H_{48}O_{13}$  (760.84). mp 200–203°C,  $[\alpha]_D = -21.5^\circ$ . Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**4732 7-Deacetyl-7-benzoyltaxayuntin C**

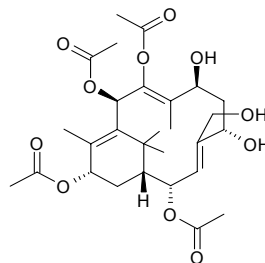
$C_{47}H_{50}O_{14}$  (838.91). mp 234–236°C. Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**4733 7-Deacetyl-7-benzoyltaxchinin I**

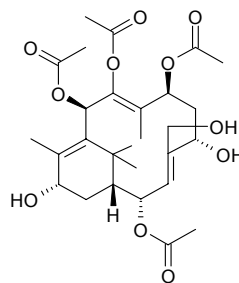
$C_{45}H_{48}O_{13}$  (796.88). mp 255°C. Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**4734 7-Deacetylcanadensene**

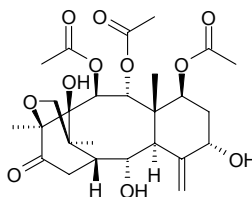
$C_{28}H_{40}O_{11}$  (552.62). White amorphous solid, mp 95–96°C,  $[\alpha]_D^{25} = +5.33^\circ$  ( $c = 0.003$ , CHCl<sub>3</sub>). Source: MEI LI HONG DOU SHAN *Taxus mairei*. Ref: 662, 1914.

**4735 13-Deacetylcanadensene**

$C_{28}H_{40}O_{11}$  (552.62). White amorphous solid, mp 98–99°C,  $[\alpha]_D^{24} = +4.52^\circ$  ( $c = 0.003$ , CHCl<sub>3</sub>). Source: MEI LI HONG DOU SHAN *Taxus mairei*. Ref: 662, 1914.

**4736 2α-Deacetyl-5α-decinnamoyltaxagifine**

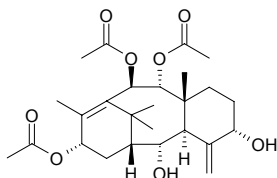
$C_{26}H_{36}O_{11}$  (524.57). Source: HONG DOU SHAN *Taxus chinensis*, SU MEN DA LA HONG DOU SHAN *Taxus sumatrana* (twig and leaf)<sup>[4800]</sup>. Ref: 662, 4800.



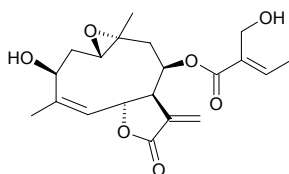
**4737 2-Deacetyldecinnamoyltaxinine E**

Deacetyldecinnamoyltaxinine E  $C_{26}H_{38}O_8$  (478.59).  $[\alpha]_D^{25} = +72^\circ$  ( $CHCl_3$ ).

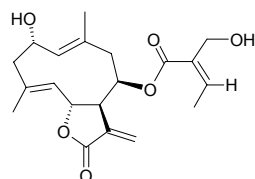
Source: JIANG GUO ZI SHAN *Taxus baccata*, HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**4738 3-Deacetylupalinin A**

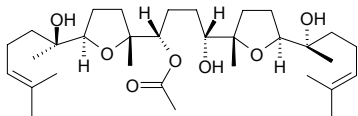
$C_{20}H_{26}O_7$  (378.43). Source: CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.0023%dw). Ref: 4762.

**4739 Deacetylupaserrin**

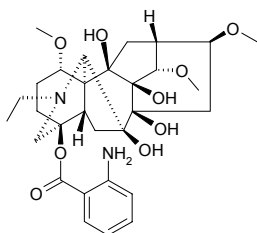
Desacetylupaserrin [38456-39-2]  $C_{20}H_{26}O_6$  (362.43).  $[\alpha]_D^{25} = +75.0^\circ$  ( $c = 0.92$ , methanol). Pharm: Antineoplastic ( $P_{388}$ , 18mg/kg); cytotoxic (KB,  $ED_{50} = 0.29\mu g/mL$ ); larvicide (insect larva growth inhibitor). Source: AI XIANG RI KUI *Helianthus pumilus*, BAN JU CHI ZHUANG ZE LAN *Eupatorium semiserratum*, WEI GAN JU ZE LAN *Eupatorium mikanioides*, *Helianthus* sp. Ref: 658, 661.

**4740 14-Deacetylerylene**

$C_{32}H_{56}O_7$  (552.80). Pharm: Cytotoxic (KB cells,  $IC_{50} = 0.52\mu g/mL$ )<sup>[4556]</sup>. Source: *Eurycoma* sp. Ref: 4556.

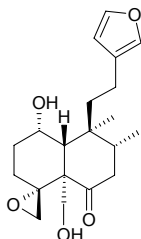
**4741 N-Deacetylfinaconitine**

[82872-81-9]  $C_{30}H_{42}N_2O_9$  (574.68). Pharm: Analgesic; toxin. Source: GAN WAN WU TOU *Aconitum finetianum*. Ref: 658.

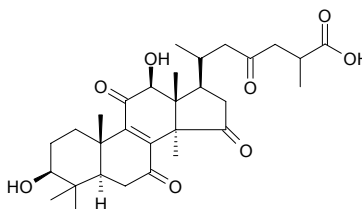
**4742 Deacetylfructolone**

$C_{20}H_{28}O_5$  (348.44). Colorless oil,  $[\alpha]_D^{25} = +5.4^\circ$  ( $c = 0.22$ ,  $CHCl_3$ ).

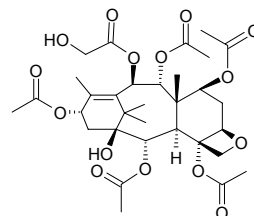
Pharm: Insect antifeedant (fifth instar larvae of *Spodoptera littoralis*, dual-choice feeding assays, dose =  $10\mu g/cm^2$ ,  $FR_{50} = 1.03\pm 0.07$ ). Source: GUAN CONG XIANG KE KE *Teucrium fruticans*. Ref: 3761.

**4743 12-Deacetylganoderic acid H**

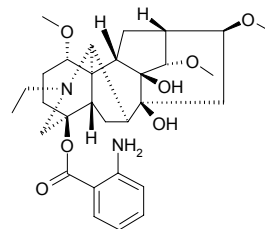
$C_{30}H_{44}O_8$  (530.66). Source: LING ZHI *Ganoderma lucidum* (dried sporocarp: yield = 0.0021%). Ref: 4603.

**4744 10-Deacetyl-10-glycolylbaccatin IV**

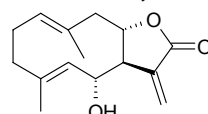
$C_{32}H_{44}O_{15}$  (668.70). Gum. Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle leaf). Ref: 3958.

**4745 N-Deacetylappaconitine**

Puberanidine [11033-64-0]  $C_{30}H_{42}N_2O_7$  (542.68). Pharm: Analgesic; toxin. Source: GAN WAN WU TOU *Aconitum finetianum*. Ref: 658.

**4746 Deacetylarenobiolide**

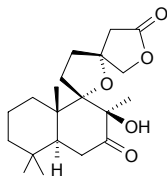
$C_{15}H_{20}O_3$  (248.32). Pharm: Anti-inflammatory (RAW264.7 cells, LPS-induced: NF- $\kappa$ B inhibitor,  $IC_{50} = (7.17\pm 0.16)\mu mol/L$ , control PTN,  $IC_{50} = (3.42\pm 0.08)\mu mol/L$ ; NO production inhibitor,  $IC_{50} = (5.76\pm 0.28)\mu mol/L$ , PTN,  $IC_{50} = (2.41\pm 0.06)\mu mol/L$ , AG,  $IC_{50} = (34.18\pm 0.98)\mu mol/L$ ; TNF- $\alpha$  production inhibitor,  $IC_{50} = (27.76\pm 1.76)\mu mol/L$ , PTN,  $IC_{50} = (2.68\pm 0.11)\mu mol/L$ ). Source: LIN DI HAO *Artemisia sylvatica* (aerial parts). Ref: 3837.



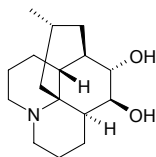


**4747 8-Deacetylpepersin A**

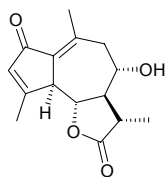
$C_{20}H_{30}O_5$  (350.46). White powder. Source: BO SI YI MU CAO *Leonurus persicus*. Ref: 2499.

**4748 Deacetyllycochlorine**

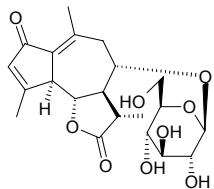
$C_{16}H_{27}NO_2$  (265.40). Source: QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*]. Ref: 4388.

**4749 Deacetylmatricarin**

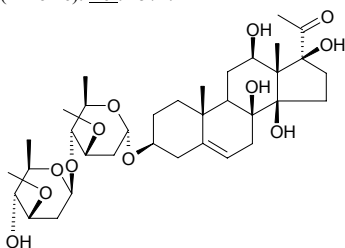
$C_{15}H_{18}O_4$  (262.31). mp 123~125°C; 143~146°C. Source: DAO LUAN YE PU GONG YING GEN *Taraxacum obovatum*, YANG SHI CAO *Achillea millefolium*, YI KUA *Artemisia myriantha* (aerial parts), YI ZHI HAO *Achillea alpina* [Syn. *Achillea sibirica*]. Ref: 6, 4618, 5357.

**4750 Deacetylmatricarin 8-O-β-glucopyronoside**

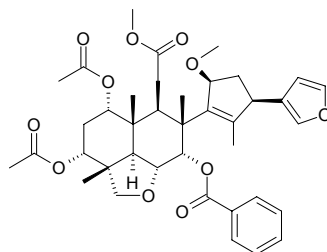
$C_{21}H_{28}O_9$  (424.45). Colorless gum,  $[\alpha]_D^{26} = -52.4^\circ$  ( $c = 0.82$ , MeOH). Source: DAO LUAN YE PU GONG YING GEN *Taraxacum obovatum*. Ref: 5357.

**4751 Deacetylmetaplexigenin 3-O-β-D-oleandropyranosyl-(1→4)-α-D-oleandropyranoside**

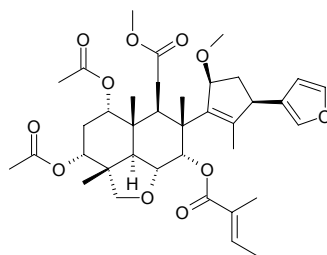
$C_{35}H_{56}O_{12}$  (668.83). White powder, mp 118~121°C,  $[\alpha]_D^{20} = +4.8^\circ$  ( $c = 0.21$ , EtOH). Source: QING YANG SHEN *Cynanchum otophyllum* (rhizome). Ref: 4574.

**4752 15-O-Deacetyl-15-O-methylnimbolidin A**

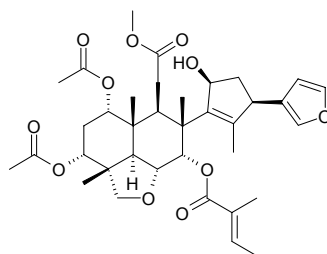
$C_{39}H_{48}O_{11}$  (692.81). Colorless amorphous solid,  $[\alpha]_D^{21} = -5.8^\circ$  ( $c = 1.26$ ,  $CHCl_3$ ). Pharm: Cytotoxic (HeLa-S3,  $IC_{50} = 37.4\mu\text{mol/L}$ , control 5-FU,  $IC_{50} = 5.40\mu\text{mol/L}$ , Cisplatin,  $IC_{50} = 2.46\mu\text{mol/L}$ ). Source: KU LIAN SHI *Melia azedarach* (ripe fruit). Ref: 4528.

**4753 15-O-Deacetyl-15-O-methylnimbolidin B**

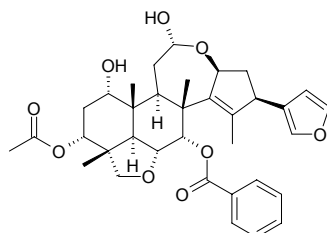
$C_{37}H_{50}O_{11}$  (670.80). Colorless amorphous solid,  $[\alpha]_D^{21} = -6.7^\circ$  ( $c = 1.28$ ,  $CHCl_3$ ). Pharm: Cytotoxic (HeLa-S3,  $IC_{50} = 28.3\mu\text{mol/L}$ , control 5-FU,  $IC_{50} = 5.40\mu\text{mol/L}$ , Cisplatin,  $IC_{50} = 2.46\mu\text{mol/L}$ ). Source: KU LIAN SHI *Melia azedarach* (ripe fruit). Ref: 4528.

**4754 15-O-Deacetylnimbolidin B**

$C_{36}H_{48}O_{11}$  (656.78). Colorless amorphous solid,  $[\alpha]_D^{21} = -6.7^\circ$  ( $c = 1.28$ ,  $CHCl_3$ ). Pharm: Cytotoxic (HeLa-S3,  $IC_{50} = 0.10\mu\text{mol/L}$ , control 5-FU,  $IC_{50} = 5.40\mu\text{mol/L}$ , Cisplatin,  $IC_{50} = 2.46\mu\text{mol/L}$ ). Source: KU LIAN SHI *Melia azedarach* (ripe fruit). Ref: 4528.

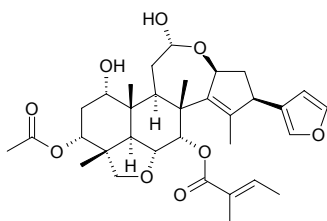
**4755 1-Deacetylnimbolidin A**

$C_{33}H_{42}O_9$  (606.72). Amorphous powder,  $[\alpha]_D = -7^\circ$  ( $c = 0.15$ ). Source: CHUAN LIAN PI *Melia toosendan*. Ref: 2374.

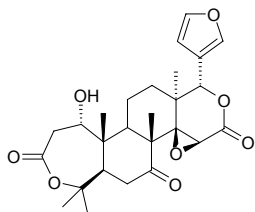


**4756 1-Deacetylnimbolin B**

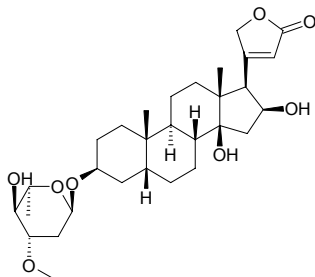
$C_{33}H_{44}O_9$  (584.71). Amorphous powder. Source: CHUAN LIAN PI *Melia toosendan*. Ref: 2374.

**4757 Deacetylnomilin**

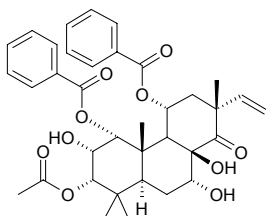
$C_{26}H_{32}O_8$  (472.54). Source: YOU HE *Citrus grandis*. Ref: 6.

**4758 Deacetyloleandrin**

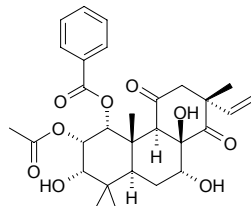
$C_{30}H_{46}O_8$  (534.70). mp 235~238°C. Source: JIA ZHU TAO *Nerium indicum*. Ref: 6.

**4759 7-O-Deacetylorthosiphol B**

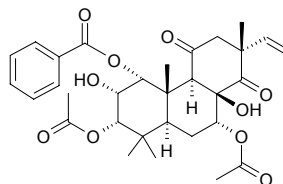
$C_{36}H_{42}O_{10}$  (634.73). Colorless amorphous solid,  $[\alpha]_D^{25} = -94.4^\circ$  ( $c = 0.033$ ,  $CHCl_3$ ). Pharm: NO production inhibitor (LPS-activated macrophage-like J774.1 cells,  $IC_{50} = 102\mu mol/L$ ; control *L*-NMMA,  $IC_{50} = 26.0\mu mol/L$ , Polymixin B,  $IC_{50} = 27.8\mu g/mL$ , Dexamethasone  $IC_{50} = 170\mu mol/L$ ). Source: XIONG RUI ZHUANG ZHI GUAN CAO *Orthosiphon stamineus* [Syn: *Orthosiphon aristatus*; *Orthosiphon grandiflorus*; *Orthosiphon spicatus*] (aerial parts). Ref: 4322.

**4760 3-O-Deacetylorthosiphol I**

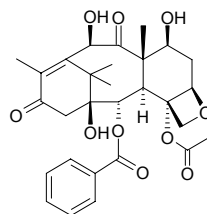
$C_{29}H_{36}O_9$  (528.60). Colorless amorphous solid,  $[\alpha]_D^{25} = -47.8^\circ$  ( $c = 0.04$ ,  $CHCl_3$ ). Pharm: NO production inhibitor (LPS-activated macrophage-like J774.1 cells,  $IC_{50} = 66.3\mu mol/L$ ; control *L*-NMMA,  $IC_{50} = 26.0\mu mol/L$ , Polymixin B,  $IC_{50} = 27.8\mu g/mL$ , Dexamethasone  $IC_{50} = 170\mu mol/L$ ). Source: XIONG RUI ZHUANG ZHI GUAN CAO *Orthosiphon stamineus* [Syn: *Orthosiphon aristatus*; *Orthosiphon grandiflorus*; *Orthosiphon spicatus*] (aerial parts: yield = 0.000045%dw). Ref: 4322, 4741.

**4761 2-O-Deacetylorthosiphol J**

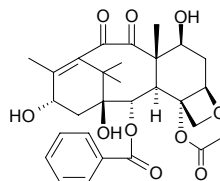
$C_{31}H_{38}O_{10}$  (570.64). Colorless amorphous solid,  $[\alpha]_D^{25} = -48.6^\circ$  ( $c = 0.044$ ,  $CHCl_3$ ). Pharm: NO production inhibitor (LPS-activated macrophage-like J774.1 cells,  $IC_{50} = 24.1\mu mol/L$ ; control *L*-NMMA,  $IC_{50} = 26.0\mu mol/L$ , Polymixin B,  $IC_{50} = 27.8\mu g/mL$ , Dexamethasone  $IC_{50} = 170\mu mol/L$ ). Source: XIONG RUI ZHUANG ZHI GUAN CAO *Orthosiphon stamineus* [Syn: *Orthosiphon aristatus*; *Orthosiphon grandiflorus*; *Orthosiphon spicatus*] (aerial parts). Ref: 4322.

**4762 10-Deacetyl-13-oxobaccatin III**

$C_{29}H_{34}O_{10}$  (542.59). Pharm: Cytotoxic (*in vitro*, 30 $\mu g/mL$ : A498, InRt = 29.7%; NCI-H226, InRt = 49.2%; A549, InRt = 43.9%; PC3, InRt = 65.3%; control Taxol, 30 $\mu g/mL$ : A498, InRt = 98.2%; NCI-H226, InRt = 71.2%; A549, InRt = 79.7%; PC3, InRt = 91.7%). Source: SU MEN DA LA HONG DOU SHAN *Taxus sumatrana* (leaf and twig). Ref: 4800.

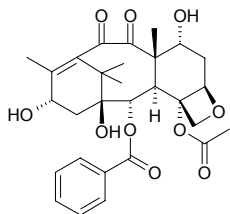
**4763 10-Deacetyl-10-oxobaccatin III**

$C_{29}H_{34}O_{10}$  (542.59). Pharm: Cytotoxic (*in vitro*, 30 $\mu g/mL$ : A498, InRt = 79.1%; NCI-H226, InRt = 97.3%; A549, InRt = 54.7%; PC3, InRt = 100%; control Taxol, 30 $\mu g/mL$ : A498, InRt = 98.2%; NCI-H226, InRt = 71.2%; A549, InRt = 79.7%; PC3, InRt = 91.7%). Source: SU MEN DA LA HONG DOU SHAN *Taxus sumatrana* (leaf and twig). Ref: 4800.

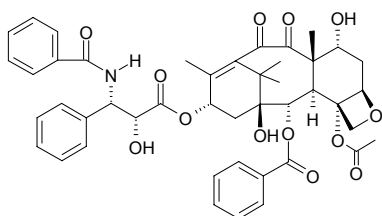


**4764 10-Deacetyl-10-oxobaccatin V**

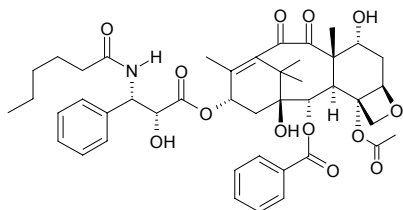
$C_{29}H_{34}O_{10}$  (542.59). Source: HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**4765 10-Deacetyl-10-oxo-7-epitaxol**

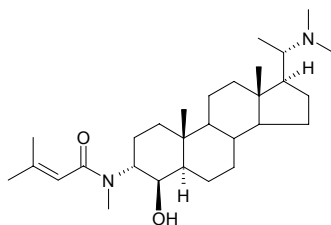
$C_{45}H_{47}NO_{13}$  (809.88).  $[\alpha]_D^{25} = -60.4$  (MeOH). Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*, SU MEN DA LA HONG DOU SHAN *Taxus sumatrana* (twig and leaf: yield = 0.000026%dw)<sup>[4666]</sup>. Ref: 662, 4666.

**4766 10-Deacetyl-10-oxo-7-epitaxuyunnanine A**

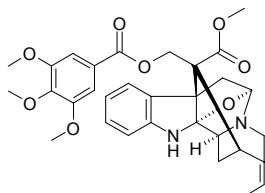
$C_{44}H_{53}NO_{13}$  (803.91).  $[\alpha]_D^{25} = -70.8^\circ$  (CHCl<sub>3</sub>). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 662.

**4767 O-Deacetylpachysandrine B**

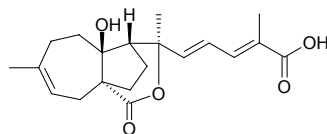
$C_{29}H_{50}N_2O_2$  (458.73). mp 184~185°C. Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 6.

**4768 Deacetylpicaline-3,4,5-trimethoxybenzoate**

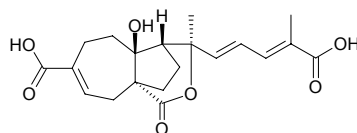
$C_{31}H_{34}N_2O_8$  (562.63). White acicular crystals, mp 222°C,  $[\alpha]_D^{17} = -185^\circ$  ( $c = 0.052$ , chloroform). Source: DIAN JI GU CHANG SHAN *Alstonia yunnanensis*. Ref: 42.

**4769 Deacetylpsedolaric acid A**

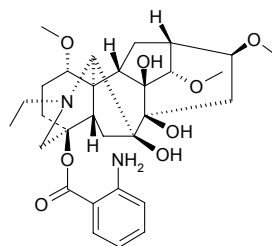
$C_{20}H_{26}O_5$  (346.43). Source: TU JING PI *Pseudolarix amabilis* [Syn. *Larix amabilis*; *Pseudolarix kaempferi*] (root cortex: yield = 0.00003%dw). Ref: 4637.

**4770 Deacetylpsedolaric acid C<sub>2</sub>**

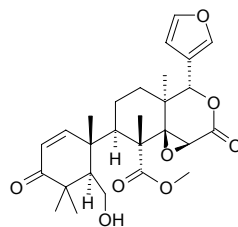
$C_{20}H_{24}O_7$  (376.41). Source: TU JING PI *Pseudolarix amabilis* [Syn. *Larix amabilis*; *Pseudolarix kaempferi*] (root cortex: yield = 0.00025%dw). Ref: 4637.

**4771 N-Deacetylraconitine**

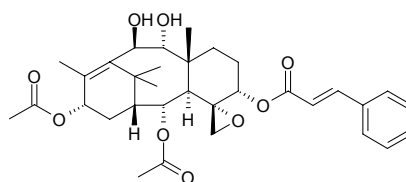
[82872-80-8]  $C_{30}H_{42}N_2O_8$  (558.68). Pharm: Analgesic; toxin. Source: GAN WAN WU TOU *Aconitum finetianum*. Ref: 658.

**4772 Deacetylsecmahoganin**

$C_{27}H_{34}O_8$  (486.57). White amorphous powder. Source: TAO HUA XIN MU *Swietenia mahogany* (leaf). Ref: 4420.

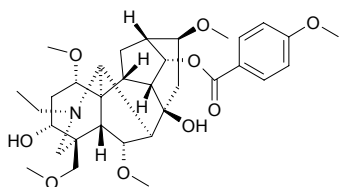
**4773 10β-Deacetylpicatinine**

$C_{33}H_{42}O_9$  (582.70). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.

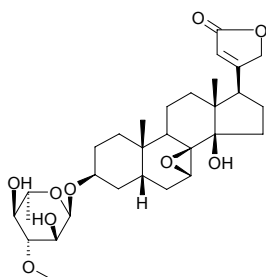


**4774 8-Deacetylsungpanconitine**

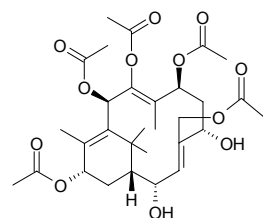
$C_{33}H_{47}NO_9$  (601.74). Source: ZHUA KUI GUA YE WU TOU *Aconitum hemsleyanum* var. *leueanthus* (root; yield = 0.0027%dw). Ref: 4678.

**4775 Deacetyltanghinin**

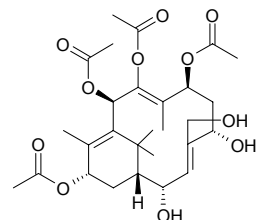
$C_{30}H_{44}O_9$  (548.68). Pharm: Cytotoxic (KB,  $ED_{50}$  = 0.05  $\mu$ g/mL, BC,  $ED_{50}$  = 1.48  $\mu$ g/mL, NCI-H187,  $ED_{50}$  = 0.1  $\mu$ g/mL)<sup>[2594]</sup>. Source: NIU XIN QIE *ZI Cerbera manghas*. Ref: 2594.

**4776 2-Deacetyltaxachitriene A**

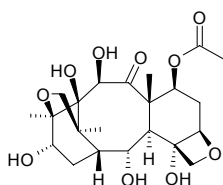
$C_{30}H_{42}O_{12}$  (594.66). mp 82~83°C,  $[\alpha]_D = -51^\circ$  ( $CHCl_3$ ). Source: HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**4777 5-Deacetyltaxachitriene B**

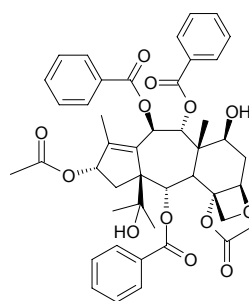
$C_{28}H_{40}O_{11}$  (552.62). mp 96~98°C,  $[\alpha]_D = +67.7^\circ$  (MeOH). Source: HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**4778 4-Deacetyltaxagifine III**

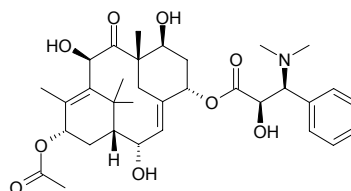
[135962-71-9]  $C_{22}H_{32}O_{10}$  (456.49). mp 221~223°C,  $[\alpha]_D = +38.1^\circ$  (MeOH). Source: HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**4779 7-Deacetyltaxayuntin D**

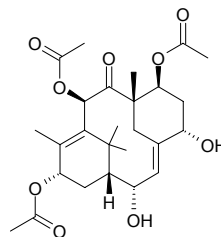
$C_{45}H_{48}O_{13}$  (796.88). mp 164~166°C. Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**4780 2-Deacetyltaxine A**

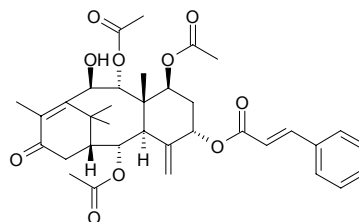
Taxine C  $C_{33}H_{45}NO_9$  (599.73). mp 220~221°C,  $[\alpha]_D = -106^\circ$  ( $CHCl_3$ ),  $[\alpha]_D = -73^\circ$  ( $CHCl_3$ ). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662, 1498.

**4781 2-Deacetyltaxine B**

2-Deacetyl-7,10-diacetyl-5-deaminoacyl taxine A  $C_{26}H_{36}O_9$  (492.57). mp 178~179°C,  $[\alpha]_D = -218.2^\circ$  ( $CHCl_3$ ). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle leaf), YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 662, 3958.

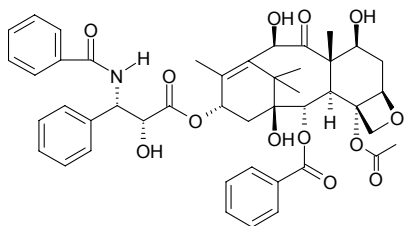
**4782 10-Deacetyl taxinine B**

$C_{35}H_{42}O_{10}$  (622.72). Colorless thin acicular crystals, mp 245~248°C. Source: ZI SHAN *Taxus cuspidata*. Ref: 291, 662.

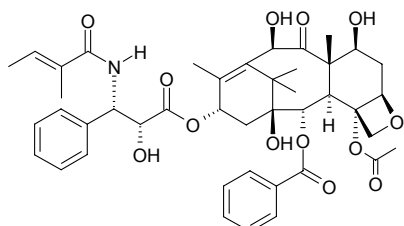


**4783 10-Deacetyltaxol**

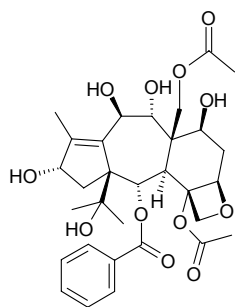
$C_{45}H_{49}NO_{13}$  (811.89).  $[\alpha]_D = -3^\circ$  (pyridine). Source: XI MA LA YA HONG DOU SHAN *Taxus wallichiana*, JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**4784 10-Deacetyltaxol B**

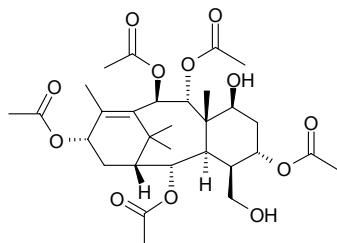
10-Deacetylcephalomannine  $C_{43}H_{51}NO_{13}$  (789.88).  $[\alpha]_D = -2^\circ$  (pyridine). Source: XI MA LA YA HONG DOU SHAN *Taxus wallichiana*, JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**4785 13-O-Deacetyltaxumairol Z**

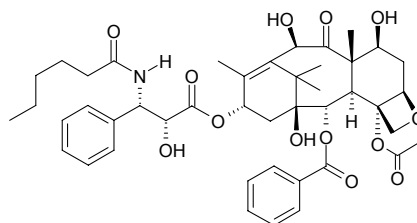
$C_{31}H_{40}O_{12}$  (604.66). Amorphous powder,  $[\alpha]_D^{25} = -42^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). Source: MEI LI HONG DOU SHAN *Taxus mairei* (root). Ref: 4250.

**4786 7-Deacetyltaxuspine L**

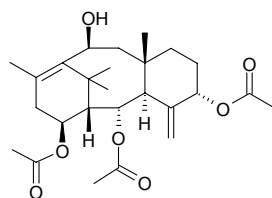
$C_{30}H_{44}O_{12}$  (596.68). Gum. Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle leaf). Ref: 3958.

**4787 10-Deacetyltaxuyunnanine A**

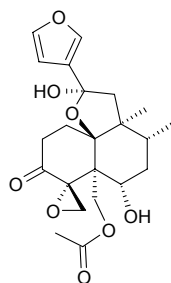
10-Deacetyltaxol C  $C_{44}H_{55}NO_{13}$  (805.93).  $[\alpha]_D = -50.9^\circ$  ( $CHCl_3$ ). Source: SU MEN DA LA HONG DOU SHAN *Taxus sumatrana* (twig and leaf: yield = 0.000026%dw)<sup>[4666]</sup>, YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 662, 4666.

**4788 10-Deacetyltaxuyunnanine C**

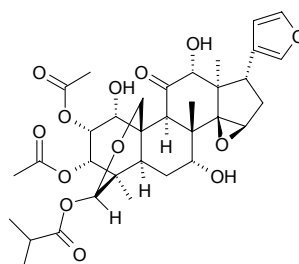
$C_{26}H_{38}O_7$  (462.59). Pharm: Cytotoxic (*in vitro*, Colon26-L5,  $EC_{50} = 76.1 \mu g/mL$ ; HT1080,  $EC_{50} = 53.8 \mu g/mL$ ; control 5-FU, 26-L5,  $EC_{50} = 0.29 \mu g/mL$ ; HT1080,  $EC_{50} = 0.07 \mu g/mL$ )<sup>[4661]</sup>; NO production inhibitor ( $IC_{50} = 28.5 \mu mol/L$ , control *L*-NMMA,  $IC_{50} = 28.5 \mu mol/L$ )<sup>[5407]</sup>. Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis* (wood: yield = 0.0031%dw). Ref: 4661, 5407.

**4789 6-Deacetyl-teucrolivin A**

$C_{22}H_{28}O_8$  (420.46). Amorphous solid,  $[\alpha]_D^{25} = +39.60^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). Source: DONG FANG XIANG KE KE *Teucrium orientale*. Ref: 2552.

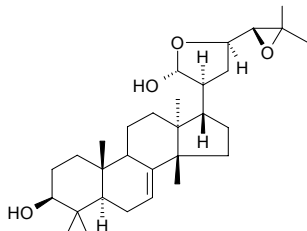
**4790 12-O-Deacetyltrichilin H**

$C_{34}H_{44}O_{13}$  (660.72). Colorless amorphous solid,  $[\alpha]_D^{21} = -47.5^\circ$  ( $c = 1.06$ ,  $CHCl_3$ ). Pharm: Cytotoxic (HeLa-S3,  $IC_{50} = 0.48 \mu mol/L$ , control 5-FU,  $IC_{50} = 5.40 \mu mol/L$ , Cisplatin,  $IC_{50} = 2.46 \mu mol/L$ ). Source: KU LIAN SHI *Melia azedarach* (ripe fruit). Ref: 4528.

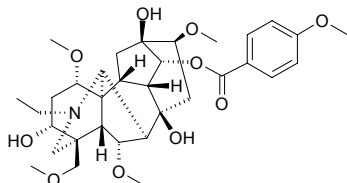


**4791 Deacetylurraeanthin**

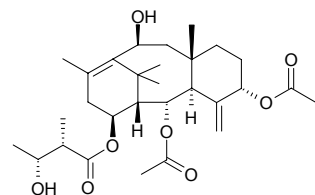
$C_{30}H_{48}O_4$  (472.71). mp 202–206°C. Source: RI BEN KU LIAN *Melia azedarach* var. *japonica*. Ref: 6, 660.

**4792 8-Deacetylynaconitine**

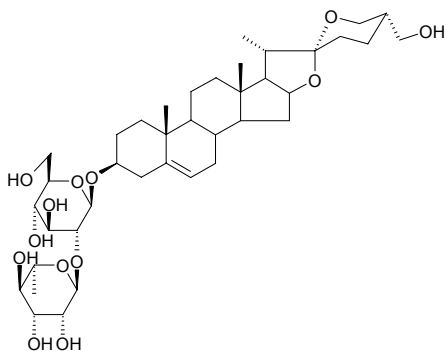
[93460-55-0]  $C_{33}H_{47}NO_{10}$  (617.74). White amorphous powder. Source: GONG GA SHAN WU TOU *Aconitum liljestrandii*, GUAY YE WU TOU *Aconitum hemsleyanum*. Ref: 2191.

**4793 10-Deacetylyunnanaxane**

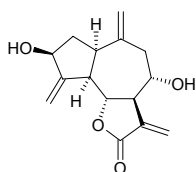
$C_{29}H_{44}O_8$  (520.67). Source: JIE ZHI HONG DOU SHAN *Taxus media*. Ref: 662.

**4794 Deacylbrownioside**

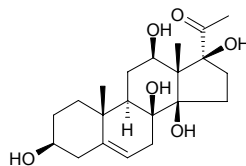
$C_{39}H_{62}O_{13}$  (738.92). Colorless needles ( $CHCl_3$ -MeOH), mp 258–260°C (dec),  $[\alpha]_D^{23.9} = -100^\circ$  ( $c = 0.175$ , pyridine). Source: XIAO HUA DUN YE SHU YU *Dioscorea parviflora* (fresh rhizome). Ref: 4858.

**4795 Deacylnaropicrin**

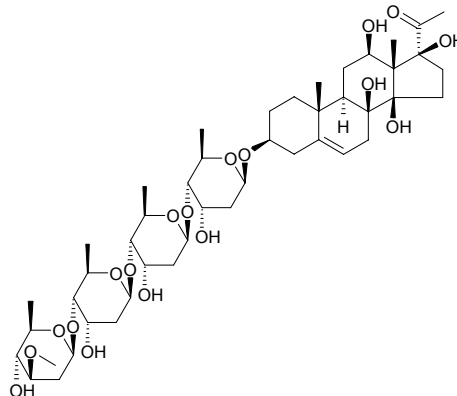
$C_{15}H_{18}O_4$  (262.31). mp 152°C,  $[\alpha]_D^{20} = +120^\circ$  ( $c = 0.5$ , methanol). Pharm: Cytotoxic (HeLa,  $ID_{50} = 5\mu g/mL$ ). Source: YAN DI FENG MAO JU *Saussurea salsa*. Ref: 661.

**4796 Deacetylmetaplexigenin**

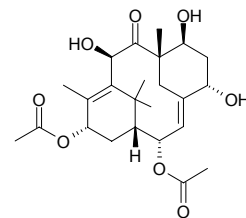
$C_{21}H_{32}O_6$  (380.48). Source: LUO MO *Metaplexis japonica*, BAI SHOU WU *Cynanchum bungei*, ROU HONG MA LI JIN *Asclepias incarnata* (aerial parts). Ref: 6, 3925.

**4797 Deacetylmetaplexigenin 3-O-β-D-oleandropyranosyl-(1→4)-β-D-digitoxopyranosyl-(1→4)-β-D-digitoxopyranosyl-(1→4)-β-D-digitoxopyranoside**

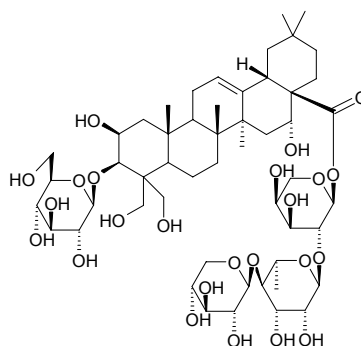
$C_{46}H_{74}O_{18}$  (915.09). Amorphous powder,  $[\alpha]_D^{27} = +18.6^\circ$  ( $c = 1.17$ , MeOH). Source: ROU HONG MA LI JIN *Asclepias incarnata* (aerial parts). Ref: 3925.

**4798 Deaminoacyltaxine A**

$C_{24}H_{34}O_8$  (450.53). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**4799 Deapio platycodin D**

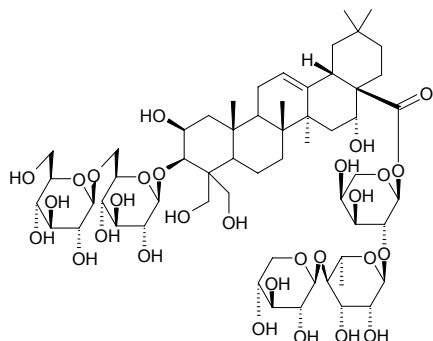
3-O-β-D-Glucopyranosyl-2β,3β,16α,23,24-pentahydroxyolean-12-ene-28-oic acid 28-O-β-D-xylopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranoside  $C_{52}H_{84}O_{24}$  (1093.23). Source: JIE GENG *Platycodon grandiflorum*. Ref: 4900.



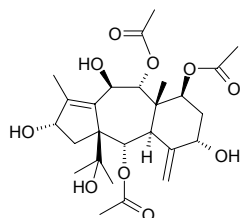
**4800 Deapio platycodin D<sub>3</sub>**

3-*O*-β-*D*-Glucopyranosyl-(1→6)-β-*D*-glucopyranosyl 2β,3β,16α,23,24-pentahydroxyolean-12-ene-28-oic acid 28-*O*-β-*D*-xylopyranosyl-(1→4)-α-*L*-rhamnopyranosyl-(1→2)-α-*L*-arabinopyranoside C<sub>58</sub>H<sub>94</sub>O<sub>29</sub> (1255.38).

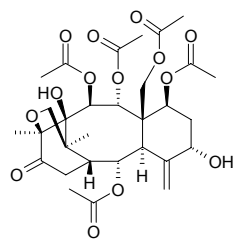
Source: JIE GENG *Platycodon grandiflorum*. Ref: 4900.

**4801 10-Debenzoyl-2α-acetoxy-brevifoliol**

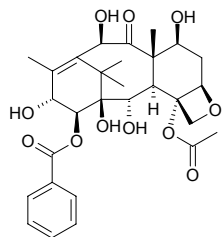
C<sub>26</sub>H<sub>38</sub>O<sub>10</sub> (510.59). mp 180°C, [α]<sub>D</sub> = +32.6° (MeOH). Source: XI MA LA YA HONG DOU SHAN *Taxus wallichiana*. Ref: 662.

**4802 19-Debenzoyl-19-acetyltaxinine M**

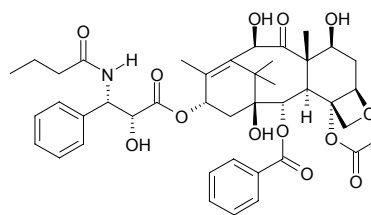
C<sub>30</sub>H<sub>40</sub>O<sub>14</sub> (624.64). Source: XI MA LA YA HONG DOU SHAN *Taxus wallichiana*. Ref: 662.

**4803 2-Debenzoyl-14β-benzoyloxy-10-deacetylbaaccatin III**

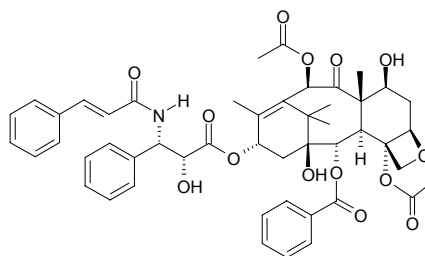
C<sub>29</sub>H<sub>36</sub>O<sub>11</sub> (560.60). Source: XI MA LA YA HONG DOU SHAN *Taxus wallichiana*. Ref: 662.

**4804 N-Debenzoyl-N-butanoyl-10-deacetylpaclitaxel**

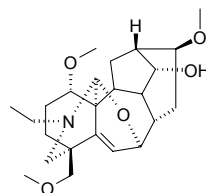
C<sub>42</sub>H<sub>51</sub>NO<sub>13</sub> (777.87). mp 244°C. Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**4805 N-Debenzoyl-N-cinnamoyltaxol**

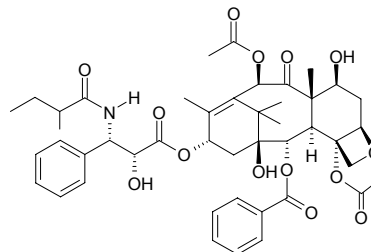
C<sub>49</sub>H<sub>53</sub>NO<sub>14</sub> (879.97). mp 180°C, [α]<sub>D</sub> = -16.6° (MeOH). Source: ZA JIAO JIE ZHI HONG DOU SHAN *Taxus x media*. Ref: 662.

**4806 14-Debenzoylfranchetine**

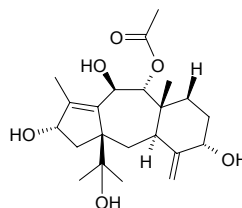
C<sub>24</sub>H<sub>37</sub>NO<sub>5</sub> (419.57). White amorphous powder. Source: GONG GA SHAN WU TOU *Aconitum liljestrandii*. Ref: 2191.

**4807 N-Debenzoyl-N-(2-methylbutyryl)taxol**

C<sub>45</sub>H<sub>55</sub>NO<sub>14</sub> (833.94). mp 226°C, [α]<sub>D</sub> = -48° (MeOH). Source: ZA JIAO JIE ZHI HONG DOU SHAN *Taxus x media*. Ref: 662.

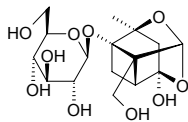
**4808 7-Debenzoyloxy-10-deacetyl-brevifoliol**

C<sub>22</sub>H<sub>34</sub>O<sub>6</sub> (394.51). mp 160–162°C, [α]<sub>D</sub> = -24° (MeOH). Source: XI MA LA YA HONG DOU SHAN *Taxus wallichiana*. Ref: 662.

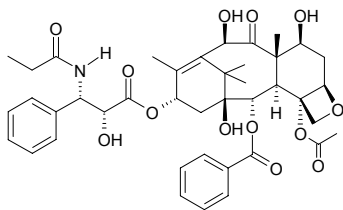


**4809 8-O-Debenzoylpaconiflorin**

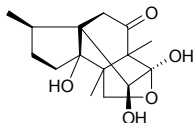
$C_{16}H_{24}O_{10}$  (376.36). Colorless amorphous solid,  $[\alpha]_D^{23} = -12.8^\circ$  ( $c = 0.195$ , MeOH). Source: *Ducrosia anethifolia* (aerial parts). Ref: 5469.

**4810 N-Debenzoyl-N-propanoyl-10-deacetyl paclitaxel**

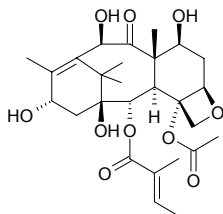
$C_{41}H_{49}NO_{13}$  (763.85). mp 245°C. Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**4811 11-O-Debenzoyltashironin**

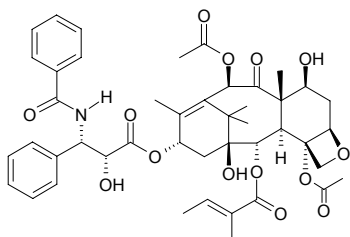
$C_{15}H_{22}O_5$  (282.34). Colorless solid,  $[\alpha]_D^{22} = -65^\circ$  ( $c = 0.72$ ,  $CHCl_3$ ). Pharm: Neurotrophic activity (primary culture of rat cortical neurons, 0.1-10  $\mu\text{mol/L}$ ). Source: *Illicium merrillianum* (pericarp; yield = 0.00019% dw). Ref: 3046.

**4812 2-Debenzoyl-2-tigloyl-10-deacetyl baccatin III**

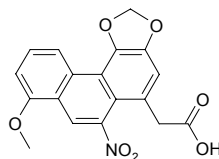
$C_{27}H_{38}O_{10}$  (522.60). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**4813 2-Debenzoyl-2-tigloyltaxol**

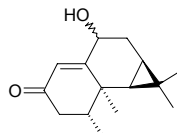
Isocephalomannine  $C_{45}H_{53}NO_{14}$  (831.92). mp 232°C,  $[\alpha]_D = -44^\circ$  (MeOH). Source: ZA JIAO JIE ZHI HONG DOU SHAN *Taxus x media*. Ref: 662.

**4814 Debilic acid**

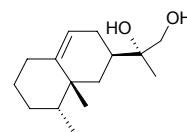
[475-85-4]  $C_{18}H_{13}NO_7$  (355.31). mp > 350°C (dec). Source: JI SHI TENG GUO *Paederia scandens*, QING MU XIANG *Aristolochia debilis* [Syn. *Aristolochia longa*]. Ref: 6, 660.

**4815 Debilone**

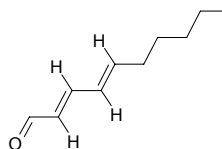
9-Hydroxy- $\Delta^{1(10)}$ -aristolene-2-one [26808-51-5]  $C_{15}H_{22}O_2$  (234.34). mp 135°C. Source: GAN SONG *Nardostachys chinensis*. Ref: 6.

**4816 Debneyol**

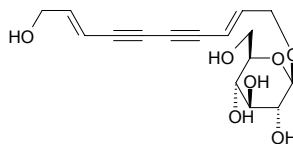
[99694-82-3]  $C_{15}H_{26}O_2$  (238.37). Pharm: Antifungal (*in vitro*, *Cladosporium cucumerinum*,  $ED_{50} = 50\text{--}70\mu\text{g/mL}$ ) Source: YAN CAO *Nicotiana tabacum*. Ref: 1087, 1114.

**4817 (E,E)-2,4-Decadienal**

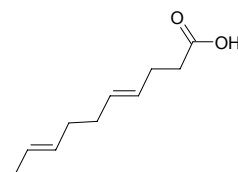
[25152-84-5]  $C_{10}H_{16}O$  (152.24). Source: XING REN *Prunus armeniaca*. Ref: 2.

**4818 (2E,8E)-2,8-Decadiene-4,6-diyne-1,10-diol 1-O-β-D-glucopyranoside**

$C_{16}H_{20}O_7$  (324.33). Amorphous powder,  $[\alpha]_D^{21} = -77^\circ$  ( $c = 0.2$ , MeOH). Source: CANG ZHU *Atractylodes lancea*. Ref: 4348.

**4819 Decadienoic acid**

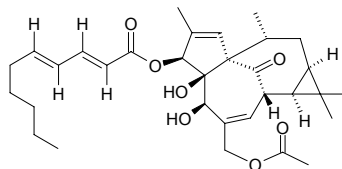
[13159-49-4]  $C_{10}H_{16}O_2$  (168.24). Source: PI JIU HUA *Humulus lupulus*. Ref: 1521.



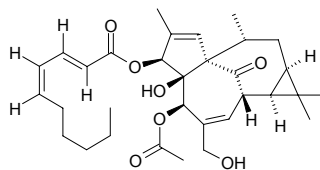


**4820 3-O-(2'E,4'E-Decadienoyl)-20-O-acetyligenol**

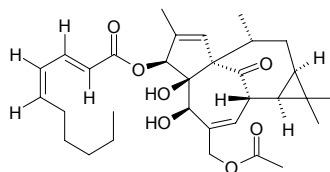
Ingenol-3-(2,4-decadienoate)-20-acetate C<sub>32</sub>H<sub>44</sub>O<sub>7</sub> (540.70). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +84.1° (*c* = 0.10, MeOH). **Pharm:** Cytotoxic (*in vitro* animal cap assay to screen for inhibitors of cell division, treatment of cultured individual *Xenopus* cells from the early *Xenopus laevis* embryo at the blastular stage, 0.5µg/mL, cleavage arrest > 75%)<sup>[4645]</sup>. **Source:** GAN SUI *Euphorbia kansui* (root: yield = 0.00006%dw)<sup>[4645]</sup>. **Ref:** 660, 4645.

**4821 3-O-(2'E,4'Z-Decadienoyl)-5-O-acetyligenol**

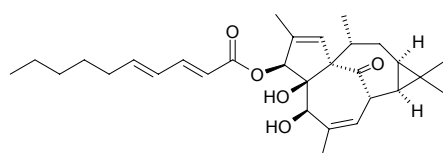
C<sub>32</sub>H<sub>44</sub>O<sub>7</sub> (540.7). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +61.73° (*c* = 0.10, MeOH). **Pharm:** Cytotoxic (*in vitro* animal cap assay to screen for inhibitors of cell division, treatment of cultured individual *Xenopus* cells from the early *Xenopus laevis* embryo at the blastular stage, 0.5µg/mL, cleavage arrest > 75%). **Source:** GAN SUI *Euphorbia kansui* (root: yield = 0.00005%dw). **Ref:** 4645.

**4822 3-O-(2'E,4'Z-Decadienoyl)-20-O-acetyligenol**

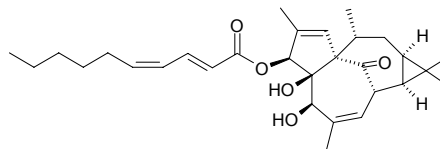
C<sub>32</sub>H<sub>44</sub>O<sub>7</sub> (540.70). Colorless oil. **Pharm:** Cytotoxic (*in vitro* animal cap assay to screen for inhibitors of cell division, treatment of cultured individual *Xenopus* cells from the early *Xenopus laevis* embryo at the blastular stage, 0.5µg/mL, cleavage arrest > 75%). **Source:** GAN SUI *Euphorbia kansui* (root: yield = 0.00007%dw). **Ref:** 4645.

**4823 3-O-(2E,4E-Decadienoyl)-20-deoxyingenol**

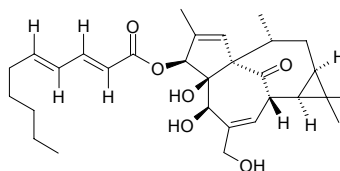
C<sub>30</sub>H<sub>42</sub>O<sub>5</sub> (482.67). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +57.5° (*c* = 0.16, MeOH). **Pharm:** Induces cell cleavage arrest (*Xenopus laevis* embryo cells at the blastular stage, at 0.5µg/mL compound results in > 75% cell cleavage arrest). **Source:** GAN SUI *Euphorbia kansui*. **Ref:** 4368.

**4824 3-O-(2E,4Z-Decadienoyl)-20-deoxyingenol**

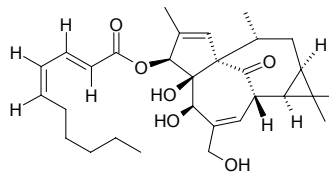
C<sub>30</sub>H<sub>42</sub>O<sub>5</sub> (482.67). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +42.1° (*c* = 0.28, MeOH). **Pharm:** Induces cell cleavage arrest (*Xenopus laevis* embryo cells at the blastular stage, at 0.5µg/mL compound results in > 75% cell cleavage arrest). **Source:** GAN SUI *Euphorbia kansui*. **Ref:** 4368.

**4825 3-O-(2'E,4'E-Decadienoyl)ingenol**

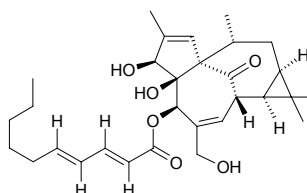
C<sub>30</sub>H<sub>42</sub>O<sub>6</sub> (498.67). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +89.09° (*c* = 0.10, MeOH). **Pharm:** Cytotoxic (*in vitro* animal cap assay to screen for inhibitors of cell division, treatment of cultured individual *Xenopus* cells from the early *Xenopus laevis* embryo at the blastular stage, 0.5µg/mL, cleavage arrest > 75%). **Source:** GAN SUI *Euphorbia kansui* (root: yield = 0.00009%dw). **Ref:** 4645.

**4826 3-O-(2'E,4'Z-Decadienoyl)ingenol**

C<sub>30</sub>H<sub>42</sub>O<sub>6</sub> (498.67). **Pharm:** Cytotoxic (*in vitro* animal cap assay to screen for inhibitors of cell division, treatment of cultured individual *Xenopus* cells from the early *Xenopus laevis* embryo at the blastular stage, 0.5µg/mL, cleavage arrest > 75%). **Source:** GAN SUI *Euphorbia kansui* (root: yield = 0.00011%dw). **Ref:** 4645.

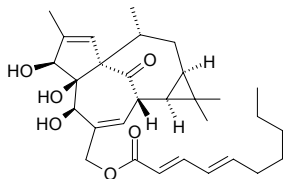
**4827 5-O-(2'E,4'E-Decadienoyl)ingenol**

C<sub>30</sub>H<sub>42</sub>O<sub>6</sub> (498.67). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -7.69° (*c* = 0.13, MeOH). **Pharm:** Cytotoxic (*in vitro* animal cap assay to screen for inhibitors of cell division, treatment of cultured individual *Xenopus* cells from the early *Xenopus laevis* embryo at the blastular stage, 0.5µg/mL, cleavage arrest > 75%). **Source:** GAN SUI *Euphorbia kansui* (root: yield = 0.0015%dw). **Ref:** 4645.

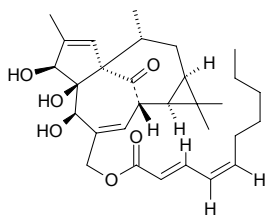


**4828 20-O-(2'E,4'E-Decadienoyl)ingenol**

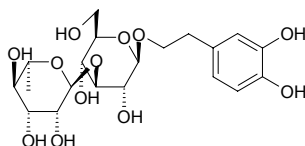
$C_{30}H_{42}O_6$  (498.67). Colorless oil,  $[\alpha]_D^{23} = +3.15^\circ$  ( $c = 0.19$ , MeOH).  
**Pharm:** Cytotoxic (*in vitro* animal cap assay to screen for inhibitors of cell division, treatment of cultured individual *Xenopus* cells from the early *Xenopus laevis* embryo at the blastular stage, 0.5  $\mu\text{g}/\text{mL}$ , cleavage arrest > 75%). **Source:** GAN SUI *Euphorbia kansui* (root: yield = 0.00008%dw).  
**Ref:** 4645.

**4829 20-O-(2'E,4'Z-Decadienoyl)ingenol**

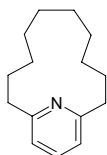
$C_{30}H_{42}O_6$  (498.67). Colorless oil,  $[\alpha]_D^{23} = +2.50^\circ$  ( $c = 0.16$ , MeOH).  
**Pharm:** Cytotoxic (*in vitro* animal cap assay to screen for inhibitors of cell division, treatment of cultured individual *Xenopus* cells from the early *Xenopus laevis* embryo at the blastular stage, 0.5  $\mu\text{g}/\text{mL}$ , cleavage arrest > 75%). **Source:** GAN SUI *Euphorbia kansui* (root: yield = 0.00009%dw).  
**Ref:** 4645.

**4830 Decaffeoylverbascoide**

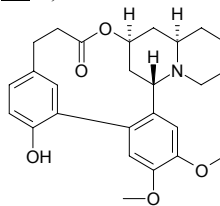
Decaffeoylverbascoide  $C_{20}H_{30}O_{12}$  (462.45). **Pharm:** Antioxidant (ferric thiocyanate method, 0.5mmol/L, peroxidation value = 6.6%, control BHA, 0.5mmol/L, peroxidation value = 4.5%, control Vitamin E, 0.5mmol/L, peroxidation value = 14.7%)<sup>[4508]</sup>. **Source:** ROU CONG RONG *Cistanche deserticola*, TIAN SHE CAO *Lippia dulcis* (aerial parts). **Ref:** 2448, 4508.

**4831 2,6-Decamethylene pyridine**

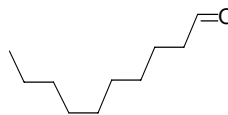
$C_{15}H_{23}N$  (217.36). **Source:** SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*. **Ref:** 2.

**4832 Decamine**

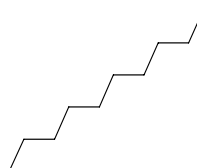
Weedone [17349-05-2]  $C_{26}H_{31}NO_5$  (437.54). mp 223~224°C. **Pharm:** Antibacterial (*Bacillus diphtheriae in vitro*, 4  $\mu\text{g}/\text{mL}$ ); antifungal (*Candida albicans in vitro*, 8  $\mu\text{g}/\text{mL}$ ). **Source:** ZI WEI HUA *Lagerstroemia indica*, DI KE DONG *Decodon verticillatus*, ZI WEI YE *Lagerstroemia indica*.  
**Ref:** 6, 658.

**4833 Decanal**

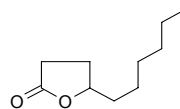
Capric aldehyde [112-31-2]  $C_{10}H_{20}O$  (156.27). **Source:** DONG LING CAO *Rabdosia rubescens*, GAN JIANG *Zingiber officinale*, JU PI *Citrus reticulata*, YU XING CAO *Houttuynia cordata*. **Ref:** 2.

**4834 Decane**

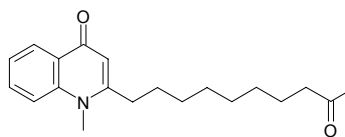
*n*-Decane [124-18-5]  $C_{10}H_{22}$  (142.29). **Source:** SHAN ZHA *Crataegus pinnatifida*. **Ref:** 2.

**4835  $\gamma$ -Decanolactone**

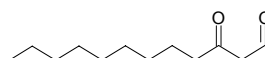
[706-14-9]  $C_{12}H_{18}O_2$  (170.25). **Source:** XING REN *Prunus armeniaca*, NAN HE SHI *Daucus carota*. **Ref:** 2, 660.

**4836 2-(Decan-9-one)-N-methyl-4-quinolone**

$C_{20}H_{27}NO_2$  (313.44). **Source:** MENG DA NA YUN XIANG *Ruta Montana* (whole herb). **Ref:** 3910.

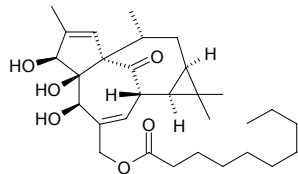
**4837 Decanoylactaldehyde**

Houttuynin  $C_{12}H_{22}O_2$  (198.31). **Pharm:** Antibacterial (*in vitro*, gram-positive bacteria, gram-negative bacteria; *in vitro* and *in vivo*, houttuynin isoniazone inhibits *Mycobacterium tuberculosis* strongly, MIC = 0.78~3.10  $\text{mg}/\text{mL}$ ); immunoenhancer (chronic bronchitis patient, orl 90  $\text{mg}$ , 3 times daily, after seven days the level of properdin in blood has ascending tendency). **Source:** YU XING CAO *Houttuynia cordata* (aerial parts: content = 0.05%)<sup>[5501]</sup>. **Ref:** 2, 4, 1974, 2056, 5501.

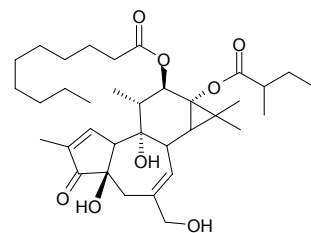


**4838 20-O-(Decanoyl)ingenol**

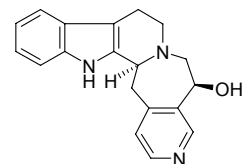
$C_{30}H_{46}O_6$  (502.7). **Pharm:** Cytotoxic (*in vitro* animal cap assay to screen for inhibitors of cell division, treatment of cultured individual *Xenopus* cells from the early *Xenopus laevis* embryo at the blastular stage, 0.5  $\mu\text{g}/\text{mL}$ , cleavage arrest > 75%). **Source:** GAN SUI *Euphorbia kansui* (root: yield = 0.00007%dw). **Ref:** 4645.

**4839 12-O-Decanoylphorbol-13-(2-methylbutyrate)**

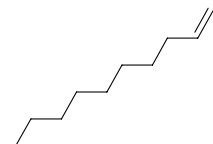
$C_{35}H_{54}O_8$  (602.82). Oil,  $[\alpha]_D^{25} = +56^\circ$  ( $c = 0.05$ ,  $\text{CHCl}_3$ ). **Pharm:** Anti-HIV-1 (MT-4 cells, HIV-1-induced cytopathic effect inhibitor,  $\text{IC}_{100} = 7.81 \mu\text{g}/\text{mL}$ ,  $\text{CC}_0 = 31.3 \mu\text{g}/\text{mL}$ , control DS8000,  $\text{IC}_{100} = 3.9 \mu\text{g}/\text{mL}$ ,  $\text{CC}_0 > 1000 \mu\text{g}/\text{mL}$ ); PKC activator inactive (10ng/mL, activity rate = 0%)<sup>[3921]</sup>. **Source:** BA DOU *Croton tiglium*. **Ref:** 3921.

**4840 Decarbomethoxy naucl echine**

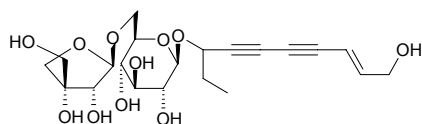
$C_{19}H_{19}N_3O$  (305.38). **Pharm:** Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*). **Source:** KUAN YE WU TAN *Nauclea latifolia*. **Ref:** 2178.

**4841 1-Decene**

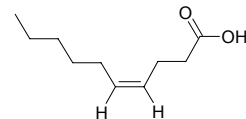
$C_{10}H_{20}$  (140.27). **Source:** KUAN DONG HUA *Tussilago farfara*. **Ref:** 660.

**4842 (2E)-2-Decene-4,6-diyne-1,8-diol 8-O-β-apiofuranosyl-(1→6)-β-D-glucopyranoside**

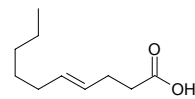
$C_{21}H_{30}O_{11}$  (458.47). Amorphous powder,  $[\alpha]_D^{23} = -144^\circ$  ( $c = 0.1$ , MeOH). **Source:** CANG ZHU *Atractylodes lancea* (rhizome). **Ref:** 4384.

**4843 cis-4-Decenoic acid**

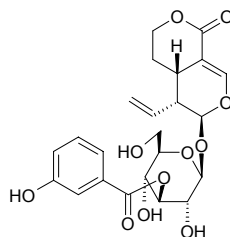
Obtusilic acid [505-90-8]  $C_{10}H_{18}O_2$  (170.25). bp 148~150°C/13mmHg. **Source:** CHENG QIE ZI *Litsea cubeba*, SAN ZUAN FENG *Lindera obtusiloba*, ZHEN CAI *Litsea pungens*. **Ref:** 6, 1521, 2825, 2956.

**4844 trans-4-Decenoic acid**

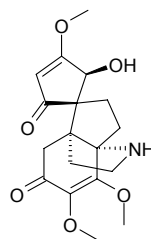
[26303-90-2]  $C_{10}H_{18}O_2$  (170.25). bp 148~150°C/13mmHg. **Source:** SAN ZUAN FENG *Lindera obtusiloba*. **Ref:** 6.

**4845 Decentapicrin A**

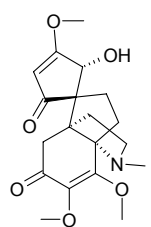
$C_{23}H_{26}O_{11}$  (478.46). **Source:** GUANG LIANG JIA LONG DAN *Gentiana nitida* (whole herb). **Ref:** 3542.

**4846 Dechloroacutumidine**

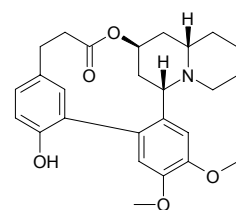
$C_{18}H_{23}NO_6$  (349.39).  $[\alpha]_D^{25} = -68^\circ$  ( $c = 0.2$ , MeOH) **Source:** BIAN FU GE *Menispermum dauricum*. **Ref:** 1946.

**4847 Dechlorodauricumine**

$C_{19}H_{25}NO_6$  (363.41). Amorphous powder,  $[\alpha]_D^{25} = +20.7^\circ$  ( $c = 0.10$ , MeOH). **Source:** BIAN FU GE GEN *Menispermum dauricum*. **Ref:** 5326.

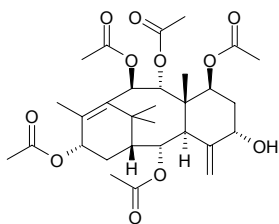
**4848 Decinine**

[10183-64-9]  $C_{26}H_{31}NO_5$  (437.54). mp 222~224°C. **Source:** ZI WEI YE *Lagerstroemia indica*. **Ref:** 6.

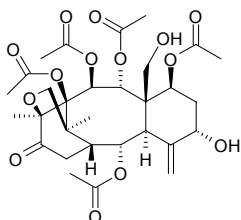


**4849 Decinnamol taxinine J**

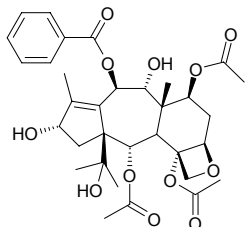
5 $\alpha$ -Hydroxy-2 $\alpha$ ,7 $\beta$ ,9 $\alpha$ ,10 $\beta$ ,13 $\alpha$ -Pentaacetoxy-4(20),11-taxadiene  
 C<sub>30</sub>H<sub>42</sub>O<sub>11</sub> (578.66). Colorless prisms. Source: AO DA LI YA HONG  
 DOU SHAN *Austrotaxus spicata*, DUAN YE HONG DOU SHAN *Taxus*  
*brevifolia*, HONG DOU SHAN *Taxus chinensis*. Ref: 662, 2488.

**4850 5-Decinnamoyl-11-acetyl-19-hydroxyl taxagifine**

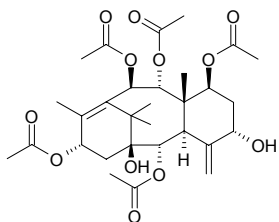
C<sub>30</sub>H<sub>40</sub>O<sub>14</sub> (624.64). White massive crystals, mp 209~210°C, [ $\alpha$ ]<sub>D</sub><sup>14</sup> =  
 -12.1° (chloroform). Source: YUN NAN HONG DOU SHAN *Taxus*  
*yunnanensis*. Ref: 296, 662.

**4851 13-Decinnamoyl-9-deacetyl taxichinin B**

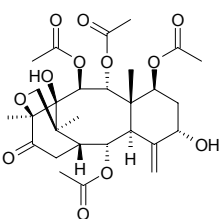
C<sub>33</sub>H<sub>42</sub>O<sub>12</sub> (630.70). Source: XI MA LA YA HONG DOU SHAN *Taxus*  
*wallichiana*. Ref: 662.

**4852 Decinnamoyl-1-hydroxy-taxinine J**

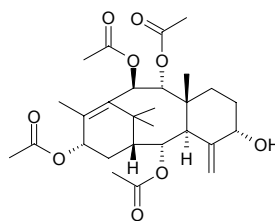
C<sub>30</sub>H<sub>42</sub>O<sub>12</sub> (594.66). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref:  
 662.

**4853 5 $\alpha$ -Decinnamoyltaxagifine**

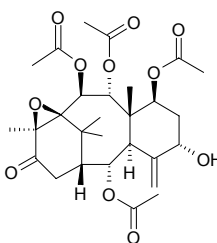
C<sub>28</sub>H<sub>38</sub>O<sub>12</sub> (566.61). Source: HONG DOU SHAN *Taxus chinensis*. Ref:  
 662.

**4854 Decinnamoyltaxinine E**

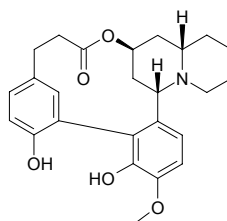
C<sub>28</sub>H<sub>40</sub>O<sub>9</sub> (520.63). Source: HONG DOU SHAN *Taxus chinensis*. Ref:  
 662.

**4855 Decinnamoyltaxinine B 11,12-oxide**

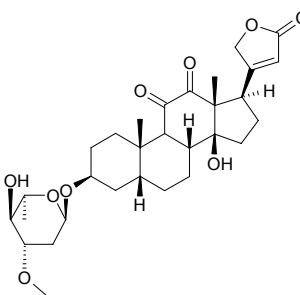
C<sub>28</sub>H<sub>38</sub>O<sub>11</sub> (550.61). Source: YUN NAN HONG DOU SHAN *Taxus*  
*yunnanensis*. Ref: 662.

**4856 Decodine**

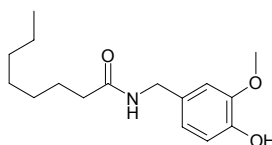
[26996-01-1] C<sub>25</sub>H<sub>29</sub>NO<sub>5</sub> (423.51). mp 193~197°C. Source: ZI WEI YE  
*Lagerstroemia indica*. Ref: 6.

**4857 Decoside**

C<sub>30</sub>H<sub>42</sub>O<sub>9</sub> (546.66). Pharm: Toxin (vertebrate). Source: YANG JIAO AO  
*Zi Strophanthus divaricatus*. Ref: 658.

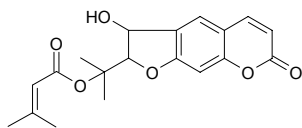
**4858 Decoyl vanillylamide**

C<sub>16</sub>H<sub>25</sub>NO<sub>3</sub> (279.38). Source: LA JIAO *Capsicum frutescens*. Ref: 6.

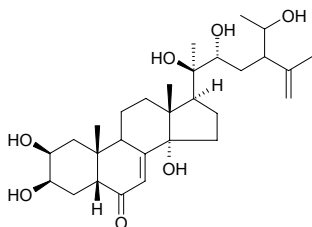


**4859 Decumbensol**

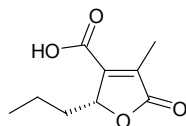
$C_{19}H_{20}O_6$  (344.37). Colorless massive crystals, mp 183~183.5°C,  $[\alpha]_D^{20} = +202^\circ$  ( $c = 0.53$ ,  $CHCl_3$ ). Source: QIAN HU *Angelica decursiva* [Syn. *Peucedanum decursivum*]. Ref: 9.

**4860 Decumbesterone A**

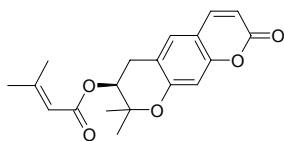
$C_{29}H_{46}O_7$  (506.69). Pharm: Antineoplastic (inhibits EBV-EA induction strongly). Source: BAI MAO XIA KU CAO *Ajuga decumbens*. Ref: 693.

**4861 Decubic acid**

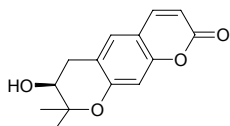
$C_9H_{12}O_4$  (184.19). mp 125~127°C,  $[\alpha]_D^{25} = +44.3^\circ$  ( $c = 0.47$ ,  $CHCl_3$ ). Source: *Lasiodiplodia theobromae* (fruit). Ref: 3867.

**4862 Decursin**

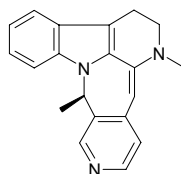
[5928-25-6]  $C_{19}H_{20}O_5$  (328.37). mp 110~111°C. Pharm: AChE inhibitor (*in vitro*,  $IC_{50} = 390\mu\text{mol/L}$ )<sup>[3058]</sup>; reduces muscular twitching (cultured myocardial cells line). Source: QIAN HU *Angelica decursiva* [Syn. *Peucedanum decursivum*], CHAO XIAN DANG GUI *Angelica gigas* (underground part)<sup>[3058]</sup>. Ref: 6, 658, 3058.

**4863 Decursinol**

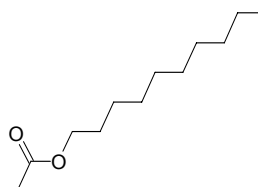
[23458-02-8]  $C_{14}H_{14}O_4$  (246.27). mp 176~177°C. Pharm: AChE inhibitor (*in vitro*,  $IC_{50} = 28\mu\text{mol/L}$ )<sup>[3058]</sup>; reduces muscular twitching (cultured myocardial cells line). Source: DA TIAO WEN XIE HAO *Seseli grandivittatum*, MU<sup>(4)</sup> JU *Aegle marmelos*, QIAN HU *Angelica decursiva* [Syn. *Peucedanum decursivum*], CHAO XIAN DANG GUI *Angelica gigas* (underground part)<sup>[3058]</sup>. Ref: 6, 658, 3058.

**4864 Decussine**

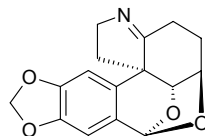
[75375-52-9]  $C_{20}H_{19}N_3$  (301.39). Yellow rhomboid crystals (methanol), mp 203~205°C. Pharm: Neuromuscular blocker. Source: DUI SHENG MA QIAN *Strychnos decussata*. Ref: 661.

**4865 n-Decyl acetate**

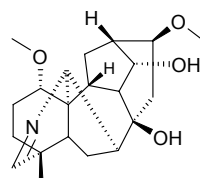
[112-17-4]  $C_{12}H_{24}O_2$  (200.32). mp -15.05°C, bp 244°C. Source: HEI MA YI *Formica fusca*. Ref: 6.

**4866 4a,N-Dedihydronoraugustamine**

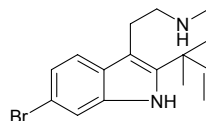
$C_{16}H_{15}NO_4$  (285.30). mp 127~130°C,  $[\alpha]_D^{20} = -242.6^\circ$  ( $c = 0.27$ , MeOH). Pharm: Antiprotozoal inactive (*Plasmodium falciparum*, *Leishmania donovani*, *Trypanosoma brucei*, *Trypanosoma cruzi*). Source: KEN NI YA WEN SHU LAN *Crinum kirkii* (bulb). Ref: 3892.

**4867 N-Deethyl-N-19-didehydrosachaconitine**

$C_{21}H_{31}NO_4$  (361.49). Amorphous solid,  $[\alpha]_D^{25} = +181.8^\circ$  ( $c = 0.11$ ,  $CHCl_3$ ). Source: BAN HUA WU TOU *Aconitum variegatum* (aerial parts). Ref: 5270.

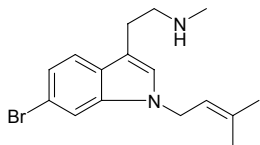
**4868 Deformylflustrabromine**

$C_{16}H_{21}BrN_2$  (321.26). Pharm: Affinity to nAChR ( $\alpha 4\beta 2^*$  subtype,  $K_i = (3400\pm 500)\text{nmol/L}$ , control (-)-Nicotine,  $K_i = (0.838\pm 0.132)\text{nmol/L}$ ;  $\alpha 7^*$  subtype,  $K_i > 50000\text{nmol/L}$ , (-)-Nicotine,  $K_i = (127\pm 5)\text{nmol/L}$ ). Source: BEI HAI XIAN TAI CHONG *Flustra foliacea*. Ref: 5029.



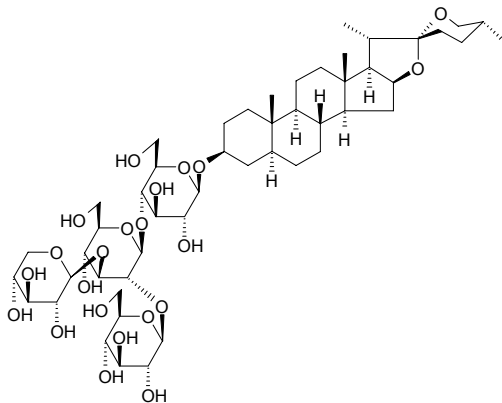
**4869 Deformylflustrabromine B**

$C_{16}H_{21}BrN_2$  (321.26). **Pharm:** Affinity to nAChR ( $\alpha 4\beta 2^*$  subtype,  $K_i > 50000$ nmol/L, control (-)-Nicotine,  $K_i = (0.838 \pm 0.132)$ nmol/L;  $\alpha 7^*$  subtype,  $K_i = (17000 \pm 2200)$ nmol/L, (-)-Nicotine,  $K_i = (127 \pm 5)$ nmol/L). **Source:** BEI HAI XIAN TAI CHONG *Flustra foliacea*. **Ref:** 5029.

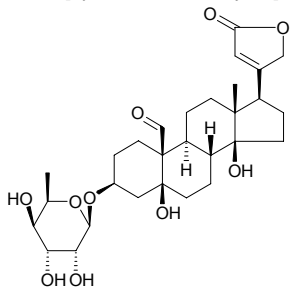
**4870 Degalactotigonin**

[39941-51-0]  $C_{50}H_{82}O_{22}$  (1035.20). **Pharm:** Antineoplastic (inhibits  $^{32}P$  combines with phospholipid in HeLa cells,  $50 \mu\text{g/mL}$ , InRt = 57.8%).

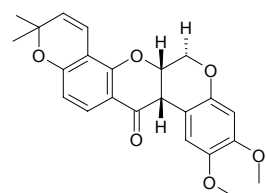
**Source:** ZHI MU *Anemarrhena asphodeloides*. **Ref:** 2, 1636.

**4871 Deglucocheirotxin**

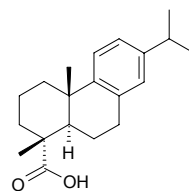
$C_{29}H_{42}O_{10}$  (550.65). mp 188–191°C. **Source:** LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. **Ref:** 6.

**4872 Deguelin**

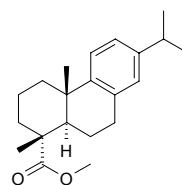
Degueline [522-17-8]  $C_{23}H_{22}O_6$  (394.43). Yellow crystals, mp 180–182°C (methanol); 171°C,  $[\alpha]_D^{20} = -107^\circ$  ( $c = 0.2$ , benzene). **Pharm:** Ornithine decarboxylase inhibitor (induced by ester phorbol,  $IC_{50} = 0.0003 \mu\text{g/mL}$ ); larvacide (larva of mosquito); nematocide (MLD =  $1 \mu\text{mol/L}$ ); anti-tumor promoter (*in vivo*, mouse skin tumor, inhibits TPA-induced EBV-EA activation, 100(mol ratio)/32 pmol TPA), EBV-EA positive cells = 72.3% viability, positive control  $\beta$ -Carotene, EBV-EA positive cells = 82.7% viability)<sup>[4982]</sup>. **Source:** MU LAN<sup>(2)</sup> *Indigofera tinctoria*, HUI YE GEN *Tephrosia purpurea*, MAO YU TENG *Derris elliptica*, YU TENG *Derris trifoliata* (stem), *Tephrosia* sp., *Lonchocarpus* sp. **Ref:** 6, 900, 4982.

**4873 Dehydroabietic acid**

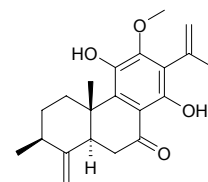
8,11,13-Abietatrien-18-oic acid [1740-19-8]  $C_{20}H_{28}O_2$  (300.44). Colorless acicular crystals, mp 174°C,  $[\alpha]_D^{20} = +66^\circ$  ( $c = 0.60$ , diethyl ether). **Pharm:** Activates nerve (stimulates release of neurotransmitter inhibitor ( $\gamma$ -aminobutyric acid) and neurotransmitter stimulant); antifungal (*in vitro*, *Pyricularia oryzae*, InRt = 100%); antiulcerative; used in treatment of hypertension and tachycardia caused by smoking; vasodilator. **Source:** XIAN MAI XIANG CHA CAI *Rabdosia nervosa*, LEI GONG TENG *Tripterygium wilfordii*. **Ref:** 900.

**4874 Dehydroabietic acid methyl ester**

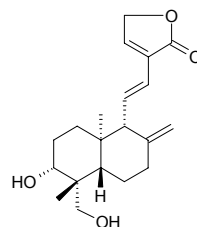
$C_{21}H_{30}O_2$  (314.47). **Pharm:** Antineoplastic (EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = 0% (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 60%; reference compound  $\beta$ -Carotene, relative percentage = 8.6%). **Source:** FU LING *Poria cocos* (sclerotium: yield = 0.0013%dw). **Ref:** 4616.

**4875 Dehydroagastol**

19(4→3)-Abeo-11,14-dihydroxy-12-methoxy-abieta-8,11,13,15-tetraen-7-one  $C_{21}H_{26}O_4$  (342.44). Yellow green acicular crystals, mp 159–161°C, soluble in hexane, chloroform and methanol. **Source:** GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*]. **Ref:** 210, 660.

**4876 Dehydroandrographolide**

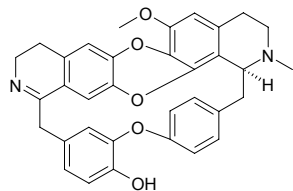
$C_{20}H_{28}O_4$  (332.44). Colorless acicular crystals (recrystallization in 30 and 50% ethanol), mp 204°C. **Pharm:** Anti-inflammatory; antipyretic; used in treatment of infectious diseases of respiratory tract and intestinal tract. **Source:** CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*] (dried aerial parts: content = 1.19%<sup>[5508]</sup>) **Ref:** 661, 5508.



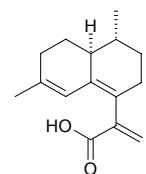
**4877 1,2-Dehydroapateline**

$C_{34}H_{30}N_2O_5$  (546.63). Yellow amorphous powder,  $[\alpha]_D^{25} = +128^\circ$  ( $c = 0.42$ , MeOH). **Pharm:** Exhibited *in vitro* anticholinesterase activities,  $IC_{50} = (116.5 \pm 2.5) \mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (0.5 \pm 0.0) \mu\text{mol/L}$ .

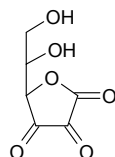
**Source:** CHUI MU FANG JI *Cocculus pendulus*. **Ref:** 4051.

**4878 6,7-Dehydroartemisinic acid**

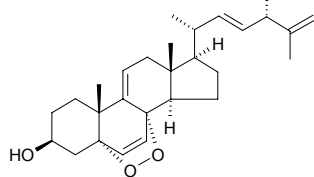
$C_{15}H_{20}O_2$  (232.33). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 2, 660.

**4879 Dehydroascorbic acid**

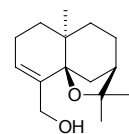
[490-83-5]  $C_6H_6O_6$  (174.11). mp  $196^\circ\text{C}$  (dec). **Source:** HUI XIANG JING YE *Foeniculum vulgare*, JIANG MANG *Cassia sophera*, MA BO *Lasiosphaera fenzlii*. **Ref:** 6.

**4880 9(11)-Dehydroaxinysterol**

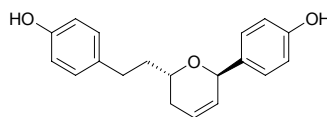
$C_{28}H_{40}O_3$  (424.63). White amorphous solid,  $[\alpha]_D^{25} = +78.9^\circ$  ( $c = 0.89$ ,  $\text{CHCl}_3$ ). **Pharm:** Cytotoxic (Breast: HBC4  $IC_{50} = 0.85 \mu\text{g/mL}$ ; BSY1  $IC_{50} = 0.60 \mu\text{g/mL}$ ; HBC5  $IC_{50} = 0.96 \mu\text{g/mL}$ ; MCF7  $IC_{50} = 0.36 \mu\text{g/mL}$ ; MDA-MB-231  $IC_{50} = 1.26 \mu\text{g/mL}$ ; Lung: NCI-H23  $IC_{50} = 0.54 \mu\text{g/mL}$ ; NCI-H226  $IC_{50} = 0.63 \mu\text{g/mL}$ ; NCI-H522  $IC_{50} = 0.57 \mu\text{g/mL}$ ; NCI-H460  $IC_{50} = 0.81 \mu\text{g/mL}$ ; A549  $IC_{50} = 0.96 \mu\text{g/mL}$ ; DMS273  $IC_{50} = 0.54 \mu\text{g/mL}$ ; DMS114  $IC_{50} = 0.48 \mu\text{g/mL}$ ; Stomach: St4  $IC_{50} = 0.69 \mu\text{g/mL}$ ; MKN1  $IC_{50} = 0.42 \mu\text{g/mL}$ ; MKN7  $IC_{50} = 0.48 \mu\text{g/mL}$ ; MKN28  $IC_{50} = 0.84 \mu\text{g/mL}$ ; MKN45  $IC_{50} = 0.54 \mu\text{g/mL}$ ; MKN74  $IC_{50} = 0.54 \mu\text{g/mL}$ ; Kidney: RXF-631L  $IC_{50} = 0.72 \mu\text{g/mL}$ ; ACHN  $IC_{50} = 0.51 \mu\text{g/mL}$ ; Colon: HCC2998  $IC_{50} = 0.57 \mu\text{g/mL}$ ; KM12  $IC_{50} = 0.60 \mu\text{g/mL}$ ; HT29  $IC_{50} = 0.57 \mu\text{g/mL}$ ; HCT15  $IC_{50} = 0.75 \mu\text{g/mL}$ ; HCT116  $IC_{50} = 0.48 \mu\text{g/mL}$ ; Ovary: OVCAR-3  $IC_{50} = 0.19 \mu\text{g/mL}$ ; OVCAR-4  $IC_{50} = 0.60 \mu\text{g/mL}$ ; OVCAR-5  $IC_{50} = 0.54 \mu\text{g/mL}$ ; OVCAR-8  $IC_{50} = 0.22 \mu\text{g/mL}$ ; SK-OV-3  $IC_{50} = 0.81 \mu\text{g/mL}$ ; CNS: U251  $IC_{50} = 0.63 \mu\text{g/mL}$ ; SF268  $IC_{50} = 1.02 \mu\text{g/mL}$ ; SF295  $IC_{50} = 0.75 \mu\text{g/mL}$ ; SF539  $IC_{50} = 0.84 \mu\text{g/mL}$ ; SNB75  $IC_{50} = 2.16 \mu\text{g/mL}$ ; SNB78  $IC_{50} = 1.17 \mu\text{g/mL}$ ; Prostate: DU145  $IC_{50} = 0.54 \mu\text{g/mL}$ ; PC3  $IC_{50} = 0.57 \mu\text{g/mL}$ ; Melanoma: LOX-IMVI  $IC_{50} = 0.60 \mu\text{g/mL}$ ). **Source:** Sponge *Axinysa* sp. **Ref:** 4231.

**4881 Dehydrobaimuxinol**

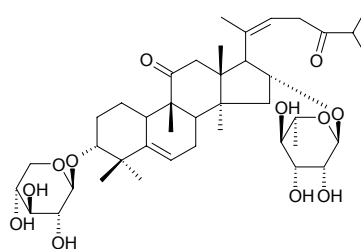
[105013-74-9]  $C_{15}H_{24}O_2$  (236.36). Colorless acicular crystals, mp  $136\text{--}138^\circ\text{C}$ ,  $[\alpha]_D^{26} = +25^\circ$  ( $c = 1.6$ , chloroform). **Source:** BAI MU XIANG *Aquilaria sinensis*. **Ref:** 13, 58.

**4882 (3S,7R)-5,6-Dehydro-1,7-bis(4-hydroxyphenyl)-4'-de-O-methylcentrolobine**

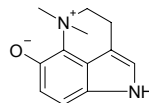
$C_{19}H_{20}O_3$  (286.37). Colorless amorphous solid,  $[\alpha]_D^{25} = -12.3^\circ$  ( $c = 0.335$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 71.2 \mu\text{mol/L}$ , control 5-FU,  $ED_{50} = 0.53 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 45.3 \mu\text{mol/L}$ , 5-FU,  $ED_{50} = 8.0 \mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000071%dw). **Ref:** 3048.

**4883 Dehydrobryogenin glycoside**

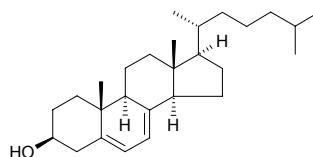
11,24-Dioxo-5,21-dien-cucuebit-3 $\alpha$ -O- $\beta$ -D-xylopyranosyl-16 $\alpha$ -O- $\alpha$ -L-rhamnopyranoside  $C_{41}H_{64}O_{12}$  (748.96). White amorphous powder,  $[\alpha]_D^{28} = 0^\circ$  ( $c = 0.176$ , MeOH). **Source:** KU XUAN SHEN *Picria feltrerae* (whole herb). **Ref:** 4853.

**4884 Dehydrobufotenine**

[17232-69-8]  $C_{12}H_{14}N_2O$  (202.26). **Source:** CHAN SU *Bufo bufo* gargarizans; *Bufo melanostictus*. **Ref:** 2.

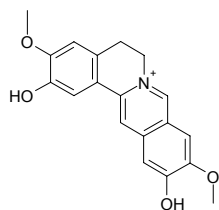
**4885 7-Dehydrocholesterol**

[434-16-2]  $C_{27}H_{44}O$  (384.65). mp  $142\text{--}143^\circ\text{C}$ ;  $150^\circ\text{C}$ . **Source:** SHUI LONG GU *Polypodium niponicum*. **Ref:** 6.

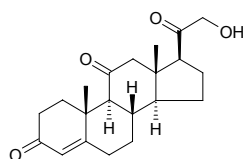


**4886 Dehydrocoreximine (perchlorate)**

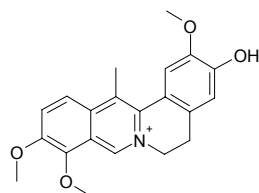
2,3,10,11-Substituted pseudoprotoberberine alkaloid  $C_{19}H_{18}NO_4^+$  (324.36). Pale yellow crystalline solid, mp 243~247°C. Source: XIAO HUA MU BAN SHU *Xylopiya parviflora* (bark and root). Ref: 3794.

**4887 11-Dehydrocorticosterone**

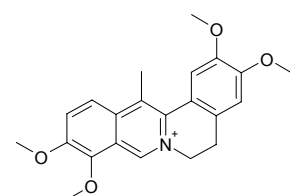
[72-23-1]  $C_{21}H_{28}O_4$  (344.45). mp 183.0~183.5°C. Source: NIU SHEN *Bos taurus domesticus*; *Bubalus bubalis*, ZI HE CHE *Homo sapiens*. Ref: 6.

**4888 Dehydrocorybulbine**

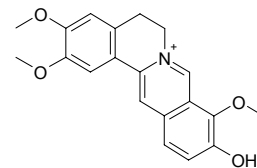
$C_{21}H_{22}NO_4^+$  (352.41). Source: YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *yanhusuo*]. Ref: 2.

**4889 Dehydrocorydaline**

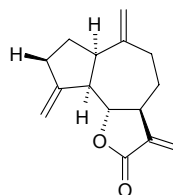
[30045-16-0]  $C_{22}H_{24}NO_4^+$  (366.44). Pharm: Antiulcerative (rat, sc, gastric ulcer); coronary vasodilator; increases coronary flow; inhibits gastric secretion; increases tolerance to anoxia (mus); used in treatment of coronary heart disease (main effective component in *Corydalis yanhusuo* YAN HU SUO). Source: CHANG JU YAN HU SUO *Corydalis longicalcarata* (rhizome: content = 0.025%<sup>[5508]</sup>), DONG BEI YAN HU SUO *Corydalis ambigua* var. *amurensis* [Syn. *Corydalis ambigua*], DUI YE YUAN HU *Corydalis ledebouriana* (rhizome: content = 0.032%<sup>[5508]</sup>), HUI LV YAN HU SUO *Corydalis adunca* (rhizome: content = 0.069%<sup>[5508]</sup>), XI SHEN SHAN ZI JIN *Corydalis pallida* var. *tenuis*, YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *yanhusuo*] (rhizome: mean content of 5 origins = 0.152%<sup>[5508]</sup>). Ref: 2, 658, 5508.

**4890 Dehydrocorydalmine**

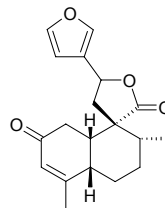
[6877-27-6]  $C_{20}H_{20}NO_4^+$  (338.39). Source: CHANG JU YAN HU SUO *Corydalis longicalcarata* (rhizome: content = 0.208%<sup>[5508]</sup>), HUI LV YAN HU SUO *Corydalis adunca* (rhizome: content = 0.122%<sup>[5508]</sup>), YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *yanhusuo*]. Ref: 6, 5508.

**4891 Dehydrocostuslactone**

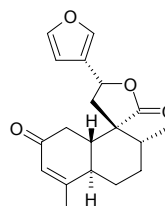
$C_{15}H_{18}O_2$  (230.31). mp 60.5°C. Pharm: Plant growth regulator; antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, MLC = 6.3μmol/L); anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; cytotoxic (*in vitro*, HepG<sub>2</sub>, CD<sub>50</sub> = 3.5μg/mL; HeLa, CD<sub>50</sub> = 3.5μg/mL; OVCAR-3, CD<sub>50</sub> = 2.5μg/mL; control Cisplatin, HepG<sub>2</sub>, CD<sub>50</sub> = 2.8μg/mL; HeLa, CD<sub>50</sub> = 5.2μg/mL; OVCAR-3, CD<sub>50</sub> = 3μg/mL; without significant antibacterial effect)<sup>[4720]</sup>. Source: CHUAN MU XIANG *Vladimiria souliei* [Syn. *Jurinea souliei*] (root: content scope of 4 origins = 0.482%~1.620%, mean content of = 1.29%<sup>[5508]</sup>), MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*] (root: mean content of 10 origins = 1.83%<sup>[5508]</sup>, yield = 0.019%<sup>[4720]</sup>), YUE GUI YE *Laurus nobilis*, YUE XI MU XIANG *Vladimiria denticulata*. Ref: 2, 6, 658, 660, 4248, 4415, 4720, 5508.

**4892 cis-Dehydrocrotonin**

$C_{19}H_{22}O_4$  (314.38). Source: GE LUN BI YA BA DOU *Croton schiedeanus*. Ref: 4552.

**4893 trans-Dehydrocrotonin**

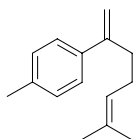
$C_{19}H_{22}O_4$  (314.38). Pharm: Antiulcerogenic<sup>[5351]</sup>; cytotoxic (HL-60 cells, MTT assay, 24h, IC<sub>50</sub> = 300μmol/L, 96h, IC<sub>50</sub> = 180μmol/L, control Myricetin, 24h, IC<sub>50</sub> = 192μmol/L; protein quantification, 24h, IC<sub>50</sub> = 500μmol/L, 96h, IC<sub>50</sub> = 150μmol/L, control Myricetin, 24h, IC<sub>50</sub> = 300μmol/L). Source: KA ZHU BA DOU *Croton cajucara*. Ref: 5351.



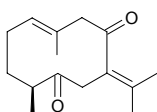


**4894 Dehydro- $\alpha$ -curcumene**

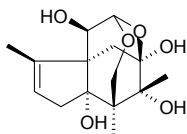
[4999-58-0] C<sub>15</sub>H<sub>20</sub> (200.33). Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platyclusus orientalis*; *Biota orientalis*]. Ref: 6.

**4895 Dehydrocurdione**

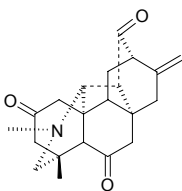
[38230-32-9] C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 $\mu$ mol/L, InRt = (12.8 $\pm$ 3.1)%, control *L*-NMMA, 100 $\mu$ mol/L, InRt = (79.2 $\pm$ 0.9)%,  $p$ <0.01)<sup>[4150]</sup>. Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*], JIANG HUANG *Curcuma longa*. Ref: 6, 640, 4150.

**4896 1,2-Dehydrocycloparvifloralone**

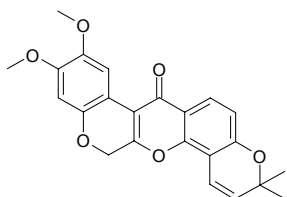
C<sub>15</sub>H<sub>22</sub>O<sub>6</sub> (298.34). Colorless amorphous powder,  $[\alpha]_D^{22} = +14^\circ$  ( $c = 1.77$ , CH<sub>3</sub>OH). Pharm: Neurotrophic bioassay inactive (primary culture of rat cortical neurons, 0.1-10 $\mu$ mol/L). Source: *Illicium merrillianum* (pericarp; yield = 0.00038%dw). Ref: 3046.

**4897 Dehydrodeacetylheterophylloidine**

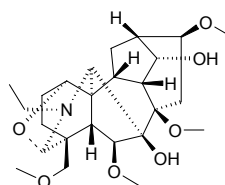
C<sub>21</sub>H<sub>25</sub>NO<sub>3</sub> (339.44). Amorphous,  $[\alpha]_D^{25} = -73.3^\circ$  ( $c = 0.17$ , CHCl<sub>3</sub>). Source: WU ZHU FEI YAN CAO *Delphinium pentagynum* (aerial parts). Ref: 3831.

**4898 Dehydrodeguelin**

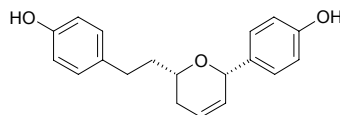
6 $\alpha$ ,12 $\alpha$ -Dehydrodeguelin [3466-23-7] C<sub>23</sub>H<sub>20</sub>O<sub>6</sub> (392.41). Straw yellow solid, mp 215~225°C. Pharm: cAMP phosphodiesterase inhibitor (rat heart, IC<sub>50</sub> = 6.2 $\mu$ mol/L); larvacide (larva of mosquito); nematocide (*in vitro*, 0.1 $\mu$ g/mL, larva of *Toxocara canis*, after 6 hours cultivation, RM = 30, after 24 hours, RM = 0). Source: MU LAN<sup>(2)</sup> *Indigofera tinctoria*, HUI YE GEN *Tephrosia purpurea*. Ref: 946, 1138, 1188.

**4899 Dehydrodeltatsine**

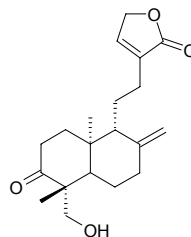
C<sub>25</sub>H<sub>39</sub>NO<sub>7</sub> (465.59). Amorphous solid,  $[\alpha]_D^{25} = +20^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>). Source: DONG FANG FEI YAN CAO *Consolida orientalis* (aerial parts). Ref: 4283.

**4900 (3*S*,7*S*)-5,6-Dehydro-4''-de-*O*-methylcentrolobine**

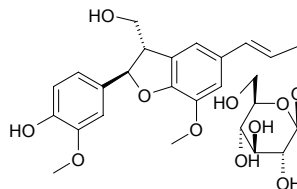
C<sub>19</sub>H<sub>20</sub>O<sub>3</sub> (286.37). Pharm: Cytotoxic (Colon26-L5, ED<sub>50</sub> > 100 $\mu$ mol/L, control 5-FU, ED<sub>50</sub> = 0.53 $\mu$ mol/L; HT1080, ED<sub>50</sub> = 79.4 $\mu$ mol/L, 5-FU, ED<sub>50</sub> = 8.0 $\mu$ mol/L). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed; yield = 0.000014%dw). Ref: 3048.

**4901 3-Dehydrodeoxyandrographolide**

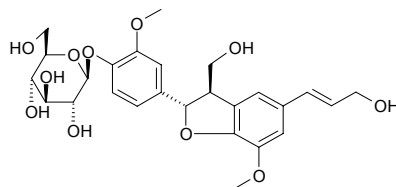
C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). Colorless lamellar crystals (MeOH), mp 140~142°C. Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*] (leaf). Ref: 4913.

**4902 (7*R*,8*S*)Dehydrodiconifery alcohol-9'-*O*- $\beta$ -*D*-glucoside**

C<sub>26</sub>H<sub>32</sub>O<sub>11</sub> (520.54). Source: GUAN HUA ROU CONG RONG *Cistanche tubulosa*. Ref: 2448.

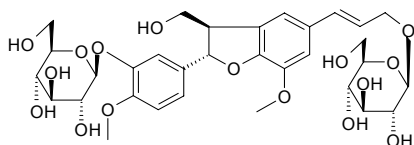
**4903 (7*S*,8*R*)Dehydrodiconifery alcohol-4-*O*- $\beta$ -*D*-glucoside**

[107870-88-2] C<sub>26</sub>H<sub>32</sub>O<sub>11</sub> (520.54). White powder,  $[\alpha]_D^{21} = -45.8^\circ$  ( $c = 0.9$ , MeOH). Source: GUAN HUA ROU CONG RONG *Cistanche tubulosa*, MAO JIAN QIU LUO *Lychnis coronaria*. Ref: 2189, 2448.

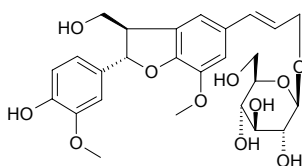


**4904 Dehydrodiconiferyl alcohol 4,γ'-di-O-β-D-glucopyranoside**

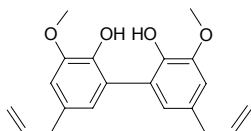
[109792-90-7] C<sub>32</sub>H<sub>42</sub>O<sub>16</sub> (682.68). Source: DU ZHONG *Eucommia ulmoides*. Ref: 2.

**4905 (7S,8R) Dehydrodiconiferyl alcohol 9'-β-glucopyranoside**

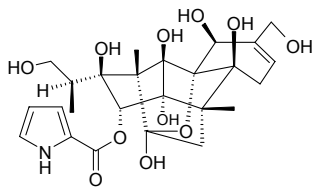
C<sub>26</sub>H<sub>32</sub>O<sub>11</sub> (520.54). Pale yellow amorphous powder, [α]<sub>D</sub><sup>15</sup> = -19.5° (c = 0.4, CHCl<sub>3</sub>). Source: SUO YANG *Cynomorium songaricum* (stem). Ref: 4114.

**4906 Dehydrodieugenol**

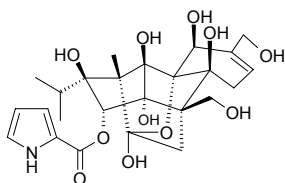
[4433-08-3] C<sub>20</sub>H<sub>22</sub>O<sub>4</sub> (326.40). Pharm: Antifungal (using extract of bark of *Litsea turfosa*). Source: NI ZHAO MU JIANG ZI *Litsea turfosa*. Ref: 658.

**4907 (13S)-8,9-Dehydro-18,21-dihydroxy-10-epi-ryanodine**

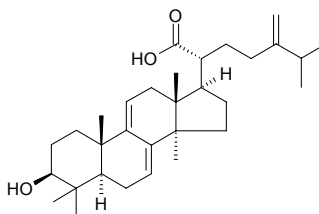
C<sub>25</sub>H<sub>33</sub>NO<sub>11</sub> (523.54). Crystals (CHCl<sub>3</sub>:MeOH = 1:1), mp 162°C, [α]<sub>D</sub> = +7° (c = 0.2). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

**4908 8,9-Dehydro-20,21-dihydroxy-10-epi-ryanodine**

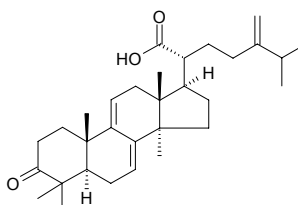
C<sub>25</sub>H<sub>33</sub>NO<sub>11</sub> (523.54). Crystals (CHCl<sub>3</sub>:MeOH = 1:1), mp 173°C, [α]<sub>D</sub> = +6° (c = 0.2). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

**4909 Dehydroeburicoic acid**

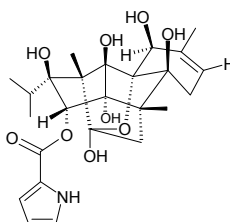
3β-Hydroxy-24-methylene-lanosta-7,9(11)-dien-21-oic acid [6879-05-6] C<sub>31</sub>H<sub>48</sub>O<sub>3</sub> (468.73). mp 286–288°C. Source: A LI HONG *Fomes officinalis*, FU LING *Poria cocos*. Ref: 6, 660.

**4910 Dehydroeburicoic acid**

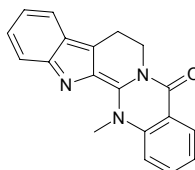
[18449-25-7] C<sub>31</sub>H<sub>46</sub>O<sub>3</sub> (466.71). mp 240–242°C. Source: A LI HONG *Fomes officinalis*. Ref: 6.

**4911 8,9-Dehydro-10-epi-ryanodine**

C<sub>25</sub>H<sub>33</sub>NO<sub>9</sub> (491.54). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 1:1), mp 165°C, [α]<sub>D</sub> = +20° (c = 0.1). Pharm: Cardiac contraction inhibitor (guinea-pig papillary muscle, causes a prolongation of the latency time and decrease of contraction force, EC<sub>50</sub> = 17nmol/L)<sup>[5139]</sup>. Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

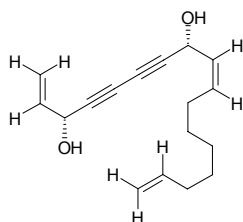
**4912 Dehydroevodiamine**

C<sub>19</sub>H<sub>15</sub>N<sub>3</sub>O (301.35). Pharm: Uterine stimulant (rat, *in vitro*); slows heart rate (anesthetic rat); antihypertensive (anesthetic rat). Source: WU ZHU YU *Evodia rutaecarpa* (dried unripe fruit). Ref: 5031, 5501.

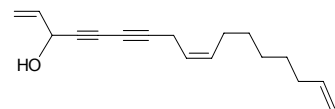


**4913 3R,8R-Dehydrofalcariindiol**

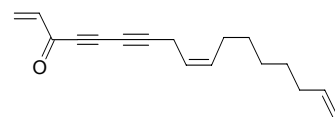
$C_{17}H_{22}O_2$  (258.36). Pale yellow oil,  $[\alpha]_D^{25} = +39.8^\circ$  ( $c = 2.66$ ,  $CHCl_3$ ). **Pharm:** 12-Lipoxygenase inhibitor inactive (10 $\mu$ g/mL, InRt = 0%; 30 $\mu$ g/mL, InRt = 0%; control Baicalein, 10 $\mu$ g/mL, InRt = 56.23%); cytotoxic (*in vitro*, MTT assay: LS174T colorectal cancer,  $IC_{50} = (14.8 \pm 7.2)\mu$ g/mL, control Doxorubicin,  $IC_{50} = (324 \pm 100)$ ng/mL; SKCO1 colorectal cancer,  $IC_{50} = (13.3 \pm 5.4)\mu$ g/mL, Doxorubicin,  $IC_{50} = (28.5 \pm 10)$ ng/mL; COLO320DM colorectal cancer,  $IC_{50} = 9.6\mu$ g/mL, Doxorubicin  $IC_{50} = (1163 \pm 168)$ ng/mL; WIDr colorectal cancer,  $IC_{50} = 10.9\mu$ g/mL; MDA231 breast cancer,  $IC_{50} = 37.6\mu$ g/mL; MCF7 breast cancer,  $IC_{50} = 5.8\mu$ g/mL). **Source:** DAN ZI HAO *Artemisia monosperma*. **Ref:** 5249.

**4914 Dehydrofalcarinol**

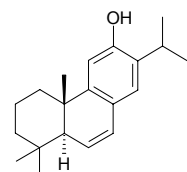
[36150-08-0]  $C_{17}H_{22}O$  (242.36). **Source:** YIN CHEN HAO *Artemisia capillaris*. **Ref:** 2.

**4915 Dehydrofalcarinone**

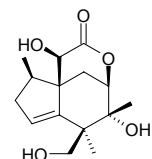
[4117-05-9]  $C_{17}H_{20}O$  (240.35). **Source:** YIN CHEN HAO *Artemisia capillaris*. **Ref:** 2.

**4916  $\Delta^6$ -Dehydroferruginol**

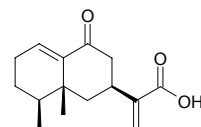
$C_{20}H_{28}O$  (284.45). **Pharm:** 12(S)-LOX inhibitor inactive (hmn Platelets, 100 $\mu$ g/mL, 12(S)-HETE Production inhibitor inactive)<sup>[4980]</sup>. **Source:** DU SONG SHI *Juniperus rigida*, OU ZHOU CI BAI *Juniperus communis* (wood). **Ref:** 6, 4980.

**4917 3,4-Dehydrofloridanolide**

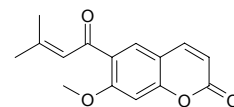
$C_{15}H_{22}O_5$  (282.34). Colorless amorphous,  $[\alpha]_D^{20} = +44^\circ$  ( $c = 1.90$ ,  $CHCl_3$ ). **Source:** *Illicium merrillianum* (pericarp). **Ref:** 5113.

**4918 Dehydroflourensic acid**

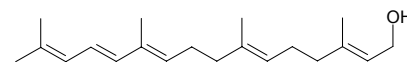
$C_{15}H_{20}O_3$  (248.32). Oil. **Pharm:** Phytotoxin (inhibits radicle growth, *Amaranthus hypochondriacus*,  $IC_{50} = 196\mu$ mol/L, control 2,4-D,  $IC_{50} = 180\mu$ mol/L; *Echinochloa crusgalli*,  $IC_{50} = 620\mu$ mol/L, control 2,4-D,  $IC_{50} = 230\mu$ mol/L); CaM interactor (cAMP phosphodiesterase inhibitor,  $IC_{50} = 23.2\mu$ mol/L, control Chlorpromazine,  $IC_{50} = 10.2\mu$ mol/L, interacted with bovine-brain calmodulin and inhibited the activation of the calmodulin-dependent enzyme cAMP phosphodiesterase). **Source:** FU CHUI FE LAO JU *Flourensia cernua*. **Ref:** 3433.

**4919 Dehydrogeijerin**

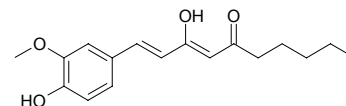
[16850-91-2]  $C_{15}H_{14}O_4$  (258.28). mp 132°C. **Source:** YAN JIAO CAO *Boenninghausenia albiflora*. **Ref:** 2495.

**4920 12,13-Dehydrogeranylgeraniol**

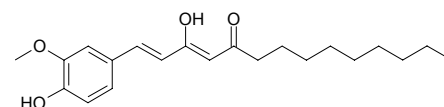
$C_{20}H_{32}O$  (288.48). Clear oil. **Pharm:** Antioxidant (HL-60, PMA-induced peroxide-catalyzed oxidation of 2',7'-dichlorodihydrofluorescein dye (DCFH) by reactive oxygen species (ROS), 5 $\mu$ g/mL (17.4 $\mu$ mol/L), InRt = 28%)<sup>[3060]</sup>. **Source:** MEI ZHOU SAN BAI CAO *Saururus cernuus* (stem and leaf), SHUANG CHA ZAO *Bifurcaria bifurcata*. **Ref:** 3060, 5146.

**4921 6-Dehydrogingerdione**

[76060-35-0]  $C_{17}H_{22}O_4$  (290.36). **Pharm:** Anti-inflammatory (prostaglandin biosynthesis inhibitor,  $IC_{50} = 2.3\mu$ mol/L); anti-diarrheal (mus, orl, 10mg/kg, inhibits 5-HT-induced diarrhea and loss of body temperature); antihepatotoxin (rat liver cells, *in vitro*, 1.0mg/mL, liver toxicosis induced by  $CCl_4$ , GPT = (70 $\pm$ 2)% of that of control,  $p < 0.001$ ); prostaglandin synthetase inhibitor ( $IC_{50} = 1.0\mu$ mol/L). **Source:** SHENG JIANG *Zingiber officinale*. **Ref:** 2, 1815, 1816, 1817, 1820.

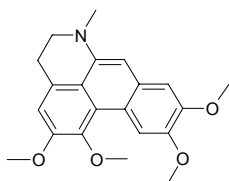
**4922 10-Dehydrogingerdione**

[82206-04-0]  $C_{21}H_{30}O_4$  (346.47). **Pharm:** Anti-inflammatory (prostaglandin biosynthesis inhibitor,  $IC_{50} = 1.0\mu$ mol/L); antihepatotoxin (rat liver cells, *in vitro*, 1.0mg/mL, liver toxicosis induced by  $CCl_4$ , GPT = (80 $\pm$ 1)% of that of control,  $p < 0.01$ ). **Source:** SHENG JIANG *Zingiber officinale*. **Ref:** 2, 1815, 1817.

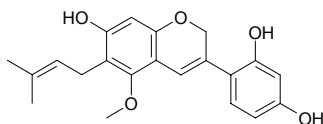


**4923 Dehydroglaucine**

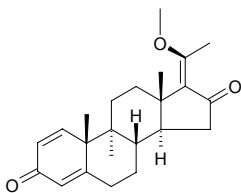
[22212-26-6] C<sub>21</sub>H<sub>23</sub>NO<sub>4</sub> (353.42). Yellow lamellar crystals, mp 121~122°C. **Pharm:** Antibacterial (*Staphylococcus aureus*, *Bacillus subtilis*, and *Mycobacterium smegmatis*, MIC = 25µg/mL); antifungal (*Candida albicans*, MIC = 25µg/mL; *Saccharomyces cerevisiae*, MIC = 50µg/mL). **Source:** BEI MEI E ZHANG QIU *Liriodendron tulipifera*, HUANG HAI YING SU *Glaucium flavum*. **Ref:** 661.

**4924 Dehydroglyasperin C**

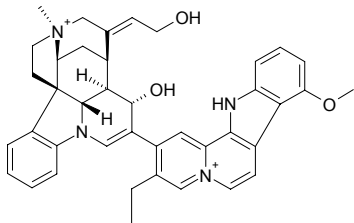
C<sub>21</sub>H<sub>22</sub>O<sub>5</sub> (354.41). **Source:** CU MAO GAN CAO *Glycyrrhiza aspera*. **Ref:** 2431.

**4925 Dehydroguggulsterone M**

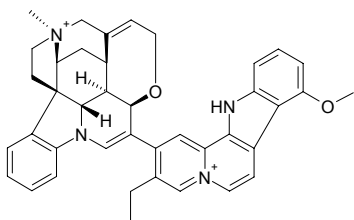
C<sub>22</sub>H<sub>28</sub>O<sub>3</sub> (340.47). Amorphous powder, [α]<sub>D</sub><sup>20</sup> = +36.5° (c = 0.76, MeOH). **Source:** A MAN SU DAN MO YAO *Commiphora wightii*. **Ref:** 2062.

**4926 5',6'-Dehydroguaiachrysin**

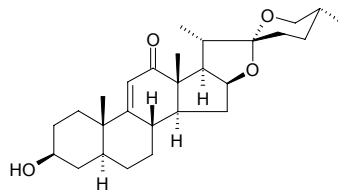
C<sub>40</sub>H<sub>42</sub>N<sub>4</sub>O<sub>3</sub><sup>+2</sup> (626.81). Orange-brown colored amorphous powder. **Pharm:** Neuromuscular toxicity (neuromuscular transmission inhibitor, IC<sub>50</sub> = 21.5µmol/L; Venezuelan calabash curare, IC<sub>50</sub> = 6.5µmol/L). **Source:** *Strychnos guianensis* (stem cortex). **Ref:** 5202.

**4927 5',6'-Dehydroguiaflavine**

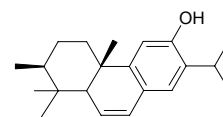
C<sub>40</sub>H<sub>40</sub>N<sub>4</sub>O<sub>2</sub><sup>+2</sup> (608.79). Orange-brown colored amorphous powder. **Pharm:** Neuromuscular toxicity (neuromuscular transmission inhibitor, IC<sub>50</sub> = 24µmol/L; Venezuelan calabash curare, IC<sub>50</sub> = 6.5µmol/L). **Source:** *Strychnos guianensis* (stem cortex). **Ref:** 5202.

**4928 9(11)-Dehydrohecogenin**

C<sub>27</sub>H<sub>40</sub>O<sub>4</sub> (428.62). mp 230~232°C. **Source:** FAN MA *Agave americana*, WU CI FAN MA *Agave americana* var. *marginata* [Syn. *Agave americana* var. *variegata*], *Agave deserti*. **Ref:** 2503.

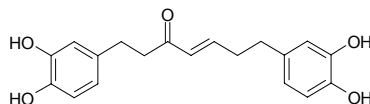
**4929 6-Dehydrohinokiol**

C<sub>21</sub>H<sub>30</sub>O (298.47). **Source:** TAI WAN SHAN *Taiwania cryptomerioides*. **Ref:** 2526.

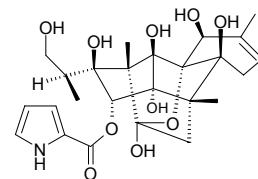
**4930 Dehydrohirsutanonol**

1,7-Di-(3',4'-dihydroxyphenyl)-4-hepten-3-one C<sub>19</sub>H<sub>20</sub>O<sub>5</sub> (328.37).

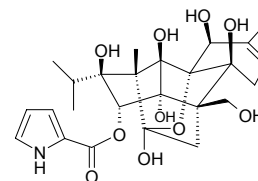
Syrupy solid. **Pharm:** Antioxidant (superoxide radical scavenger, IC<sub>50</sub> = 1.2µmol/L; DPPH scavenger, IC<sub>50</sub> = 2.4µmol/L)<sup>[4535]</sup>; cytotoxic (TK10, GI<sub>50</sub> = 6.8µg/mL, control Etoposide, GI<sub>50</sub> = 8.1µg/mL; MCF7, GI<sub>50</sub> = 1.9µg/mL, Etoposide, GI<sub>50</sub> = 0.33µg/mL; UACC62, GI<sub>50</sub> = 4.8µg/mL, Etoposide, GI<sub>50</sub> = 0.97µg/mL)<sup>[5195]</sup>. **Source:** CHI YANG *Alnus japonica* (leaf), SHI ZI XING HU JI SHENG *Viscum cruciatum* (aerial parts). **Ref:** 4535, 5195.

**4931 (13S)-8,9-Dehydro-18-hydroxy-10-epi-ryanodine**

C<sub>25</sub>H<sub>33</sub>NO<sub>10</sub> (507.54). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 3:1), mp 168°C, [α]<sub>D</sub><sup>20</sup> = +11° (c = 0.2). **Pharm:** Cardiac contraction inhibitor (guinea-pig papillary muscle, causes a prolongation of the latency time and decrease of contraction force, EC<sub>50</sub> = 1500nmol/L). **Source:** QU CHONG CAO *Spigelia anthelmia* (aerial parts). **Ref:** 5139.

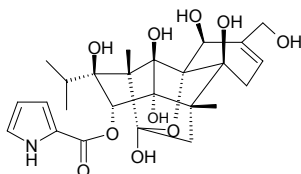
**4932 8,9-Dehydro-20-hydroxy-10-epi-ryanodine**

C<sub>25</sub>H<sub>33</sub>NO<sub>10</sub> (507.54). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 3:1), mp 148°C, [α]<sub>D</sub><sup>20</sup> = +14° (c = 0.2). **Pharm:** Cardiac contraction inhibitor (guinea-pig papillary muscle, causes a prolongation of the latency time and decrease of contraction force, EC<sub>50</sub> = 440nmol/L). **Source:** QU CHONG CAO *Spigelia anthelmia* (aerial parts). **Ref:** 5139.

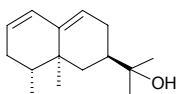


**4933 8,9-Dehydro-21-hydroxy-10-epi-ryanodine**

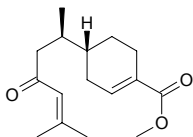
$C_{25}H_{33}NO_{10}$  (507.54). Crystals ( $CHCl_3:Me_2CO = 3:1$ ), mp 178°C,  $[\alpha]_D = +25^\circ$  ( $c = 1.0$ ). **Pharm:** Cardiac contraction inhibitor (guinea-pig papillary muscle, causes a prolongation of the latency time and decrease of contraction force,  $EC_{50} = 1900\text{nmol/L}$ )<sup>[5139]</sup>. **Source:** QU CHONG CAO *Spigelia anthelmia* (aerial parts). **Ref:** 5139.

**4934 Dehydrojinkohereol**

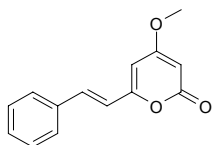
$C_{15}H_{24}O$  (220.36). **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 13.

**4935 Dehydrojuvabione**

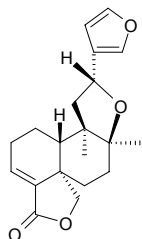
$C_{16}H_{24}O_3$  (264.37). **Pharm:** Insect juvenile hormone. **Source:** XIANG ZHI LENG SHAN *Abies balsamea*. **Ref:** 658.

**4936 5,6-Dehydrokawain**

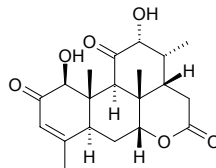
[15345-89-8]  $C_{14}H_{12}O_3$  (228.25). **Pharm:** Anticonvulsant; local anesthetic; cytotoxic inactive (Colon26-L5, HT1080, 100 $\mu\text{mol/L}$ )<sup>[3042]</sup>. **Source:** DA CAO KOU *Alpinia speciosa*, DIAO ZHANG GEN PI *Lindera umbellata* [Syn. *Lindera erythrocarpa*], KA WA HU JIAO *Piper methysticum*, YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00390%)<sup>[3042]</sup>. **Ref:** 658, 3042.

**4937 Dehydrokerlin**

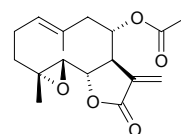
$C_{20}H_{24}O_4$  (328.41). **Source:** DUO SUI SHU WEI CAO *Salvia polystachya* (aerial parts). **Ref:** 3901.

**4938 11-Dehydroklaineone**

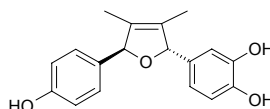
$C_{20}H_{26}O_6$  (362.43). **Pharm:** Plant growth inhibitor (Cucumber seedling, root growth,  $IC_{50} = (55.6 \pm 1.0)\mu\text{mol/L}$ , shoot growth,  $IC_{50} = (77.3 \pm 1.0)\mu\text{mol/L}$ ; Rice seedling, root growth,  $IC_{50} > 200\mu\text{mol/L}$ , shoot growth,  $IC_{50} > 200\mu\text{mol/L}$ ). **Source:** CHANG YE KUAN MU *Eurycoma longifolia* (leaf). **Ref:** 5215.

**4939 11,13-Dehydrolanuginolide**

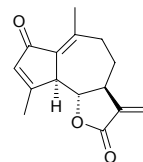
$C_{17}H_{22}O_5$  (306.36). Colorless acicular crystals (ether), mp 167°C (dec),  $[\alpha]_D = -96.5^\circ$  ( $c = 0.74$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (KB,  $ED_{50} = 1.8\mu\text{g/mL}$ ). **Source:** NAN YA HAN XIAO *Michelia doltsopa*. **Ref:** 661.

**4940 3,4-Dehydrolarreatricin**

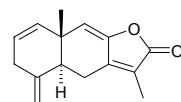
Dehydrolarreatricin  $C_{18}H_{18}O_4$  (298.34). **Pharm:** Antioxidant (Takamatsu DCFH method, myelomonocytic HL-60 cells,  $IC_{50} > 62.5\mu\text{g/mL}$ ; control NDGA,  $IC_{50} = (0.7 \pm 0.3)\mu\text{g/mL}$ , Vitamin C,  $IC_{50} = (1.9 \pm 0.7)\mu\text{g/mL}$ , Trolox,  $IC_{50} = (1.4 \pm 0.5)\mu\text{g/mL}$ )<sup>[3850]</sup>; cytotoxic (XTT assay, HL-60 cells,  $IC_{50} = (27.6 \pm 0.4)\mu\text{g/mL}$ ; control NDGA,  $IC_{50} = (2.6 \pm 0.2)\mu\text{g/mL}$ , Vitamin C,  $IC_{50} > 10.0\mu\text{g/mL}$ , Trolox,  $IC_{50} > 10.0\mu\text{g/mL}$ )<sup>[3850]</sup>. **Source:** SAN CHI LA RUI A *Larrea tridentata* (leaf). **Ref:** 1521, 3850.

**4941 Dehydroleucodin**

Mesatlantin E [36150-07-9]  $C_{15}H_{16}O_3$  (244.29). mp 131°C (diethyl ether-petroleum ether),  $[\alpha]_{589\text{nm}}^{22} = +77^\circ$ ,  $[\alpha]_{578\text{nm}}^{22} = +81^\circ$ ,  $[\alpha]_{546\text{nm}}^{22} = +92^\circ$ ,  $[\alpha]_{430\text{nm}}^{22} = +155^\circ$  ( $c = 2.5$ , chloroform). **Pharm:** Antilucerative (rat and mus, stomach/duodenum mucous membrane damage caused by EtOH); cytotoxic (KB ATCC CCL17,  $IC_{50} = 1.3\mu\text{g/mL}$ )<sup>[5399]</sup>. **Source:** YAN XIANG JU *Chrysanthemum lavandulifolium*, YI KUA *Artemisia myriantha* (aerial parts)<sup>[4618]</sup>, *Warionia saharae*. **Ref:** 900, 4618, 5399.

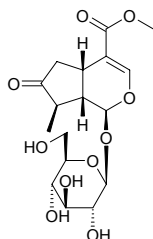
**4942 Dehydrolindestrenolide**

[32810-35-8]  $C_{15}H_{16}O_2$  (228.29). mp 111~113°C. **Source:** WU YAO *Lindera strychnifolia* [Syn. *Lindera aggregata*]. **Ref:** 6.

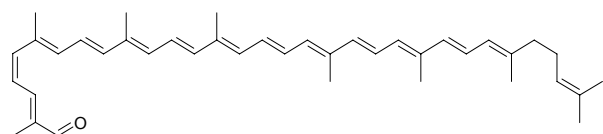


**4943 Dehydrologanin**

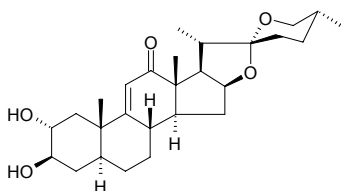
Ketologanin [152-91-0] C<sub>17</sub>H<sub>24</sub>O<sub>10</sub> (388.37). Source: CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochnera rosea*], MA QIAN ZI *Strychnos nux-vomica*, SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpium officinale*] (fruit: yield = 0.00022%dw)<sup>[9]</sup>. Ref: 2, 9, 639, 660.

**4944 3,4-Dehydrolycopen-16-al**

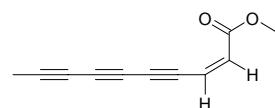
C<sub>40</sub>H<sub>52</sub>O (548.86). Source: QIAN NIAN BU LAN XIN *Solanum dulcamara*. Ref: 6.

**4945 9(11)-Dehydromanogenin**

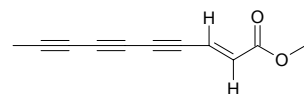
C<sub>27</sub>H<sub>40</sub>O<sub>5</sub> (444.62). mp 240°C. Source: FAN MA *Agave americana*, WU CI FAN MA *Agave americana* var. *marginata* [Syn. *Agave americana* var. *variegata*], *Agave deserti*. Ref: 2503.

**4946 Dehydromatricaria ester**

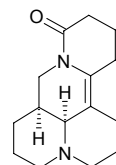
Methyl-*cis*-2-decen-4,6,8-trienoate [2739-57-3] C<sub>11</sub>H<sub>18</sub>O<sub>2</sub> (172.19). mp 114~115°C. Source: AI YE *Artemisia argyi*, QI ZHOU YI ZHI HAO *Conyza canadensis* [Syn. *Erigeron canadensis*]. Ref: 6.

**4947 trans-Dehydromatricaria ester**

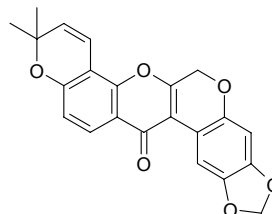
Methyl-*trans*-2-decene-4,6,8-trienoate [692-94-4] C<sub>11</sub>H<sub>18</sub>O<sub>2</sub> (172.19). mp 105°C. Source: BI MA GEN *Ricinus communis*, DA YE BAI TOU WENG *Anaphalis margaritacea*. Ref: 6.

**4948 7,11-Dehydromatrine**

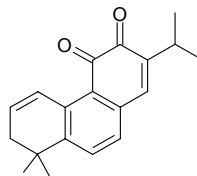
[46862-63-9] C<sub>15</sub>H<sub>22</sub>N<sub>2</sub>O (246.36). Source: KU SHEN *Sophora flavescens* [Syn. *Sophora angustifolia*]. Ref: 2.

**4949 6α,12α-Dehydromillettone**

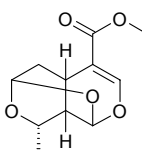
C<sub>22</sub>H<sub>16</sub>O<sub>6</sub> (376.37). Yellow crystals, mp>300°C. Pharm: Antimalarial (antiplasmodial, chloroquine-resistant W2 strain of *Plasmodium falciparum*, IC<sub>50</sub> = 33.3μmol/L, control Chloroquine, IC<sub>50</sub> = 0.094μmol/L, control Quinine, IC<sub>50</sub> = 0.209μmol/L; chloroquine-sensitive D6 strain of *Plasmodium falciparum*, IC<sub>50</sub> = 39.1μmol/L, control Chloroquine, IC<sub>50</sub> = 0.009μmol/L, control Quinine, IC<sub>50</sub> = 0.044μmol/L). Source: *Millettia usaramensis* ssp. *usaramensis*. Ref: 3454.

**4950 Dehydromiltirone**

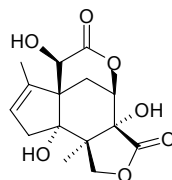
Δ<sup>1</sup>-Dehydromiltirone C<sub>19</sub>H<sub>20</sub>O<sub>2</sub> (280.37). Red acicular crystals, mp 45~46°C; red oleaginous substance. Source: HONG GEN CAO *Salvia prionitis*, DAN SHEN *Salvia miltiorrhiza*. Ref: 102, 116.

**4951 Dehydromorroniaglycone**

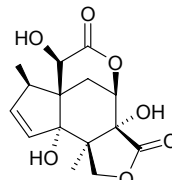
C<sub>11</sub>H<sub>14</sub>O<sub>5</sub> (226.23). White crystals, mp 119~120°C, [α]<sub>D</sub><sup>21</sup> = -47.17° (c = 0.053, EtOH). Source: SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpium officinale*] (fruit: yield = 0.00044%dw)<sup>[9]</sup>. Ref: 9, 479, 5502.

**4952 1,2-Dehydreneomajucin**

C<sub>15</sub>H<sub>18</sub>O<sub>7</sub> (310.31). Amorphous solid, [α]<sub>D</sub><sup>20</sup> = -7.8° (c = 0.16, EtOH). Source: JIA DI FENG PI *Illicium jiadifengpi* (pericarp: yield = 0.00013%dw). Ref: 4621.

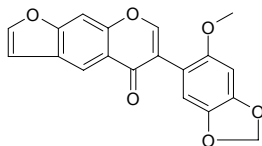
**4953 2,3-Dehydreneomajucin**

C<sub>15</sub>H<sub>18</sub>O<sub>7</sub> (310.31). Source: JIA DI FENG PI *Illicium jiadifengpi* (pericarp). Ref: 4621.

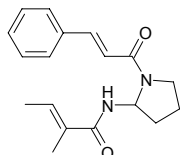


**4954 Dehydroneotene**

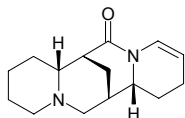
$C_{19}H_{12}O_6$  (336.30). Source: DI GUA ZI *Pachyrhizus erosus*. Ref: 4180.

**4955 Dehydrodorine**

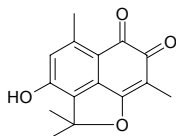
$C_{18}H_{22}N_2O_2$  (298.39). Source: DA YE SHU LAN *Aglaia elliptifolia* (leaf): yield = 0.00104%dw. Ref: 3031.

**4956 (+)-2,3-Dehydro-10-oxo- $\alpha$ -isoparteine**

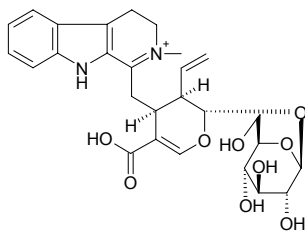
$C_{15}H_{22}N_2O$  (246.36). Colorless needles, mp 98~103°,  $[\alpha]_D^{26} = +132^\circ$  ( $c = 0.6$ , EtOH). Source: FA GUO JIN QUE ER *Cytisus monspessulanus*. Ref: 1943.

**4957 Dehydrooxoperezinone**

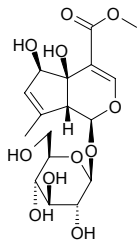
$C_{15}H_{14}O_4$  (258.28). Orange needles ( $CHCl_3/CH_3OH$ ), mp > 280°C. Pharm: Anti-HIV (*in vitro*, acutely infected H-9 lymphocyte cells,  $IC_{50} = 25.1\mu g/mL$ ,  $EC_{50} = 17.5\mu g/mL$ ,  $TI = 1.43$ ); cytotoxic inactive (*in vitro*, MCF7 and A549). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem): yield = 0.00069%. Ref: 4706.

**4958 3,4-Dehydropalicoside**

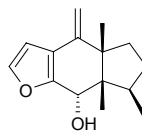
$C_{27}H_{33}N_2O_9^+$  (529.57). Amorphous powder,  $[\alpha]_D^{25} = -27^\circ$  ( $c = 0.175$ , MeOH). Source: *Strychnos vanprukii* (stem). Ref: 3471.

**4959 7,8-Dehydropenstemoside**

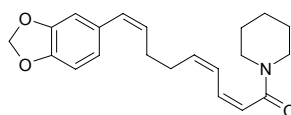
$C_{17}H_{24}O_{11}$  (404.37). Colorless powder, mp 119~120°C. Source: DU YI WEI *Lamiophlomis rotata* [Syn. *Phlomis rotata*]. Ref: 381.

**4960 Dehydropinguisenol**

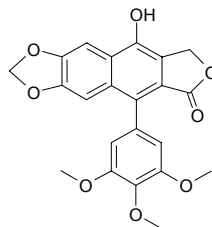
$C_{15}H_{20}O_2$  (232.33). Source: YE TAI *Trocholejeunea sandvicensis*. Ref: 3909.

**4961 Dehydropiperonaline**

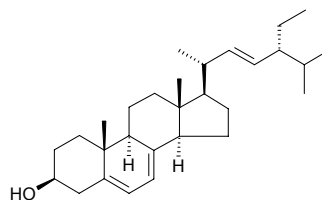
$C_{21}H_{25}NO_3$  (339.44). Colorless crystals. Pharm: Protective gastric lesions (rat, ethanol-induced, 25mg/kg orl, length = (50.6±14.2)mm, control, length = (118.6±16.2)mm, InRt = 57.3%; indomethacin-induced in rats, dose, 25mg/kg orl, length = (34.1±11.0)mm, control, length = (89.5±9.8)mm, InRt = 61.9%). Source: *Piper chaba* (fruit). Ref: 4935.

**4962 Dehydropodophyllotoxin**

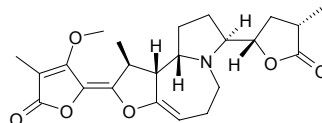
$C_{22}H_{18}O_8$  (410.38). mp 275~276°C. Source: GUI JIU *Dysosma versipellis* [Syn. *Podophyllum versipelle*], LIU JIAO LIAN *Dysosma pleiantha* [Syn. *Podophyllum pleianthum*] (rhizome: content = 0.019%)<sup>[5508]</sup>, SHAN HE YE *Diphylleia grayi*, TAO ER QI *Podophyllum emodii* [Syn. *Podophyllum emodii* var. *chinense*; *Podophyllum sikkimensis*; *Sinopodophyllum emodii*] (rhizome: mean content of 2 origins = 0.037%)<sup>[5508]</sup>, WO ER QI *Diphylleia sinensis* (rhizome: mean content of 4 origins = 0.072%)<sup>[5508]</sup>. Ref: 6, 279, 5508.

**4963 7-Dehydroporiferasterol**

Corbisterol [19432-13-4]  $C_{29}H_{46}O$  (410.69). Pharm: Anti-inflammatory (inflammation caused by TPA in mus, 1mg/ear, InRt = 85%,  $ID_{50} = 0.5mg/ear$ ). Source: YAN CAO *Nicotiana tabacum*. Ref: 900.

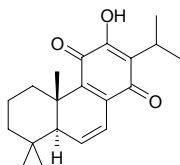
**4964 Dehydroprotostemonine**

$C_{23}H_{29}NO_6$  (415.49). Amorphous,  $[\alpha]_D^{20} = +72^\circ$  ( $c = 0.3$ , MeOH). Pharm: Insecticidal (neonate larvae of *Spodoptera littoralis*,  $LC_{50} = 6.1mg/L$ ,  $EC_{50} = 0.8mg/L$ ). Source: DI TANG BAI BU *Stemona kerrii*, *Stemona curtisii*. Ref: 3409.

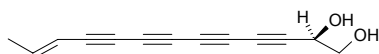


**4965 6,7-Dehydroroyleanone**

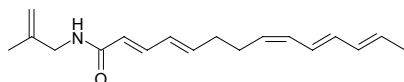
$C_{20}H_{26}O_3$  (314.43). Red crystals, mp 160~164°C. Source: XIU QIU SHU WEI CAO *Salvia hydrangea* (root). Ref: 5447.

**4966 Dehydrosafynol**

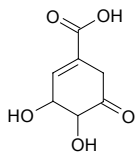
$C_{13}H_{10}O_2$  (198.22). Pharm: Plant antitoxin. Source: HONG HUA *Carthamus tinctorius*. Ref: 658.

**4967 Dehydro-γ-sanshool**

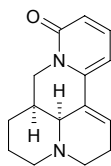
$C_{18}H_{25}NO$  (271.41). Pharm: Anti-PAF. Source: *Zanthoxylum* sp. Ref: 2176.

**4968 Dehydroshikimic acid**

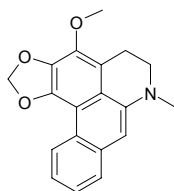
$C_7H_8O_5$  (172.14). mp 150~152°C; 201~202°C. Source: HE ZI *Terminalia chebula*, HE ZI YE *Terminalia chebula*. Ref: 6.

**4969 Δ<sup>7</sup>-Dehydrosophoramine**

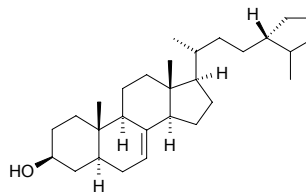
[67767-18-4]  $C_{15}H_{18}N_2O$  (242.32). Source: HUANG BAI *Phellodendron amurense*. Ref: 2.

**4970 Dehydrostephalagine**

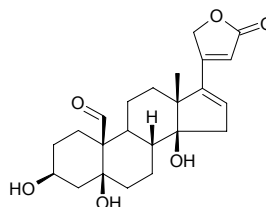
$C_{19}H_{17}NO_3$  (307.35). Pharm: Cytotoxic inactive (yeast assay: RS321NYCp50(gal), RS321NpRAD52(gal), RS321NpRAD52(glu)). Source: DING KE LA QIAN JIN TENG *Stephania dinklagei* (stem). Ref: 5457.

**4971 7-Dehydrostigmasterol**

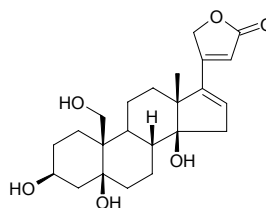
$C_{29}H_{50}O$  (414.72). Source: HUANG BAI *Phellodendron amurense*. Ref: 2.

**4972 16-Dehydrostrophanthidin**

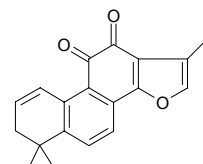
$C_{23}H_{30}O_6$  (402.49). mp 226°C; 253~262°C,  $[\alpha]_D = +82.3^\circ$ . Source: HEI GANG LIU *Periploca nigrescens*. Ref: 1521, 2498.

**4973 16-Dehydrostrophanthidol**

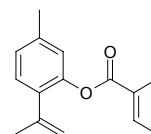
$C_{23}H_{32}O_6$  (404.51). mp 242~247°C,  $[\alpha]_D = 68.9^\circ$ . Source: HEI GANG LIU *Periploca nigrescens*. Ref: 1521, 2498.

**4974 Δ<sup>1</sup>-Dehydrotanshinone**

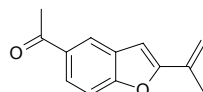
$C_{19}H_{16}O_3$  (292.34). Dark red acicular crystals, mp 147~148°C. Source: DAN SHEN *Salvia miltiorrhiza*. Ref: 116.

**4975 8,9-Dehydrothymol 3-O-tiglate**

$C_{15}H_{18}O_2$  (230.31). Source: PEI LAN *Eupatorium fortunei* (aerial parts). Ref: 3077.

**4976 Dehydrotremetone**

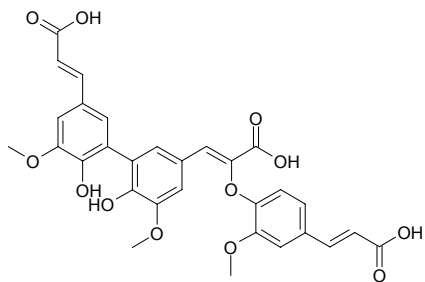
[3015-20-1]  $C_{13}H_{12}O_2$  (200.24). Pharm: Antibacterial; fish toxin (goldfish). Source: QIAN MA YE ZE LAN *Eupatorium urticaefolium*. Ref: 658.



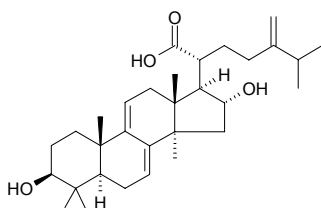


**4977 4-O-8',5'-5''-Dehydrotriferulic acid**

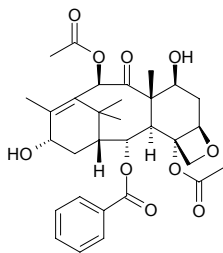
$C_{30}H_{26}O_{12}$  (578.53). Source: YU MI FU *Zea mays* (bran). Ref: 3420.

**4978 Dehydrotumulolic acid**

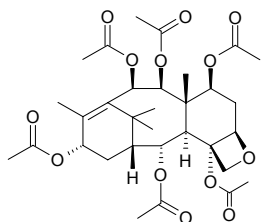
$C_{31}H_{48}O_4$  (484.73). Pharm: Antineoplastic (EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = 0% (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 70%; reference compound  $\beta$ -Carotene, relative percentage = 8.6%). Source: FU LING *Poria cocos* (sclerotium: yield = 0.00084%dw). Ref: 4616.

**4979 1-Dehydroxybaccatin III**

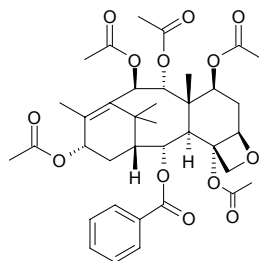
$C_{31}H_{38}O_{10}$  (570.64). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 662.

**4980 1 $\beta$ -Dehydroxybaccatin IV**

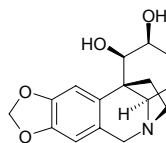
$C_{32}H_{44}O_{13}$  (636.70). Colorless prisms,  $[\alpha]_D = +5^\circ$  ( $CHCl_3$ ), mp 286°C, mp 259–260°C,  $[\alpha]_D = +99^\circ$  ( $CHCl_3$ ). Pharm: NO production inhibitor ( $IC_{50} = 32.2\mu mol/L$ , control *L*-NMMA,  $IC_{50} = 28.5\mu mol/L$ )<sup>[5407]</sup>. Source: HONG DOU SHAN *Taxus chinensis*, JIE ZHI HONG DOU SHAN *Taxus media*, YUN NAN HONG DOU SHAN *Taxus yunnanensis* (wood). Ref: 662, 2488, 5407.

**4981 1 $\beta$ -Dehydroxybaccatin VI**

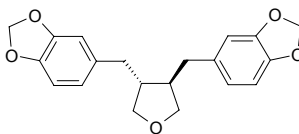
$C_{37}H_{46}O_{13}$  (698.77). Colorless crystals, mp 220–221°C,  $[\alpha]_D = -21.2^\circ$  ( $CHCl_3$ ). Source: JIE ZHI HONG DOU SHAN *Taxus media*, MEI LI HONG DOU SHAN *Taxus mairei*. Ref: 139, 662.

**4982 4 $\alpha$ -Dehydroxycrinamabine**

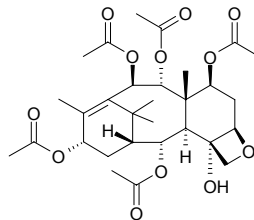
$C_{16}H_{19}NO_4$  (289.33). Pharm: Antitrypanosomal (*Trypanosoma brucei rhodesiense* strain STIB-900, stage trypomastigotes,  $IC_{50} = 11.07\mu g/mL$ ); antimalarial inactive (*Plasmodium falciparum* strain NF-54, stage IEF). Source: GUAN MU WEN SHU LAN *Crinum macowanii* (bulb). Ref: 4000.

**4983 Dehydroxycubebin**

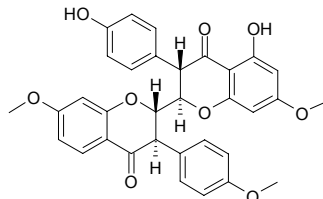
$C_{20}H_{30}O_5$  (340.38). Source: QIANG DAO YAO *Hypoestes purpurea* [Syn. *Justicia purpurea*; *Hypoestes sinica*] (aerial parts: yield = 0.000034%dw). Ref: 4783.

**4984 1 $\beta$ -Dehydroxy-4 $\alpha$ -deacetylbaaccatin IV**

$C_{30}H_{42}O_{12}$  (594.66). Source: MEI LI HONG DOU SHAN *Taxus mairei*. Ref: 662.

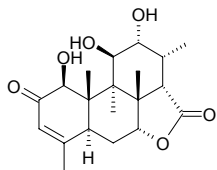
**4985 Dehydroxyhexaspermone C**

*rel*-4',7-Dimethoxy-4-oxo-2,3-*trans*-isoflavanyl-(2→2'')-4'',5''-dihydroxy-7''-methoxy-2'',3''-*trans*-isoflavanone  $C_{33}H_{28}O_9$  (568.59). White or colorless solid, mp 133–135°C,  $[\alpha]_D^{23.7} = -117.0^\circ$  ( $c = 0.05$ , MeOH). Pharm: Antibacterial inactive (MDR *Staphylococcus aureus*: RN4220 strain, 64 $\mu g/mL$ , control Erythromycin, MIC = 128 $\mu g/mL$ ; XU212 strain, 64 $\mu g/mL$ , control Tetracycline, MIC = 128 $\mu g/mL$ ; SA-1199-B strain, 64 $\mu g/mL$ , control Norfloxacin, MIC = 32 $\mu g/mL$ ). Source: CHANG E JIN LIAN MU PI *Ochna macrocalyx*. Ref: 5372.

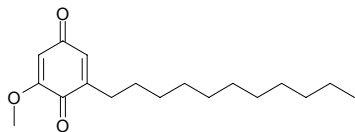


**4986 6-Dehydroxylongilactone**

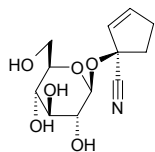
6-Dehydroxylongilactone  $C_{19}H_{26}O_6$  (350.42). **Pharm:** Cytotoxic (P<sub>388</sub>, IC<sub>50</sub> = 0.66 μg/mL, A549 cells, remarkable activity, MCF7 cells, IC<sub>50</sub> < 2.5 μg/mL)<sup>[4556]</sup>; plant growth inhibitor (Cucumber seedling, root growth, IC<sub>50</sub> = (25.7±0.5) μmol/L, shoot growth, IC<sub>50</sub> = (48.6±0.5) μmol/L; Rice seedling, root growth, IC<sub>50</sub> > 200 μmol/L, shoot growth, IC<sub>50</sub> > 200 μmol/L)<sup>[5215]</sup>. **Source:** CHANG YE KUAN MU *Eurycoma longifolia* (leaf), *Eurycoma* sp. **Ref:** 4556, 5215.

**4987 2-Dehydroxy-5-O-methylembelin**

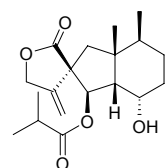
$C_{18}H_{28}O_3$  (292.42). **Pharm:** Cytotoxic inactive (*in vitro*, HL-60, IC<sub>50</sub> > 100 μg/mL; Bel7402, IC<sub>50</sub> > 100 μg/mL; HeLa, IC<sub>50</sub> > 100 μg/mL; U937, IC<sub>50</sub> > 100 μg/mL; control Colchicine, HL-60, IC<sub>50</sub> = 1.6 μg/mL; Bel7402, IC<sub>50</sub> = 0.4 μg/mL; HeLa, IC<sub>50</sub> = 0.1 μg/mL; U937, IC<sub>50</sub> = 0.1 μg/mL)<sup>[4746]</sup>. **Source:** LA ZHU GUO *Aegiceras corniculatum* (stem and twig: yield = 0.00005%). **Ref:** 4746.

**4988 Deidaclin**

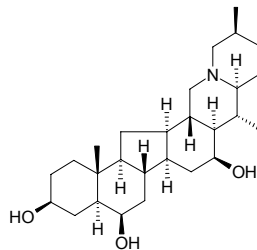
$C_{12}H_{17}NO_6$  (198.22). **Pharm:** Toxin. **Source:** GE YANG XI FAN LIAN *Passiflora coriacea*. **Ref:** 658.

**4989 Deisobutyryl bakkenolide H**

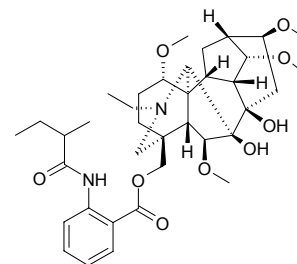
$C_{19}H_{28}O_5$  (336.45). Colorless needles (MeOH), mp 178–180°C,  $[\alpha]_D^{20} = -93.0^\circ$  ( $c = 0.365$ , MeOH). **Pharm:** Platelet aggregation inhibitor (100 μmol/L AA-induced, 100 μg/mL, InRt = (91.7±6.8)%),  $p < 0.001$ , control Aspirin, 50 μg/mL, InRt = (100±0.0)%; 10 μg/mL collagen-induced, 100 μg/mL, InRt = (85.5±13.0)%),  $p < 0.001$ , Aspirin, 50 μg/mL, InRt = (12.2±1.7)%; 2 nmol/L PAF-induced, 100 μg/mL, InRt = (21.0±1.7)%),  $p < 0.001$ , Aspirin, 50 μg/mL, InRt = (9.6±1.2)%; 0.1 μg/mL thrombin-induced, 100 μg/mL, InRt = (-1.1±1.1)%). **Source:** TAI WAN FENG DOU CAI *Petasites formosanus*. **Ref:** 2377.

**4990 Delafrine**

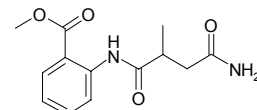
$C_{27}H_{45}NO_3$  (431.66). **Source:** XI BEI MU *Fritillaria imperialis* (bulb). **Ref:** 4217.

**4991 Delajacine**

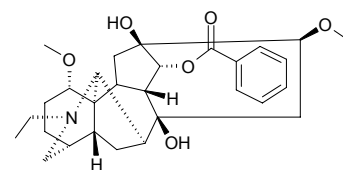
$C_{37}H_{54}N_2O_9$  (670.85). White amorphous powder. **Source:** QIN LING CUI QUE HUA *Delphinium giraldii*. **Ref:** 2506.

**4992 Delamide**

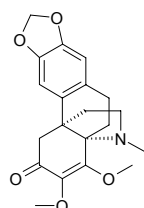
$C_{13}H_{16}N_2O_4$  (274.28). **Source:** FU ZI *Aconitum carmichaeli*. **Ref:** 16.

**4993 Delavaconitine**

[1356-52-1]  $C_{29}H_{39}NO_6$  (497.64). mp 59–64°C,  $[\alpha]_D^{17} = -9.56^\circ$ ; nitrate: mp 154°C; perchlorate: mp 241°C; picrolonate: mp 241°C; chloraurate: mp 215°C. **Pharm:** Analgesic; local anesthetic; LD (rbt, iv) = 5–10 mg/kg, (dog, iv) = 10–12 mg/kg; LD<sub>50</sub> (mus, sc) = 106 mg/kg, (mus, iv) = 28 mg/kg. **Source:** MA ER SHAN WU TOU *Aconitum delavayi*. **Ref:** 661.

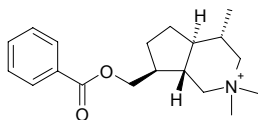
**4994 Delavaine**

[27989-72-6]  $C_{20}H_{23}NO_5$  (357.41). mp 140–150°C. **Source:** DI BU RONG *Stephania delavayi* [Syn. *Stephania epigaea*]. **Ref:** 1521.

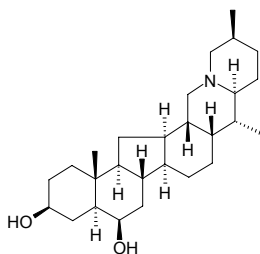


**4995 Delavayine A**

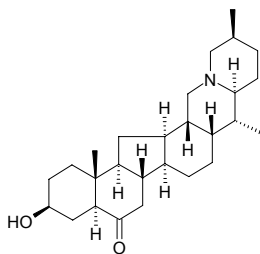
$C_{19}H_{28}NO_2$  (302.44). Yellow powder,  $[\alpha]_D^{22} = -5.1^\circ$  ( $c = 0.90$ ,  $C_5H_5N$ ). **Pharm:** Antinociceptive (acetic acid-induced, 50mg/kg, sc, inhibitive percent = 45%; control Aminopyrine, 50mg/kg, orl, inhibitive percent = 87%, 50mg/kg, sc, inhibitive percent = 94%). **Source:** MA TONG HUA *Incarvillea arguta*. **Ref:** 3908.

**4996 Delavine**

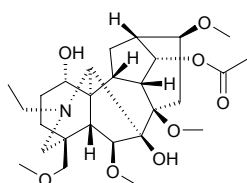
[98243-57-3]  $C_{27}H_{45}NO_2$  (415.67). Colorless needles (EtOH), mp 179~182°C (dec),  $[\alpha]_D^{25} = -17.2^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). **Pharm:** cAMP phosphodiesterase inhibitor ( $IC_{50} = 88\mu\text{mol/L}$ ); AChE inhibitor ( $IC_{50} = (105.5 \pm 1.5)\mu\text{mol/L}$ , control Eserine,  $IC_{50} = (0.41 \pm 0.01)\mu\text{mol/L}$ )<sup>[4217]</sup>, butyrylcholinesterase (BChE) inhibitor ( $IC_{50} = (1.71 \pm 0.11)\mu\text{mol/L}$ , control Eserine,  $IC_{50} = (0.857 \pm 0.008)\mu\text{mol/L}$ )<sup>[4217]</sup>. **Source:** LENG SHA BEI MU *Fritillaria delavayi*, XI BEI MU *Fritillaria imperialis* (bulb). **Ref:** 2, 660, 1755, 4217.

**4997 Delavinone**

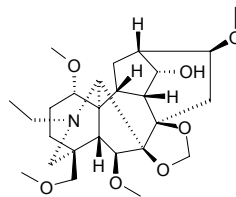
[96997-98-7]  $C_{27}H_{43}NO_2$  (413.65). **Source:** LENG SHA BEI MU *Fritillaria delavayi*, GAN SU BEI MU *Fritillaria przewalskii*. **Ref:** 2, 660.

**4998 Delbonine**

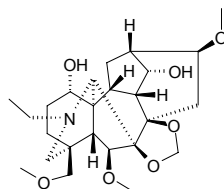
[95066-33-4]  $C_{27}H_{43}NO_8$  (509.65). Amorphous solid,  $[\alpha]_D^{25} = +35.3^\circ$  ( $c = 0.8$ ,  $CHCl_3$ ). **Source:** CHUAN QIAN CUI QUE HUA *Delphinium bonvalotii*, DONG FANG FEI YAN CAO *Consolida orientalis* (aerial parts). **Ref:** 1521, 4283.

**4999 Delbruline**

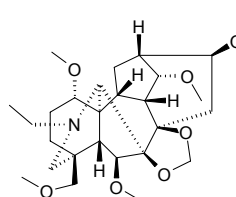
[106982-82-5]  $C_{26}H_{41}NO_7$  (479.62). **Source:** FU ZI *Aconitum carmichaeli*. **Ref:** 16.

**5000 Delbrunine**

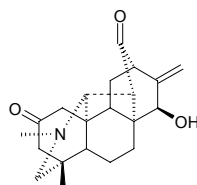
[106982-83-6]  $C_{25}H_{39}NO_7$  (465.59). **Source:** FU ZI *Aconitum carmichaeli*. **Ref:** 16.

**5001 Delbrusine**

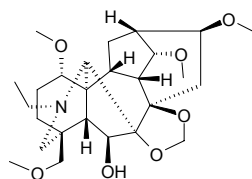
[76971-31-8]  $C_{27}H_{43}NO_7$  (493.65). **Source:** FU ZI *Aconitum carmichaeli*. **Ref:** 16.

**5002 Delcarduchol**

$C_{21}H_{27}NO_3$  (341.45). **Source:** *Delphinium carduchorum*. **Ref:** 2288.

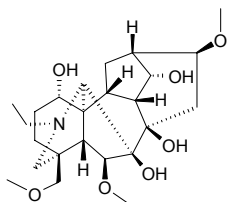
**5003 Delcorine**

[52358-55-1]  $C_{26}H_{41}NO_7$  (479.62). **Pharm:** Inhibits intestinal contraction (rat and rbt, *in vitro*); inhibits respiration; uterine relaxant (gpg); antihypertensive. **Source:** GUANG FEI YAN CAO *Delphinium corumbosum*. **Ref:** 658.

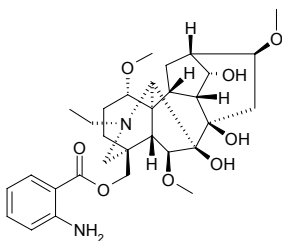


**5004 Delcosine**

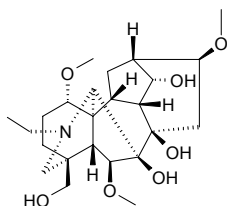
Delphamine [545-56-2]  $C_{24}H_{39}NO_7$  (453.58). mp 203~204°C. **Pharm:** Antihypertensive (anesthetic, cat, 10mg/kg); toxin (poikilotherms). **Source:** FEI YAN CAO *Consolida ajacis* [Syn. *Delphinium ajacis*], QIANG GU FEI YAN CAO *Delphinium consolida*, XIAO CAO WU *Delphinium yunnanense*. **Ref:** 6, 16, 658.

**5005 Delectine**

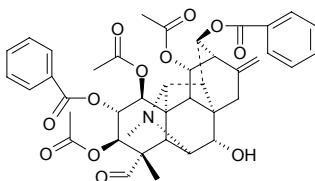
[58485-71-5]  $C_{31}H_{44}N_2O_8$  (572.70). White amorphous powder. **Source:** E MEI CUI QUE HUA *Delphinium omeiense*. **Ref:** 2190.

**5006 Delectinine**

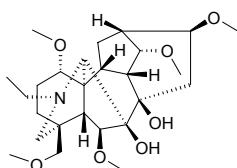
[58480-82-3]  $C_{24}H_{39}NO_7$  (453.58). White amorphous powder. **Source:** E MEI CUI QUE HUA *Delphinium omeiense*. **Ref:** 2190.

**5007 Delgrandine**

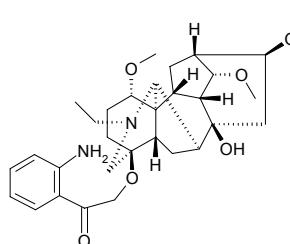
$C_{41}H_{43}NO_{12}$  (741.80). **Source:** FU ZI *Aconitum carmichaeli*. **Ref:** 16.

**5008 Delphatine**

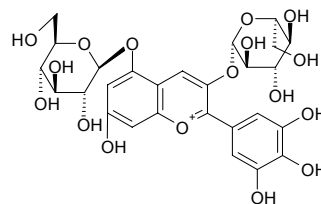
[25488-62-4]  $C_{26}H_{43}NO_7$  (481.64). **Pharm:** Anti-inflammatory (modified assay of Berridge, 100µg/mL, InRt = 17.39%<sup>[5271]</sup>); tyrosinase inhibitor inactive (control Kojic acid,  $IC_{50}$  = (16.67±0.52)µmol/L, *L*-Mimosine,  $IC_{50}$  = (3.68±0.02)µmol/L<sup>[5271]</sup>); antioxidant (DPPH scavenger, 1µmol/L, ScRt = 55.4%; control 3-*t*-Butyl-4-hydroxyanisole, 1µmol/L, ScRt = 92.5%<sup>[5271]</sup>). **Source:** FU ZI *Aconitum carmichaeli*, *Aconitum leave* (aerial parts). **Ref:** 16, 5271.

**5009 Delphicrispuline**

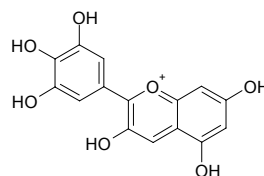
Neofinaconitine  $C_{30}H_{42}N_2O_6$  (526.68).  $[\alpha]_D^{20} = +23.8^\circ$  ( $c = 0.8$ ,  $CHCl_3$ ) **Source:** GAN WAN WU TOU *Aconitum finetianum*, TU ER QI CUI QUE HUA *Delphinium crispulum*. **Ref:** 1913, 2690.

**5010 Delphin**

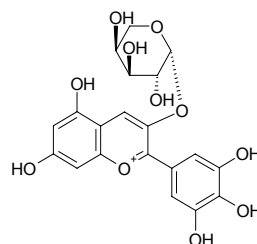
Delphinidin-3,5-diglucoside [17670-06-3]  $C_{27}H_{31}O_{17}^+$  (627.54). **Source:** BAI FAN DOU *Phaseolus vulgaris*, FEI YAN CAO *Consolida ajacis* [Syn. *Delphinium ajacis*], MU XU *Medicago sativa*, QIE ZI *Solanum melongena*, YA ZHI CAO *Commelina communis*. **Ref:** 6.

**5011 Delphinidin**

Delphinidol  $C_{15}H_{11}O_7^+$  (303.25). **Pharm:** Pigment; leukocyte elastase MMP-2/9 inhibitor<sup>[4416]</sup>. **Source:** BU XUE CAO *Limonium gmelinii*, FENG XIAN HUA *Impatiens balsamina*, PU<sup>(3)</sup> TAO *Syzygium jambos*, TAO ER QI *Podophyllum emodii* [Syn. *Podophyllum emodii* var. *chinense*; *Podophyllum sikkimensis*; *Sinopodophyllum emodii*]. **Ref:** 6, 658, 4416.

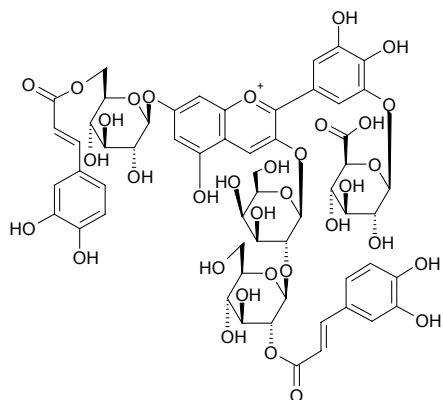
**5012 Delphinidin-3-arabinoside**

[28500-01-8]  $C_{20}H_{19}O_{11}^+$  (435.37). **Source:** ZI WEI HUA *Lagerstroemia indica*. **Ref:** 6.



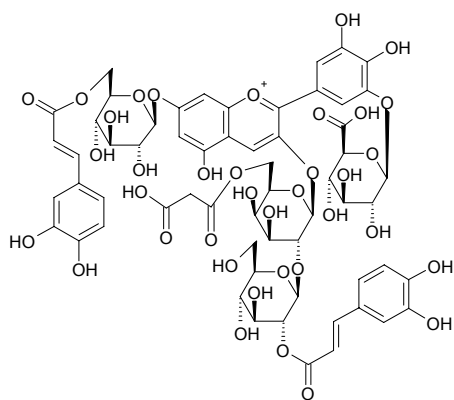
**5013 Delphinidin-3-O-[2-O-(2-O-(trans-caffeoyl)-β-D-glucopyranosyl)-β-D-galactopyranoside]-7-O-[6-O-(trans-caffeoyl)-β-D-glucopyranoside]-3'-O-[β-D-glucuronopyranoside]**

C<sub>57</sub>H<sub>61</sub>O<sub>34</sub><sup>+</sup> (1290.10). Source: HUA GUAN YIN LIAN HUA *Anemone coronaria*. Ref: 1956.



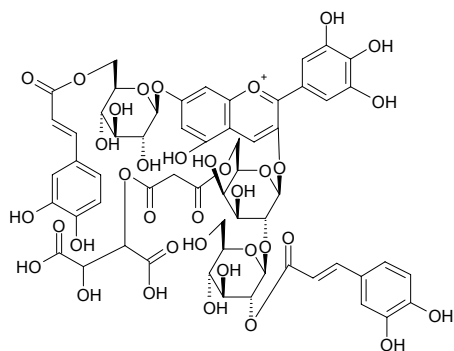
**5014 Delphinidin-3-O-[2-O-(2-O-(trans-caffeoyl)-β-D-glucopyranosyl)-6-O-(malonyl)-β-D-galactopyranoside]-7-O-[6-O-(trans-caffeoyl)-β-D-glucopyranoside]-3'-O-[β-D-glucuronopyranoside]**

C<sub>60</sub>H<sub>63</sub>O<sub>37</sub><sup>+</sup> (1376.15). Source: HUA GUAN YIN LIAN HUA *Anemone coronaria*. Ref: 1956.



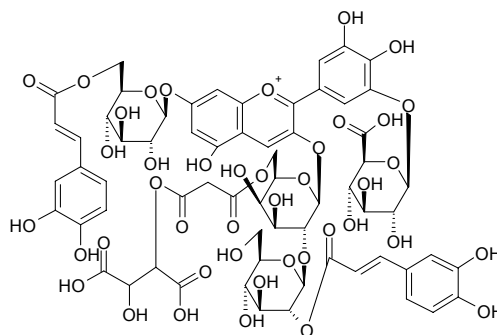
**5015 Delphinidin-3-O-[2-O-(2-O-(trans-caffeoyl)-β-D-glucopyranosyl)-6-O-(2-O-(tartaryl)malonyl)-β-D-galactopyranoside]-7-O-[6-O-(trans-caffeoyl)-β-D-glucopyranoside]**

C<sub>58</sub>H<sub>59</sub>O<sub>36</sub><sup>+</sup> (1332.10). Source: HUA GUAN YIN LIAN HUA *Anemone coronaria*. Ref: 1956.



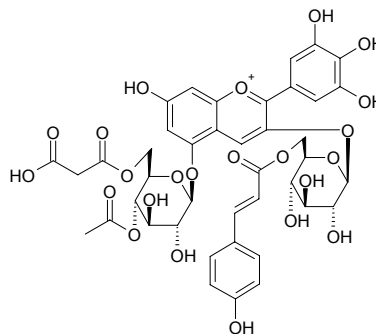
**5016 Delphinidin-3-O-[2-O-(2-O-(trans-caffeoyl)-β-D-glucopyranosyl)-6-O-(2-O-(tartaryl)malonyl)-β-D-galactopyranoside]-7-O-[6-O-(trans-caffeoyl)-β-D-glucopyranoside]-3'-O-[β-D-glucuronopyranoside]**

C<sub>64</sub>H<sub>67</sub>O<sub>42</sub><sup>+</sup> (1508.22). Source: HUA GUAN YIN LIAN HUA *Anemone coronaria*. Ref: 1956.



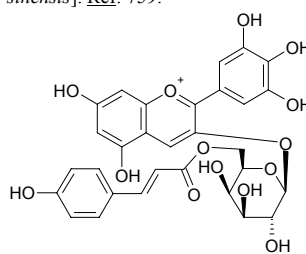
**5017 Delphinidin-3-O-[6-O-(p-coumaroyl)-β-D-glucopyranoside]-5-O-[4-O-acetyl-6-O-malonyl-β-D-glucopyranoside]**

C<sub>41</sub>H<sub>41</sub>O<sub>23</sub><sup>+</sup> (901.77). Source: *Salvia uliginosa*. Ref: 2367.



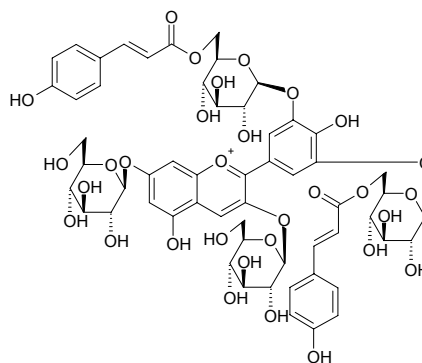
**5018 Delphinidin-3-O-β-D-(6-(E)-p-coumaroyl) galactopyranoside**

C<sub>30</sub>H<sub>27</sub>O<sub>14</sub><sup>+</sup> (611.54). Source: CHA YE *Camellia sinensis* [Syn. *Thea sinensis*]. Ref: 759.



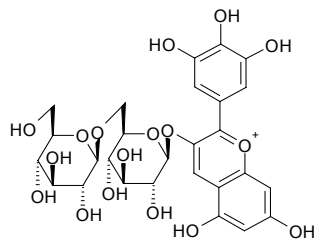
**5019 Delphinidin-3,7-di-O-β-glucopyranoside-3',5'-di-O-(6-O-p-coumaroyl)-β-glucopyranoside**

C<sub>57</sub>H<sub>63</sub>O<sub>31</sub><sup>+</sup> (1244.12). Source: TA SI MA NI YA JIE GENG LAN *Dianella tasmanica* (berry), HEI JIE GENG LAN *Dianella nigra* (berry). Ref: 5214.

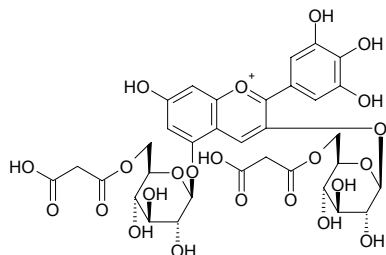


**5020 Delphinidin-3-diglucoside**

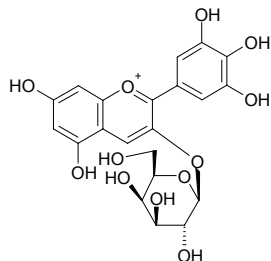
$C_{27}H_{31}O_{17}^+$  (627.54). Source: SHUI HU LU *Eichhornia crassipes*. Ref: 6.

**5021 Delphinidin-3,5-di-O-(6-O-malonyl-β-D-glucoside)**

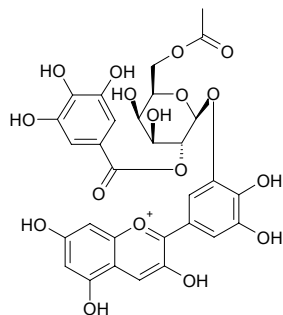
$C_{33}H_{35}O_{23}^+$  (799.63). Source: JU QU *Cichorium intybus*. Ref: 1955.

**5022 Delphinidin-3-O-β-D-galactopyranoside**

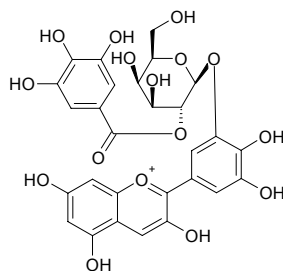
Empetrin [68852-84-6]  $C_{21}H_{21}O_{12}^+$  (465.39). Source: CHA YE *Camellia sinensis* [Syn. *Thea sinensis*]. Ref: 759.

**5023 Delphinidin-3'-O-(2''-O-galloyl-6''-O-acetyl-β-galactopyranoside)**

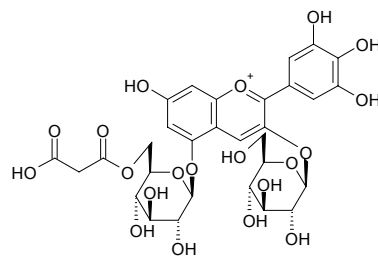
$C_{30}H_{27}O_{17}^+$  (659.54). Source: LAN SHUI LIAN *Nymphaea caerulea*. Ref: 1863.

**5024 Delphinidin-3'-O-(2''-O-galloyl-β-galactopyranoside)**

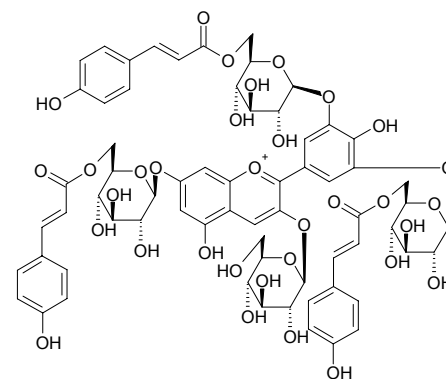
$C_{28}H_{25}O_{16}^+$  (617.50). Source: LAN SHUI LIAN *Nymphaea caerulea*. Ref: 1863.

**5025 Delphinidin-3-O-(β-D-glucopyranoside)-5-O-(6-O-malonyl-β-D-glucopyranoside)**

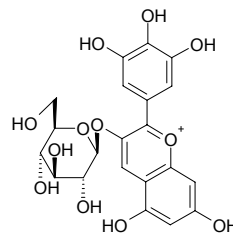
$C_{30}H_{33}O_{20}^+$  (713.59). Source: HE LAN ZHONG ZHI FAN HONG HUA *Crocus antalyensis* cv. Ref: 1897.

**5026 Delphinidin-3-O-β-D-glucopyranoside-7,3',5'-tri-O-(6-O-p-coumaroyl-β-glucopyranoside)**

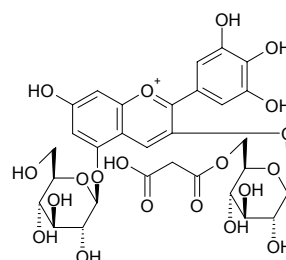
$C_{66}H_{69}O_{33}^+$  (1390.27). Source: TA SI MA NI YA JIE GENG LAN *Dianella tasmanica* (berry), HEI JIE GENG LAN *Dianella nigra* (berry). Ref: 5214.

**5027 Delphinidin-3-glucoside**

[6906-38-3]  $C_{21}H_{21}O_{12}^+$  (465.39). Source: BAI FAN DOU *Phaseolus vulgaris*, HEI DA DOU PI *Glycine max*, QIE ZI *Solanum melongena*. Ref: 6.

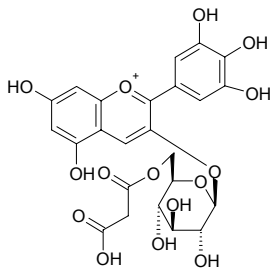
**5028 Delphinidin-3-O-(6-O-malonyl-β-D-glucoside)-5-O-β-D-glucoside**

$C_{30}H_{33}O_{20}^+$  (713.59). Source: JU QU *Cichorium intybus*. Ref: 1955.

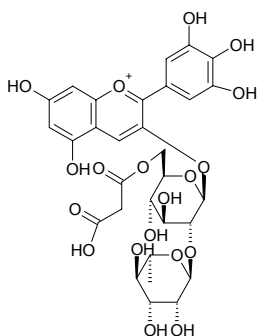


**5029 Delphinidin-3-neohesperidoside**

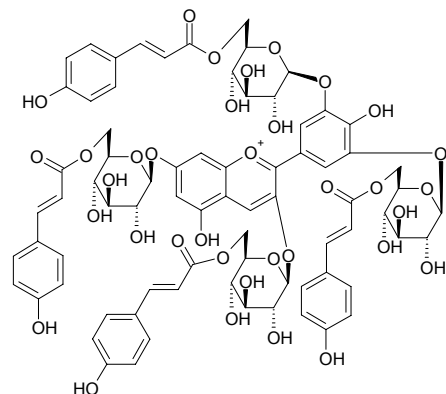
$C_{24}H_{23}O_{15}$  (551.44). Dark red amorphous powder. Source: HU DIE HUA DOU *Clitoria ternatea* (petal). Ref: 3480.

**5030****Delphinidin-3-O-(2''-O- $\alpha$ -rhamnosyl-6''-O-malonyl)- $\beta$ -glucoside**

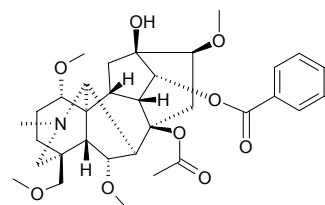
$C_{30}H_{33}O_{19}$  (697.59). Dark red amorphous powder. Source: HU DIE HUA DOU *Clitoria ternatea* (petal). Ref: 3480.

**5031****Delphinidin-3,7,3',5'-tetra-O-(6-O-*p*-coumaroyl)- $\beta$ -glucopyranoside**

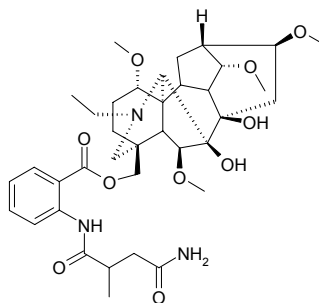
$C_{75}H_{75}O_{35}$  (1536.41). Source: TA SI MA NI YA JIE GENG LAN *Dianella tasmanica* (berry), HEI JIE GENG LAN *Dianella nigra* (berry). Ref: 5214.

**5032 Delphinine**

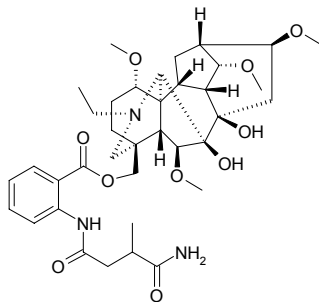
[561-07-9]  $C_{33}H_{45}NO_9$  (599.73). Pharm: Inhibits respiration; similar action with aconitine. Source: SI TA WEI CUI QUE HUA *Delphinium staphisagria*. Ref: 658.

**5033 Delsemine A**

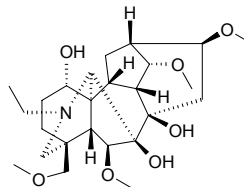
$C_{37}H_{53}N_3O_{10}$  (699.85).  $[\alpha]_D^{30} = +368^\circ$  ( $c = 0.7$ ,  $CHCl_3$ ). Source: E MEI CUI QUE HUA *Delphinium omeiense*, FU ZI *Aconitum carmichaeli*. Ref: 16, 2190.

**5034 Delsemine B**

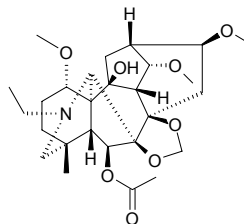
$C_{37}H_{53}N_3O_{10}$  (699.85).  $[\alpha]_D^{30} = +28.2^\circ$  ( $c = 0.6$ ,  $CHCl_3$ ). Source: E MEI CUI QUE HUA *Delphinium omeiense*, FU ZI *Aconitum carmichaeli*. Ref: 16, 2190.

**5035 Delsoline**

[509-18-2]  $C_{25}H_{41}NO_7$  (467.61). mp 213.0~216.5°C. Pharm: Causes paroxysm convulsion and breath inhibition (mus, administration by non-intestinal tract); insecticidal; antihypertensive (anesthetic cat and dog, 5~15mg/kg); smooth muscle relaxant. Source: E MEI CUI QUE HUA *Delphinium omeiense*, FEI YAN CAO *Consolida ajacis* [Syn. *Delphinium ajacis*], GAN WAN WU TOU *Aconitum finetianum*, QIANG GU FEI YAN CAO *Delphinium consolida*, SHAN DI WU TOU *Aconitum monticola*. Ref: 6, 658, 2190.

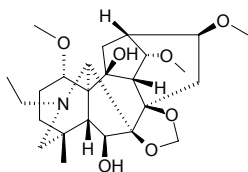
**5036 Deltaline**

[6836-11-9]  $C_{27}H_{41}NO_8$  (507.63). Pharm: Antispasmodic; antihypertensive (rat, iv, 20mg/kg). Source: FU ZI *Aconitum carmichaeli*, GAO FEI YAN CAO *Delphinium elatum*, WANG GUO CUI QUE HUA *Delphinium dictyocarpum*, XI FANG CUI QUE HUA *Delphinium occidentale*, YI LI CUI QUE HUA *Delphinium iliense*. Ref: 16, 658.

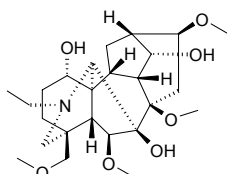


**5037 Deltamine**

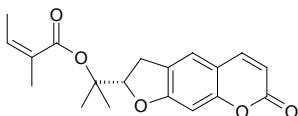
[6836-10-8] C<sub>25</sub>H<sub>39</sub>NO<sub>7</sub> (465.59). Source: FU ZI *Aconitum carmichaeli*.  
Ref: 16.

**5038 Deltatsine**

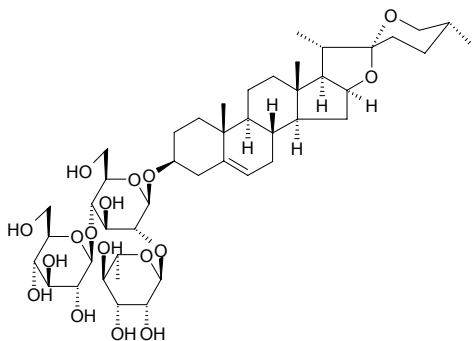
[92631-66-8] C<sub>25</sub>H<sub>41</sub>NO<sub>7</sub> (467.61). Amorphous powder, +1H<sub>2</sub>O, [α]<sub>D</sub><sup>20</sup> = +28.6° (c = 2.4, EtOH). Source: E MEI CUI QUE HUA *Delphinium omeiense*, KANG DING CUI QUE HUA *Delphinium tatsienense*. Ref: 1521, 2190.

**5039 Deltoin**

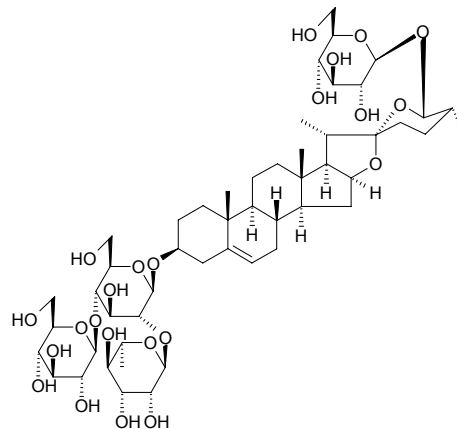
[19662-71-6] C<sub>19</sub>H<sub>20</sub>O<sub>5</sub> (328.37). Source: FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*], YUN QIAN HU *Peucedanum rubricaula*. Ref: 2, 177.

**5040 Deltonin**

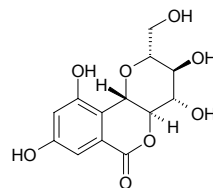
Trilloside A [55659-75-1] C<sub>45</sub>H<sub>72</sub>O<sub>17</sub> (885.07). mp 290~292°C. Pharm: Raw material for partial synthesis of steroid hormone (its aglucon is used); phosphatase inhibitor (HeLa cell stimulated by TPA and joined by <sup>32</sup>P)<sup>[2165]</sup>. Source: SAN JIAO YE SHU YU *Dioscorea deltoidea*, SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], XIAO HUA DUN YE SHU YU *Dioscorea parviflora*, YU ER QI *Trillium camtschaticum*, ZA JIAO BAI HE *Lilium speciosum* x *L. nobilissimum*. Ref: 6, 10, 658, 2165.

**5041 Deltoside**

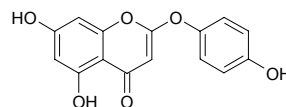
C<sub>51</sub>H<sub>82</sub>O<sub>23</sub> (1063.21). Pharm: Raw material for partial synthesis of steroid hormone (its diosgenin is used). Source: SAN JIAO YE SHU YU *Dioscorea deltoidea*, XIAO HUA DUN YE SHU YU *Dioscorea parviflora*. Ref: 10.

**5042 Demethoxybergenin**

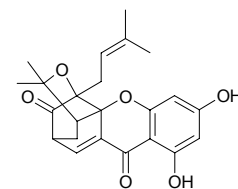
C<sub>13</sub>H<sub>15</sub>O<sub>8</sub> (298.25). Colorless needles, mp 305°C (dec., MeOH), [α]<sub>D</sub><sup>20</sup> = -22.7° (c = 0.08, MeOH). Pharm: Cytotoxic inactive (murine breast cancer cell line FM3A, 100μmol/L). Source: YOU SE ZI JIN NIU *Ardisia colorata* (fruit). Ref: 4244.

**5043 6-Demethoxycapillarisin**

C<sub>15</sub>H<sub>10</sub>O<sub>6</sub> (286.24). Source: YIN CHEN HAO *Artemisia capillaris*. Ref: 2.

**5044 Demethoxy-cochinchinone D**

C<sub>23</sub>H<sub>24</sub>O<sub>6</sub> (396.44). Pharm: Antioxidant inactive (DPPH scavenger, 50μmol/L, ScRt = 5.2%; control BHT, 50μmol/L, ScRt = 51.7%, IC<sub>50</sub> = 28.9μmol/L)<sup>[4423]</sup>. Source: HUANG NIU MU *Cratoxylum cochinchinense* (root). Ref: 4423.

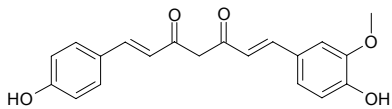




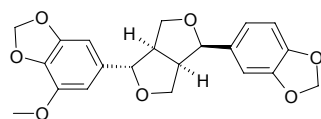
**5045 Demethoxycurcumin**

1-(4-Hydroxy-3-methoxyphenyl)-7-(4-hydroxyphenyl)-1,6-heptadiene-3,5-dione  $C_{20}H_{18}O_5$  (338.36). Yellow needles, mp 180–181°C. **Pharm:**

Neuroprotective (*in vitro* protects PC12 cells from  $\beta$ -Amyloid insult: anti- $\beta$ A(25-35),  $ED_{50} = (4.0 \pm 0.5) \mu\text{g/mL}$ ; anti- $\beta$ A(1-41),  $ED_{50} = (5.0 \pm 0.5) \mu\text{g/mL}$ ; control Congo red: anti- $\beta$ A(25-35),  $ED_{50} = (37.5 \pm 5.4) \mu\text{g/mL}$ ; anti- $\beta$ A(1-41),  $ED_{50} = (39.2 \pm 5.2) \mu\text{g/mL}$ ). **Source:** JIANG HUANG *Curcuma longa* (turmeric powder: yield = 0.0012%dw). **Ref:** 4643.

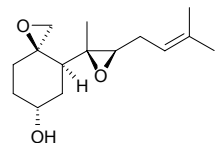
**5046 (+)-5'-Demethoxyepixelsin**

$C_{21}H_{20}O_7$  (384.39). Colorless crystals (Me<sub>2</sub>CO),  $[\alpha]_D^{20} = +116.3^\circ$  ( $c = 1.35$ , CHCl<sub>3</sub>) **Source:** DIE DA LAO *Litsea verticillata*. **Ref:** 1984.

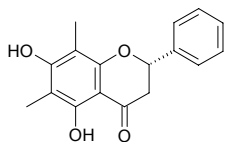
**5047 5-Demethoxyfumagillol**

(3*R*,4*R*,6*R*)-4-[(2*R*,3*R*)-2-Methyl-3-(3-methyl-but-2-enyl)-oxiranyl]-1-oxa-spiro[2,5]octan-6-ol  $C_{15}H_{24}O_3$  (252.36). Colorless oil. **Pharm:**

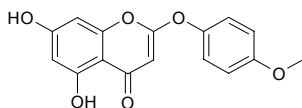
Anti-angiogenic (angiogenesis inhibitor, calf CPAE cell,  $IC_{50} = 7.06 \mu\text{mol/L}$ , control TNP-470,  $IC_{50} = 0.0011 \mu\text{mol/L}$ , mus L5178Y cell,  $IC_{50} > 39.6 \mu\text{mol/L}$ , control TNP-470,  $IC_{50} > 24.5 \mu\text{mol/L}$ ). **Source:** YAN QU MEI *Aspergillus fumigatus*. **Ref:** 4061.

**5048 Demethoxymatteucinol**

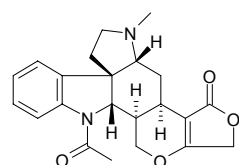
$C_{17}H_{16}O_4$  (284.31).  $[\alpha]_D^{25} = -48.1^\circ$  ( $c = 0.52$ , acetone). **Source:** YANG PU TAO YE *Syzygium samarangense*. **Ref:** 4100.

**5049 6-Demethoxy-4'-methoxycapillarisin**

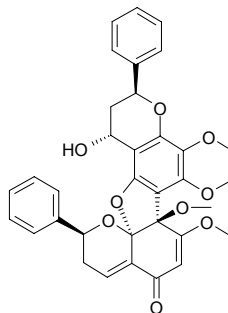
$C_{16}H_{12}O_6$  (300.27). **Source:** YIN CHEN HAO *Artemisia capillaris*. **Ref:** 2.

**5050 11-Demethoxymyrtoidine**

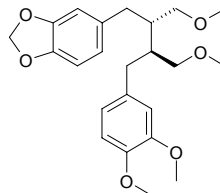
$C_{22}H_{24}N_2O_4$  (380.45). Crystals (EtOAc-*n*-hexane), mp 237–240°C,  $[\alpha]_D^{20} = -28.9^\circ$  ( $c = 0.4$ , CH<sub>2</sub>Cl<sub>2</sub>). **Source:** *Strychnos myrtoides*. **Ref:** 2297.

**5051 6''-Demethoxyneocalyopteron**

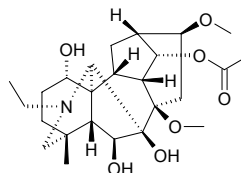
$C_{34}H_{32}O_9$  (584.63). Pale amorphous solid, mp 157–159°C (Et<sub>2</sub>O–petrol),  $[\alpha]_D^{20} = -199.14^\circ$  ( $c = 0.350$ ). **Source:** E CHI TENG *Calycopteris floribunda* (green part). **Ref:** 3779.

**5052 5-Demethoxyniranthin**

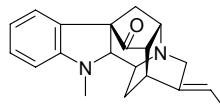
$C_{23}H_{30}O_6$  (402.49). White amorphous solid,  $[\alpha]_D^{25} = +15.4^\circ$  ( $c = 0.19$ ). **Source:** YE XIA ZHU *Phyllanthus urinaria*. **Ref:** 3410.

**5053 18-Demethoxypubescenine**

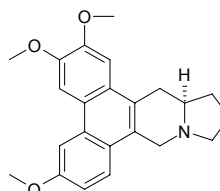
$C_{23}H_{30}NO_7$  (465.59). Amorphous solid,  $[\alpha]_D^{25} = +1.1^\circ$  ( $c = 0.4$ , CHCl<sub>3</sub>). **Source:** DONG FANG FEI YAN CAO *Consolida orientalis* (aerial parts). **Ref:** 4283.

**5054 Demethoxypurpeline**

$C_{20}H_{22}N_2O$  (306.41). Yellow amorphous solid **Source:** BA XI LUO FU MU *Rauwolfia bahiensis*. **Ref:** 1952.

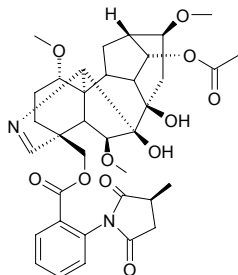
**5055 7-Demethoxytylophorine**

Antofine  $C_{23}H_{25}NO_3$  (363.46). Yellow needles (MeOH–CHCl<sub>3</sub>),  $[\alpha]_D^{26} = -115.30^\circ$  ( $c = 0.477$ , CHCl<sub>3</sub>); colorless gum,  $[\alpha]_D^{21} = -58.3^\circ$  ( $c = 0.11$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (inhibits growth of hmn cancer cells, hmn lung cancer cells A549,  $IC_{50} = (7.0 \pm 0.2) \text{ng/mL}$ , control Ellipticine,  $IC_{50} = (500 \pm 25) \text{ng/mL}$ ; hmn colon cancer cells Col2,  $IC_{50} = (8.6 \pm 0.3) \text{ng/mL}$ , Ellipticine,  $IC_{50} = (340 \pm 35) \text{ng/mL}$ ; action mechanism is to arrest in the G2/M phase of cell cycle)<sup>[5342]</sup>. **Source:** NIU XIN PIAO ZI *Cynanchum komarovii*, XU CHANG QING *Cynanchum paniculatum* (root). **Ref:** 2206, 5342.

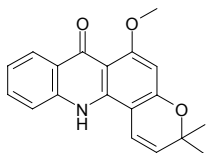


**5056 14-Demethyl-14-acetylanhweidelphinine**

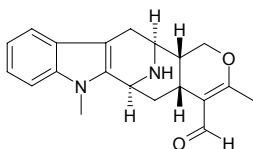
$C_{36}H_{44}N_2O_{11}$  (680.76). Amorphous,  $[\alpha]_D^{25} = +67.1^\circ$  ( $c = 0.16$ ,  $CHCl_3$ ).  
 Source: WU ZHU FEI YAN CAO *Delphinium pentagynum* (aerial parts).  
 Ref: 3831.

**5057 N-Demethyl-acronycine**

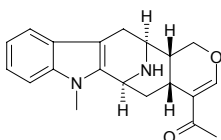
[13255-08-8]  $C_{19}H_{17}NO_3$  (307.35). Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 11.

**5058 N(4)-Demethylalstonerinal**

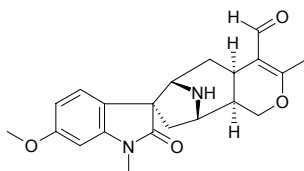
$C_{20}H_{22}N_2O_2$  (322.41). Source: XIA YE JI GU CHANG SHAN *Alstonia angustifolia* (leaf). Ref: 3780.

**5059 N(4)-Demethylalstonerine**

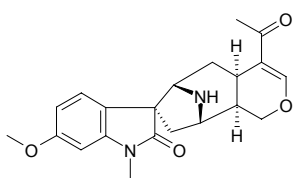
$C_{20}H_{22}N_2O_2$  (322.41). Source: XIA YE JI GU CHANG SHAN *Alstonia angustifolia* (leaf). Ref: 3780.

**5060 N(4)-Demethylalstophyllal oxindole**

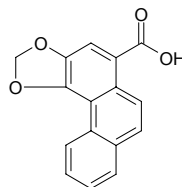
$C_{21}H_{24}N_2O_4$  (368.44). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.00001%). Ref: 3020.

**5061 N(4)-Demethylalstophylline oxindole**

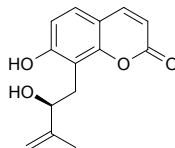
$C_{21}H_{24}N_2O_4$  (368.44). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.00003%). Ref: 3020.

**5062 Demethylaristofolin E**

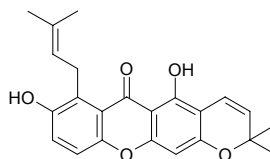
3,4-Methylenedioxyphenanthrene-1-carboxylic acid  $C_{16}H_{10}O_4$  (266.26). Yellow crystalline solid ( $CHCl_3/(CH_3)_2CO$ ), mp 256~258°C. Pharm: Anti-HIV inactive (*in vitro*, acutely infected H-9 lymphocyte cells)<sup>[4706]</sup>; cytotoxic inactive (*in vitro*, MCF7 and A549). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00083%). Ref: 4706.

**5063 Demethylaurapteneol**

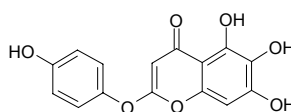
(S)-(-)-7-Hydroxy-8-(2-hydroxy-3-methyl-3-butenyl)-2H-1-benzopyran-2-one  $C_{14}H_{14}O_4$  (246.27). Pharm: Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500(mol ratio/32 pmol TPA): EBV-EA-positive cells = (15.3±1.6)% (viability > 80%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability > 80), Curcumin, EBV-EA-positive cells = (22.8±1.8)% (viability > 80%), compound  $IC_{50} = 207$ (mol ratio/32 pmol TPA),  $\beta$ -Carotene,  $IC_{50} = 400$ (mol ratio/32 pmol TPA), Curcumin,  $IC_{50} = 341$ (mol ratio/32 pmol TPA))<sup>[5048]</sup>. Source: TAI WAN HUANG BO *Phellodendron amurense* var. *wilsonii* (leaf: yield = 0.00016%dw), *Citrus hassaku*. Ref: 4722, 5048.

**5064 Demethylcalabaxanthone**

1,7-Dihydroxy-8-(3-methylbut-2-enyl)-6',6'-dimethylpyrano(2',3':3,2)-xanthone  $C_{23}H_{22}O_5$  (378.43). Pharm: Cytotoxic (KB cancer cell lines,  $IC_{50} = 10.9\mu g/mL$ , control Ellipticine,  $IC_{50} = 1.33\mu g/mL$ ; BC-1,  $IC_{50} = 2.85\mu g/mL$ , Ellipticine,  $IC_{50} = 1.46\mu g/mL$ ; NCI-H187,  $IC_{50} = 3.13\mu g/mL$  Ellipticine,  $IC_{50} = 0.39\mu g/mL$ )<sup>[1619]</sup>; antitubercular (*Mycobacterium tuberculosis*, MIC = 12.5 $\mu g/mL$ )<sup>[4358]</sup>. Source: DAO NIAN ZI *Garcinia mangostana* (unripe fruit: yield = 0.0068%dw)<sup>[1619]</sup>. Ref: 1619, 4358.

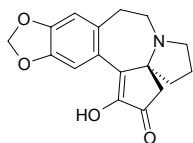
**5065 6-Demethylcapillarisin**

$C_{15}H_{10}O_7$  (302.24). Yellow needles, mp 272~274°C. Source: HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*] (bud). Ref: 4815.

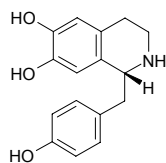


**5066 Demethylcephalotaxinone**

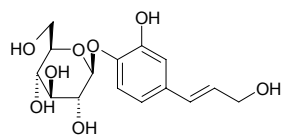
$C_{17}H_{17}NO_4$  (299.33). Source: HAI NAN CU FEI *Cephalotaxus hainanensis* [Syn. *Cephalotaxus manii*], SAN JIAN SHAN *Cephalotaxus fortunei* (drupe: yield = 0.00020%)<sup>[4675]</sup>, ZHONG GUO CU FEI ZHI YE *Cephalotaxus sinensis* [Syn. *Cephalotaxus harringtonia* var. *sinensis*]. Ref: 2, 660, 4675.

**5067 Demethylcoclaurine**

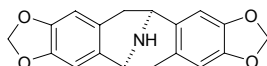
Higenamine [5843-65-2]  $C_{16}H_{17}NO_3$  (271.32). mp 260~262°C. Pharm: Enhances cardiac motility; raises heart rate; antiasthmatic (gpg, asthma caused by histamine, bronchial smooth muscle relaxant); treatment of chronic arrhythmia; coronary, cerebral and peripheral vasodilator. Source: FU ZI *Aconitum carmichaeli*, LIAN ZI *Nelumbo nucifera*, XIAO YE MAI MA TENG *Gnetum parvifolium* [Syn. *Gnetum indicum*], RI BEN WU TOU *Aconitum japonicum*, WU TOU *Aconitum carmichaeli*. Ref: 2, 4, 658, 1521, 5501.

**5068 Demethyl coniferin**

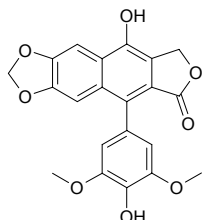
$C_{15}H_{20}O_8$  (328.32). White powder. Source: SHAN TONG ZI *Idesia polycarpa*. Ref: 2494.

**5069 (-)-N-Demethylerychine**

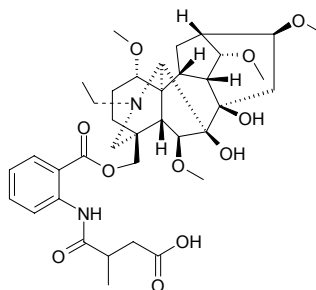
$C_{18}H_{15}NO_4$  (309.32). Yellow powder (acetone),  $[\alpha]_D^{20} = -74.3^\circ$  ( $c = 0.02$ , MeOH). Source: HOU KE GUI *Cryptocarya chinensis* (wood). Ref: 3092.

**5070 4'-Demethyldehydropodophyllotoxin**

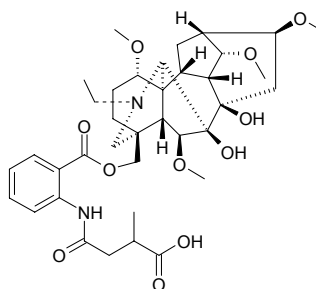
$C_{21}H_{16}O_8$  (396.36). White needles, mp > 320°C. Source: LIU JIAO LIAN *Dysosma pleiantha* [Syn. *Podophyllum pleianthum*]. Ref: 4801.

**5071 Demethyldepravine A**

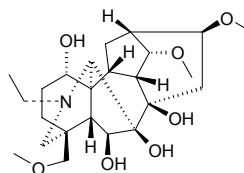
$C_{37}H_{52}N_2O_{11}$  (700.83). Source: FU ZI *Aconitum carmichaeli*. Ref: 16.

**5072 Demethyldepravine B**

$C_{37}H_{52}N_2O_{11}$  (700.83). Source: FU ZI *Aconitum carmichaeli*. Ref: 16.

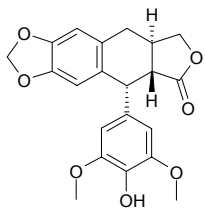
**5073 6-Demethyldeisoline**

$C_{24}H_{39}NO_7$  (453.58). Colorless massive crystals, mp 202~204°C. Source: ZI HUA GAO WU TOU *Aconitum excelsum*. Ref: 689.

**5074 4'-Demethyldeoxypodophyllotoxin**

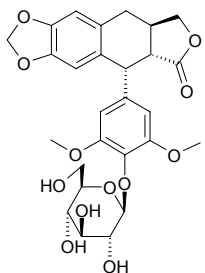
4-Demethyl-deoxypodophyllotoxin  $C_{21}H_{20}O_7$  (384.39). Colorless lamellar crystals, mp 246~248°C,  $[\alpha]_D^{20} = -127.3^\circ$  ( $c = 0.11$ ,  $CHCl_3$ ). Pharm: Antineoplastic (P<sub>388</sub>); antimitotic; cytotoxic (KB, ED<sub>50</sub> = 0.0012μg/mL); cytotoxic (KB, IC<sub>50</sub> = 17.7ng/mL, control Vinblastine, IC<sub>50</sub> = 9.7ng/mL; LNCaP, IC<sub>50</sub> = 10.0ng/mL, Vinblastine, IC<sub>50</sub> = 10.5ng/mL; Col2, IC<sub>50</sub> = 23.1ng/mL, Vinblastine, IC<sub>50</sub> = 8.1ng/mL)<sup>[5336]</sup>. Source: BAI BA JIAO LIAN *Dysosma majorensis* [Syn. *Podophyllum majorensis*; *Dysosma lichuanensis*] (rhizome: content = 0.0089%)<sup>[5508]</sup>, BI LIN BA JIAO LIAN *Dysosma furfuracea* (rhizome: mean content in different seasons = 0.75%)<sup>[5508]</sup>, CHONG MING BA JIAO LIAN *Dysosma subrosea* (rhizome: content = 0.020%)<sup>[5508]</sup>, CHUAN BA JIAO LIAN *Dysosma veitchii* (rhizome: content = 0.0092%)<sup>[5508]</sup>, DA XIAN YUAN ZHI *Polygala macradenia*, GUANG XI BA JIAO LIAN *Dysosma guangxiensis* (rhizome: content = 0.0042%)<sup>[5508]</sup>, GUI JIU *Dysosma versipellis* [Syn. *Podophyllum versipelle*] (rhizome: content = 0.15%)<sup>[5508]</sup>, LIU JIAO LIAN *Dysosma pleiantha* [Syn. *Podophyllum pleianthum*] (rhizome: content = 0.076%)<sup>[5508]</sup>, LUN SHENG SHAN XIANG *Hyptis verticillata*, PEI NI YUAN ZHI *Polygala paenea*, TAO ER QI *Podophyllum emodii* [Syn. *Podophyllum emodii* var. *chinense*; *Podophyllum sikkimensis*; *Sinopodophyllum emodii*] (rhizome: mean

content of 3 origins = 0.46%<sup>[5508]</sup>), WO ER QI *Diphylleia sinensis* (rhizome: content = 0.56%<sup>[5508]</sup>), XI MA LA YA YUAN ZHI *Polygala emodi*, XIAO BA JIAO LIAN *Dysosma difformis* (rhizome: content = 0.0031%<sup>[5508]</sup>), YUE NAN LIE LAN *Bursera tonkinensis* (root), ZU YE CAO *Polygala peltatum*. Ref: 661, 3543, 5336, 5508.



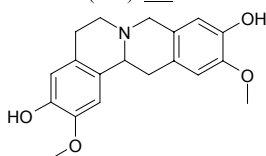
**5075 4'-Demethyldeoxypodophyllotoxin-4-O-β-D-glucoside**

C<sub>27</sub>H<sub>30</sub>O<sub>12</sub> (546.53). [α]<sub>D</sub><sup>20</sup> = +20.6° (c = 0.14, CHCl<sub>3</sub>). Pharm: Cytotoxic inactive (100 μg/mL: KB, LNCaP, and Col2 cells). Source: YUE NAN LIE LAN *Bursera tonkinensis* (root). Ref: 5336.



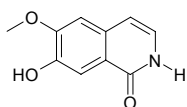
**5076 (-)-10-O-Demethyldiscretine**

C<sub>19</sub>H<sub>21</sub>NO<sub>4</sub> (327.38). Source: YOU GOU YING ZHAO *Artabotrys uncinatus* (root). Ref: 3083.



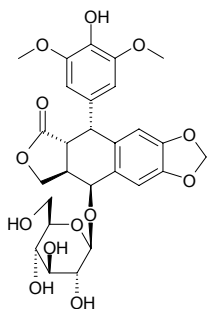
**5077 N-Demethyldoryphornine**

7-Hydroxy-6-methoxy-1(2H)-isoquinolinone C<sub>10</sub>H<sub>9</sub>NO<sub>3</sub> (191.19). Colorless rods (MeOH), mp 257–259°C. Source: BIAN FU GE GEN *Menispermum dauricum*. Ref: 3792.



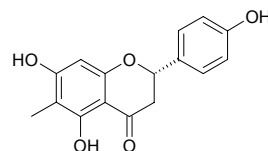
**5078 4-Demethylepipodophyllotoxin 7'-O-β-D-glucopyranoside**

C<sub>27</sub>H<sub>30</sub>O<sub>13</sub> (562.53). White needles, [α]<sub>D</sub><sup>15</sup> = -29.3° (c = 0.63, MeOH). Source: TAO ER QI *Podophyllum emodii* [Syn. *Podophyllum emodii* var. *chinense*; *Podophyllum sikkimensis*; *Sinopodophyllum emodii*] (root and rhizome). Ref: 4142.



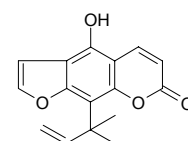
**5079 8-Demethylfarrerol**

C<sub>16</sub>H<sub>14</sub>O<sub>5</sub> (286.29). mp 267–270°C. Source: MAN SHAN HONG *Rhododendron dauricum*. Ref: 6, 507.



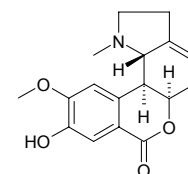
**5080 Demethylfuropinnarin**

C<sub>16</sub>H<sub>14</sub>O<sub>4</sub> (270.29). Source: JU MAO LEI A WEI *Ferulago capillaries* (aerial parts), QIANG HUO *Notopterygium incisum*, KUAN YE QIANG HUO *Notopterygium forbesii* [Syn. *Notopterygium franchetii*]. Ref: 2, 325, 660, 3938.



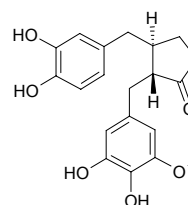
**5081 9-Demethylhomolycorine**

[6879-81-8] C<sub>17</sub>H<sub>19</sub>NO<sub>4</sub> (301.35). mp 213–214°C. Pharm: Cytotoxic (hmn lymphoma Molt4, ED<sub>50</sub> = 18.5 μg/mL, mouse fiber cell LMTK, ED<sub>50</sub> = 0.8 μg/mL). Source: SHI SUAN *Lycoris radiata* [Syn. *Amaryllis radiata*]. Ref: 6, 1847.



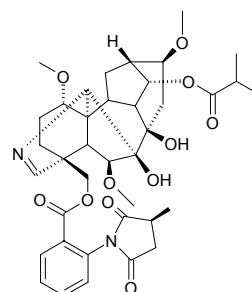
**5082 (-)-3'-O-Demethyl-5-hydroxymatairesinol**

(8*R*,8'*R*)-3'-*O*-Demethyl-5-hydroxymatairesinol C<sub>19</sub>H<sub>20</sub>O<sub>7</sub> (360.37). [α]<sub>D</sub><sup>23</sup> = -27.5° (c = 0.10, MeOH). Source: *Macroccoccus pomiferus* (stem). Ref: 3869.



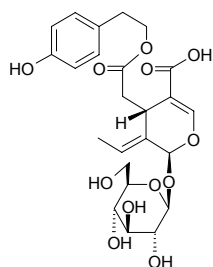
**5083 14-Demethyl-14-isobutyrylanhweidelphinine**

C<sub>38</sub>H<sub>48</sub>N<sub>2</sub>O<sub>11</sub> (708.81). Amorphous substance, [α]<sub>D</sub><sup>25</sup> = +65.2° (c = 0.14, CHCl<sub>3</sub>). Source: WU ZHU FEI YAN CAO *Delphinium pentagynum* (aerial parts). Ref: 3831.

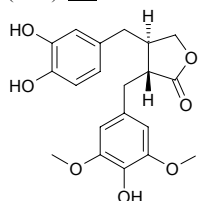


**5084 Demethyligstroside**

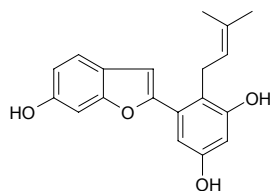
$C_{24}H_{30}O_{12}$  (510.50). Colorless amorphous powder,  $[\alpha]_D^{26} = -110^\circ$  ( $c = 0.32$ , MeOH). Source: MEI GUO BAI CEN *Fraxinus americana* (leaf). Ref: 5091.

**5085 (-)-3'-O-Demethyl-5-methoxymatairesinol**

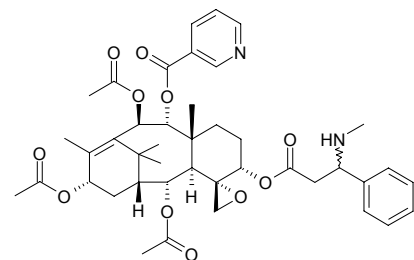
(8*R*,8'*R*)-3'-*O*-Demethyl-5-methoxymatairesinol  $C_{20}H_{22}O_7$  (374.39).  $[\alpha]_D^{23} = -6.0^\circ$  ( $c = 0.12$ , MeOH). Source: *Macrocooccus pomiferus* (stem). Ref: 3869.

**5086 Demethylmoracin I**

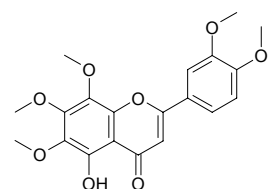
Anticancer Benzofuran PMV70P691-006  $C_{19}H_{18}O_4$  (310.35). Brown powder, mp 82~83°C. Pharm: Aromatase inhibitor (*in vitro*,  $IC_{50} = 31 \mu\text{mol/L}$ ; control Aminoglutethimide,  $IC_{50} = 6.4 \mu\text{mol/L}$ )<sup>[3090,5038]</sup>. Source: GOU SHU *Broussonetia papyrifera*. Ref: 3090, 5038.

**5087 N-Demethylnicaustrine**

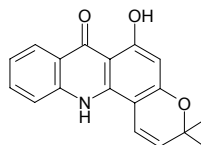
[126617-16-1]  $C_{42}H_{52}N_2O_{11}$  (760.89). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.

**5088 Demethylnobiletin**

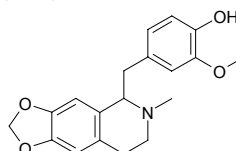
5-Hydroxy-6,7,8,3',4'-pentamethoxyflavone [2174-59-6]  $C_{20}H_{20}O_8$  (388.38). mp 144°C. Source: A ER TAI ZI WAN *Heteropappus altaicus*, JU PI *Citrus reticulata*. Ref: 2, 6.

**5089 N-Demethylnoracronycine**

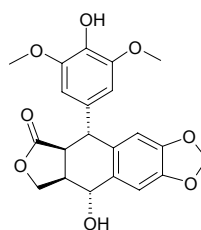
[13396-93-5]  $C_{18}H_{15}NO_3$  (293.33). Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 11.

**5090 N-Demethylphylocryptine**

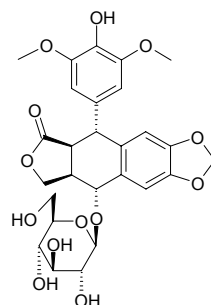
$C_{19}H_{21}NO_4$  (327.38). Source: HOU KE GUI *Cryptocarya chinensis* (wood). Ref: 3092.

**5091 4-Demethyl-picropodophyllotoxin**

$C_{21}H_{20}O_8$  (400.39). Source: TAO ER QI *Podophyllum emodii* [Syn. *Podophyllum emodii* var. *chinense*; *Podophyllum sikkimensis*; *Sinopodophyllum emodii*] (root and rhizome). Ref: 3543.

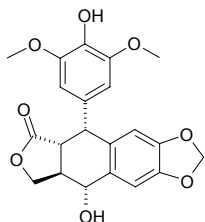
**5092 4-Demethyl-picropodophyllotoxin 7'-O-beta-D-glucopyranoside**

$C_{27}H_{30}O_{13}$  (562.53). White powder,  $[\alpha]_D^{29} = -5.18^\circ$  ( $c = 0.6$ , MeOH). Source: TAO ER QI *Podophyllum emodii* [Syn. *Podophyllum emodii* var. *chinense*; *Podophyllum sikkimensis*; *Sinopodophyllum emodii*] (root and rhizome). Ref: 3543.

**5093 4-Demethyl-podophyllotoxin**

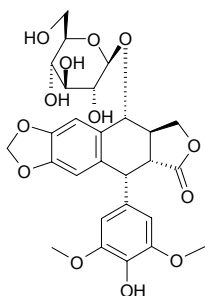
4'-Demethylpodophyllotoxin [40505-27-9]  $C_{21}H_{20}O_8$  (400.39). Pharm: Antineoplastic; antimitotic; antiviral; laxative; used in treatment of skin cancer; supertoxic agent. Source: BAI BA JIAO LIAN *Dysosma majorensis* [Syn. *Podophyllum majorensis*; *Dysosma lichuanensis*] (rhizome: content = 0.013%)<sup>[5508]</sup>, BAI YA MA *Linum album*, BI LIN BA JIAO LIAN *Dysosma furfuracea* (rhizome: mean content in different seasons = 0.47%)<sup>[5508]</sup>, CHONG MING BA JIAO LIAN *Dysosma subrosea* (rhizome: content = 0.48%)<sup>[5508]</sup>, CHUAN BA JIAO LIAN *Dysosma veitchii* (rhizome: content = 0.022%)<sup>[5508]</sup>, GUANG XI BA JIAO LIAN *Dysosma guangxiensis* (rhizome: content = 0.0071%)<sup>[5508]</sup>, GUI JIU *Dysosma versipellis* [Syn. *Podophyllum versipelle*] (rhizome: content = 0.0053%)<sup>[5508]</sup>, KU YUAN ZHI *Polygala polygama*, LIU JIAO

LIAN *Dysosma pleiantha* [Syn. *Podophyllum pleianthum*] (rhizome: mean content = 0.11%)<sup>[5508]</sup>, TAO ER QI *Podophyllum emodii* [Syn. *Podophyllum emodii* var. *chinense*; *Podophyllum sikkimense*; *Sinopodophyllum emodii*] (rhizome: mean content of 5 origins = 0.63%)<sup>[5508]</sup>, WO ER QI *Diphylleia sinensis* (rhizome: mean content of 4 origins = 0.78%)<sup>[5508]</sup>, XIAO BA JIAO LIAN *Dysosma difformis* (rhizome: content = 0.22%)<sup>[5508]</sup>. Ref: 658, 3543, 5508.



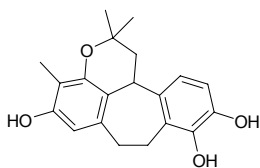
#### 5094 4-Demethyl-podophyllotoxin 7'-O-β-D-glucopyranoside

C<sub>27</sub>H<sub>30</sub>O<sub>13</sub> (562.53). Source: TAO ER QI *Podophyllum emodii* [Syn. *Podophyllum emodii* var. *chinense*; *Podophyllum sikkimense*; *Sinopodophyllum emodii*] (root and rhizome). Ref: 3543.



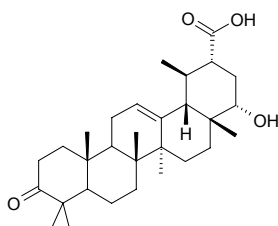
#### 5095 Demethylracemosol

C<sub>20</sub>H<sub>22</sub>O<sub>4</sub> (326.40). Pharm: Cytotoxic (KB, EC<sub>50</sub> = 5.6 μg/mL, control Ellipticine, EC<sub>50</sub> = 0.3 μg/mL; BC, EC<sub>50</sub> = 3.6 μg/mL, Ellipticine, EC<sub>50</sub> = 0.3 μg/mL)<sup>[5092]</sup>; antimalarial (*Plasmodium falciparum*, EC<sub>50</sub> = 2.0 μg/mL, control Chloroquine diphosphate, EC<sub>50</sub> = 0.16 μg/mL). Source: MA LA BA YANG TI JIA *Bauhinia malabarica* (root). Ref: 5092.



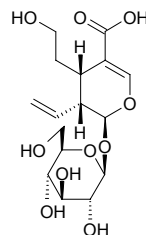
#### 5096 Demethylregelin

C<sub>30</sub>H<sub>46</sub>O<sub>4</sub> (470.70). Pharm: DPPH scavenger inactive (for 40 μmol/L DPPH radical, SC<sub>50</sub> > 40 μmol/L). Source: SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*] (stem). Ref: 4378.



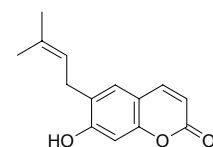
#### 5097 Demethylsecologanol

C<sub>16</sub>H<sub>24</sub>O<sub>10</sub> (376.36). Amorphous, [α]<sub>D</sub><sup>23</sup> = -108.3° (c = 0.06, MeOH). Source: LIU QIU SHE GEN CAO *Ophiorrhiza liukiensis* (whole herb). Ref: 4527.



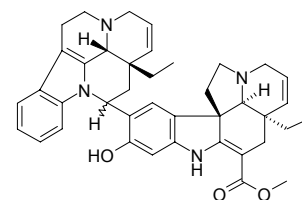
#### 5098 7-Demethylsuberosin

[12422-04-8] C<sub>14</sub>H<sub>14</sub>O<sub>3</sub> (230.27). Pharm: AChE inhibitor (*in vitro*, IC<sub>50</sub> = 2.4 mmol/L)<sup>[3058]</sup>; antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500 (mol ratio/32 pmol TPA), EBV-EA-positive cells = (15.4 ± 1.7)% (viability = 60%), β-Carotene, EBV-EA-positive cells = (34.3 ± 1.1)% (viability > 80%), Curcumin, EBV-EA-positive cells = (22.8 ± 1.8)% (viability > 80%); IC<sub>50</sub> = 172 (mol ratio/32 pmol TPA), β-Carotene, IC<sub>50</sub> = 400 (mol ratio/32 pmol TPA), Curcumin IC<sub>50</sub> = 341 (mol ratio/32 pmol TPA))<sup>[5048]</sup>. Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*], CHAO XIAN DANG GUI *Angelica gigas* (underground part)<sup>[3058]</sup>, LI HUA JU *Citrus tachibana*, *Citrus rugulosa*, *Citrus jambhiri*, *Citrus sulcata*, *Citrus tamurana*. Ref: 2, 3058, 5048.



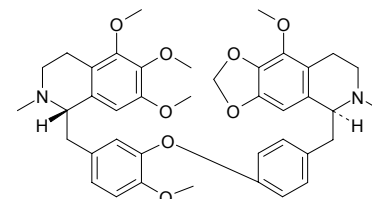
#### 5099 De-O-methyltenuicausine

[221640-45-5] C<sub>40</sub>H<sub>44</sub>N<sub>4</sub>O<sub>3</sub> (628.82). White amorphous powder, mp 190°C, [α]<sub>D</sub><sup>13</sup> = -198.5° (c = 0.047, CHCl<sub>3</sub>). Source: CHUAN SHAN CHENG *Melodinus hemsleyanus*. Ref: 412.



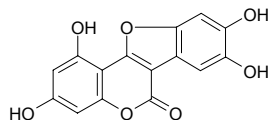
#### 5100 N-Demethylthalistyline

[62251-51-8] C<sub>40</sub>H<sub>48</sub>N<sub>2</sub>O<sub>8</sub> (682.82). Yellow amorphous powder, [α]<sub>D</sub><sup>25</sup> = +151° (c = 0.2, methanol). Pharm: Antibacterial (*Mycobacterium smegmatis*, MIC ≤ 100 μg/mL); antihypertensive (dog, rbt). Source: CHANG ZHU TANG SONG CAO *Thalictrum longistylum*, BING GUO TANG SONG CAO *Thalictrum podocarpum*. Ref: 661.

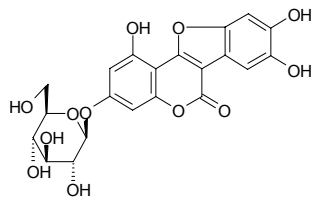


**5101 Demethylwedelolactone**

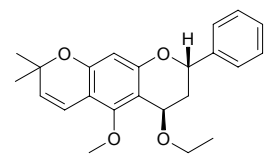
Norwedelolactone [6468-55-9]  $C_{15}H_8O_7$  (300.23). Green needles (MeOH), mp 360°C. **Pharm:** Antihepatotoxin (rat, liver toxicosis induced by  $CCl_4$ ,  $GaIn$  and phalloidin, 67.6 $\mu$ g/mL for liver toxicosis induced by phalloidin, InRt = 98%,  $CD_{50}$  = 22.3 $\mu$ g/mL, promotes regeneration of liver cells obviously); hemostatic ( $ED_{50}$  = 0.3mg/kg, 0.5mg/kg reduces bleeding time by 4.2min); antifungal (*Aspergillus niger*, 100mg/L InRt = 50%). **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*], PENG QI JU *Wedelia chinensis* [Syn. *Solidago chinensis*; *Wedelia calendulacea*], XIAO LIAN QIAO *Hypericum erectum*. **Ref:** 6, 2754, 2755, 2756, 2757, 2758, 2759, 2760.

**5102 Demethylwedelolactone-7-glucoside**

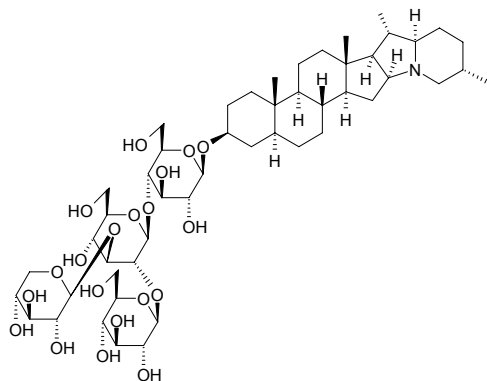
$C_{21}H_{18}O_{12}$  (462.37). **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 6.

**5103 4 $\beta$ -Demethylxuanlanin-4 $\beta$ -ethyl ether**

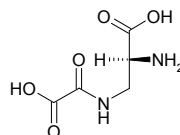
4 $\beta$ -Ethoxy-5-methoxy-6'',6''-dimethyl-2H-pyrano-(2'',3'':7,6)-flavan  $C_{23}H_{26}O_4$  (366.46). Yellow oil. **Source:** *Lonchocarpus xuul* (stem cortex). **Ref:** 3973.

**5104 Demissine**

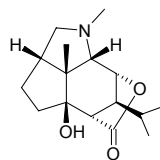
[6077-69-6]  $C_{50}H_{83}NO_{20}$  (1018.21). **Pharm:** Antifungal; cardiotonic. **Source:** CHA QIE *Solanum chacoense*, KE MO SEN QIE *Solanum commersonii*, AI QIE *Solanum demissum*, SHI XIAN QIE *Solanum decemlineata*, JU SHI QIE *Solanum juzepczukii*. **Ref:** 658, 661.

**5105 (S)-Dencichine**

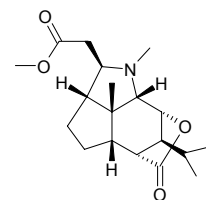
[5302-45-4]  $C_5H_8N_2O_5$  (176.13). **Pharm:** Hemostatic (mouse, perfusion in stomach, 1mg/kg, platelets increase = (24~30)%<sup>[5501]</sup>;  $LD_{50}$  (mouse, perfusion in stomach) = (836 $\pm$ 17)mg/kg<sup>[5501]</sup>. **Source:** SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (root: mean content in different standards = 0.350%<sup>[5508]</sup>; 0.87%<sup>[5501]</sup>). **Ref:** 1521, 5501, 5508.

**5106 Dendramine**

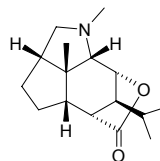
[7668-75-9]  $C_{16}H_{25}NO_3$  (279.38). mp 186~188°C. **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile*. **Ref:** 6.

**5107 Dendrine**

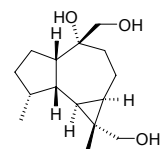
[2651-57-2]  $C_{19}H_{29}NO_4$  (335.45). mp 191~192°C. **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile*. **Ref:** 6.

**5108 Dendrobine**

[2115-91-5]  $C_{16}H_{25}NO_2$  (263.38). mp 135~136°C. **Pharm:** Antipyretic; causes hyperspasmia in toxic doses; inhibits respiration; antihypertensive; analgesic; uterine stimulant. **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile* (the compound was isolated from the plant by Y.Inubushi, et al. in 1965)<sup>[5505]</sup>, FEN LAI SHI HU *Dendrobium findleyanum*. **Ref:** 6, 658, 5501, 5505.

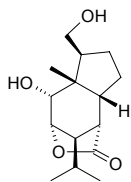
**5109 Dendrobiumane A**

$C_{13}H_{26}O_3$  (254.37). Colorless gum,  $[\alpha]_D^{24} = +2.3^\circ$  ( $c = 0.35$ , EtOH). **Source:** XI JING SHI HU *Dendrobium moniliforme* (fresh stem). **Ref:** 5490.

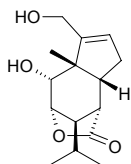


**5110 Dendrobiumane B**

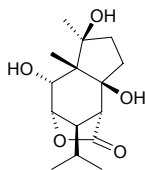
$C_{15}H_{24}O_4$  (268.36). Colorless gum,  $[\alpha]_D^{23} = -7.0^\circ$  ( $c = 0.80$ , EtOH). Source: XI JING SHI HU *Dendrobium moniliforme* (fresh stem). Ref: 5490.

**5111 Dendrobiumane C**

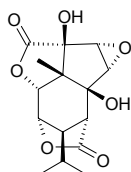
$C_{15}H_{22}O_4$  (266.34). Colorless gum,  $[\alpha]_D^{24} = +122.7^\circ$  ( $c = 0.05$ , EtOH). Source: XI JING SHI HU *Dendrobium moniliforme* (fresh stem). Ref: 5490.

**5112 Dendrobiumane D**

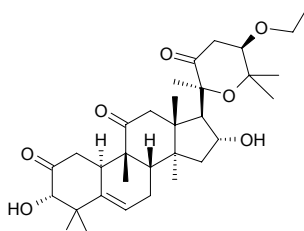
$C_{15}H_{24}O_5$  (284.36). Colorless gum,  $[\alpha]_D^{23} = +5.7^\circ$  ( $c = 0.31$ , EtOH). Source: XI JING SHI HU *Dendrobium moniliforme* (fresh stem). Ref: 5490.

**5113 Dendrobiumane E**

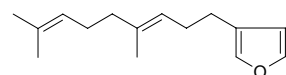
$C_{15}H_{18}O_7$  (310.31). Colorless gum,  $[\alpha]_D^{24} = +4.1^\circ$  ( $c = 0.21$ , EtOH). Source: XI JING SHI HU *Dendrobium moniliforme* (fresh stem). Ref: 5490.

**5114 Dendrocyin**

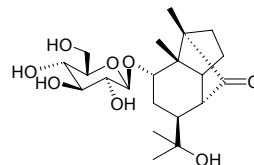
Isocucurbitacin; 24 $\beta$ -Ethoxy-20-25-epoxy-3 $\alpha$ ,16 $\alpha$ -dihydroxy-9-methyl-19-norlanost-5(6) ene-2,11,22-trione  $C_{32}H_{48}O_7$  (544.74). White prisms (methanol), mp 195–198°C. Source: *Dendrosicyos socotrana* (stem). Ref: 3855.

**5115 Dendrolasin**

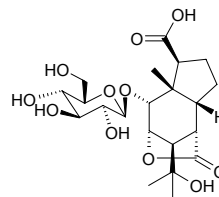
[23262-34-2]  $C_{15}H_{22}O$  (218.34). bp 148–150°C/16mmHg. Source: TAN XIANG *Santalum album*. Ref: 6.

**5116 Dendromoniliside A**

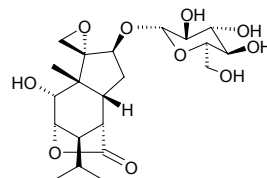
2 $\alpha$ ,12-Dihydroxycopacamphan-15-one 2-*O*- $\beta$ -*D*-glucopyranoside  $C_{21}H_{34}O_8$  (414.5). White amorphous powder, mp 215–216°C (dec),  $[\alpha]_D^{20} = 0.6^\circ$  ( $c = 0.4$ , H<sub>2</sub>O). Pharm: Proliferation stimulator (B cells *in vitro*, 0.00001 mol/L,  $p < 0.05$ ); proliferation inhibitor (T cells *in vitro*, 0.0000001 mol/L,  $p < 0.05$ , without any obvious cytotoxic effects). Source: XI JING SHI HU *Dendrobium moniliforme* (stem: yield = 0.0007%dw). Ref: 4717.

**5117 Dendromoniliside B**

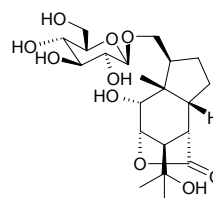
2 $\alpha$ ,3 $\alpha$ ,12-Trihydroxypicrotoxane-3(15 $\alpha$ )-olid-11-oic acid 2-*O*- $\beta$ -*D*-glucopyranoside  $C_{21}H_{32}O_{11}$  (460.48). Colorless prism crystals (MeOH:H<sub>2</sub>O = 1:1), mp 225–227°C,  $[\alpha]_D^{20} = -18.3^\circ$  ( $c = 0.5$ , MeOH). Source: XI JING SHI HU *Dendrobium moniliforme* (stem: yield = 0.0003%dw). Ref: 4717.

**5118 Dendromoniliside C**

2 $\alpha$ ,3 $\alpha$ ,8 $\beta$ -Trihydroxy-9 $\alpha$ -(11)-epoxypicrotoxan-3(15 $\alpha$ )-olide 8-*O*- $\beta$ -*D*-glucopyranoside  $C_{21}H_{32}O_{10}$  (444.48). White amorphous powder, mp 170–172°C,  $[\alpha]_D^{20} = 0.5^\circ$  ( $c = 0.4$ , H<sub>2</sub>O). Pharm: Proliferation stimulator (B cells *in vitro*, 0.00001 mol/L,  $p < 0.05$ ); proliferation inhibitor (T cells *in vitro*, 0.0000001 mol/L,  $p < 0.05$ , without any obvious cytotoxic effects). Source: XI JING SHI HU *Dendrobium moniliforme* (stem: yield = 0.0007%dw). Ref: 4717.

**5119 Dendromoniliside D**

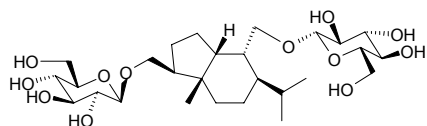
2 $\alpha$ ,3 $\alpha$ ,11,12-Tetrahydroxypicrotoxan-3(15 $\alpha$ )-olide 11-*O*- $\beta$ -*D*-glucopyranoside  $C_{21}H_{34}O_{10}$  (446.5). White amorphous powder, mp 205–207°C,  $[\alpha]_D^{20} = -0.4^\circ$  ( $c = 1.2$ , H<sub>2</sub>O). Source: XI JING SHI HU *Dendrobium moniliforme* (stem: yield = 0.0003%dw). Ref: 4717.



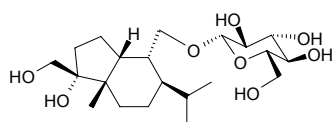


**5120 Dendronobiloside A**

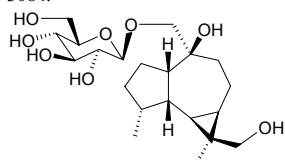
10,12-Dihydroxypicrotoxane 10,12-di-*O*- $\beta$ -*D*-glucopyranoside C<sub>27</sub>H<sub>48</sub>O<sub>12</sub> (564.68). White amorphous powder,  $[\alpha]_D^{20} = -62.9^\circ$  ( $c = 0.6$ , MeOH). **Pharm:** Immunoenhancer (*in vitro*, stimulates significantly proliferation of mouse B lymphocytes, 1.0 $\mu$ mol/L,  $p < 0.01$ , control Astragaloside I, 1.0 $\mu$ mol/L,  $p < 0.05$ ). **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile* (stem). **Ref:** 3084.

**5121 Dendronobiloside B**

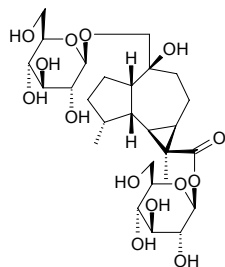
6 $\alpha$ ,10,12-Trihydroxypicrotoxane 10-*O*- $\beta$ -*D*-glucopyranoside C<sub>21</sub>H<sub>38</sub>O<sub>8</sub> (418.53). White amorphous powder,  $[\alpha]_D^{20} = -63.6^\circ$  ( $c = 0.5$ , MeOH). **Pharm:** Immunosuppressant (*in vitro*, inhibits proliferation of mouse T lymphocytes, 0.1-10.0 $\mu$ mol/L,  $p < 0.05$ ). **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile* (stem). **Ref:** 3084.

**5122 Dendroside A**

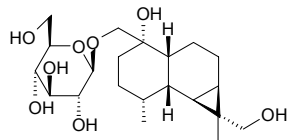
10 $\beta$ ,12,14-Trihydroxyalloaromadendrane 14-*O*- $\beta$ -*D*-glucopyranoside C<sub>21</sub>H<sub>36</sub>O<sub>8</sub> (416.52). White amorphous powder; mp 145~147°C,  $[\alpha]_D^{14} = -48.6^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Immunoenhancer (*in vitro*, stimulates significantly proliferation of mouse T lymphocytes, 0.1 $\mu$ mol/L,  $p < 0.01$ , control Astragaloside I, 10 $\mu$ mol/L,  $p < 0.05$ ; stimulates significantly proliferation of mouse B lymphocytes, 10 $\mu$ mol/L,  $p < 0.01$ , Astragaloside I, 1.0 $\mu$ mol/L,  $p < 0.05$ ). **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile* (stem). **Ref:** 3084.

**5123 Dendroside D**

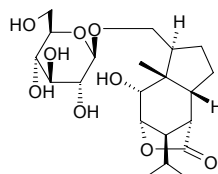
C<sub>27</sub>H<sub>44</sub>O<sub>14</sub> (592.64). White amorphous powder,  $[\alpha]_D^{20} = -31.3^\circ$  ( $c = 0.5$ , MeOH). **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile*. **Ref:** 1931.

**5124 Dendroside E**

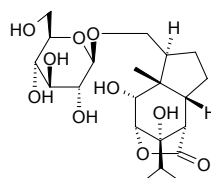
C<sub>21</sub>H<sub>36</sub>O<sub>8</sub> (416.52). White amorphous powder,  $[\alpha]_D^{20} = -38.3^\circ$  ( $c = 0.4$ , MeOH). **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile*. **Ref:** 1931.

**5125 Dendroside F**

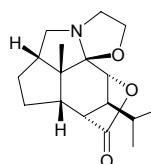
C<sub>21</sub>H<sub>34</sub>O<sub>9</sub> (430.50). White amorphous powder,  $[\alpha]_D^{20} = -30.6^\circ$  ( $c = 0.5$ , MeOH). **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile*, XI JING SHI HU *Dendrobium moniliforme* (stem: yield = 0.00016%dw)<sup>[4717]</sup>. **Ref:** 1931, 4717.

**5126 Dendroside G**

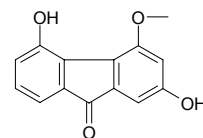
C<sub>21</sub>H<sub>34</sub>O<sub>10</sub> (446.50). White amorphous powder,  $[\alpha]_D^{20} = -24.9^\circ$  ( $c = 0.6$ , MeOH) **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile*. **Ref:** 1931.

**5127 Dendroxine**

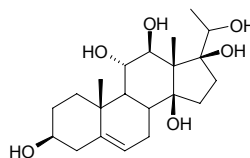
[7668-77-1] C<sub>17</sub>H<sub>25</sub>NO<sub>3</sub> (291.39). mp 114~115°C. **Source:** SHI HU<sup>(4)</sup> *Dendrobium nobile*. **Ref:** 6.

**5128 Dengibsin**

C<sub>14</sub>H<sub>10</sub>O<sub>4</sub> (242.23). **Source:** MI HUA SHI HU *Dendrobium densiflorum* (stem). **Ref:** 5171.

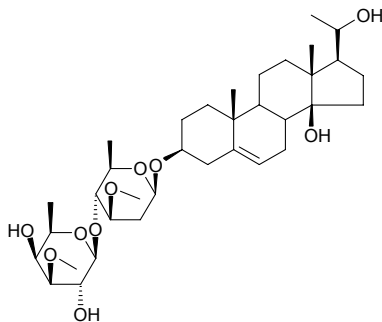
**5129 Deniagenin**

3 $\beta$ ,11 $\alpha$ ,12 $\beta$ ,14 $\beta$ ,17 $\beta$ ,20-Hexahydroxy pregn-5-ene C<sub>21</sub>H<sub>34</sub>O<sub>6</sub> (382.50). White amorphous powder, mp 110°C,  $[\alpha]_D = -66.7^\circ$  ( $c = 0.3$ , CHCl<sub>3</sub>). **Source:** ROU LEI NIU NAI CAI *Marsdenia roylei* (aerial parts). **Ref:** 3490.

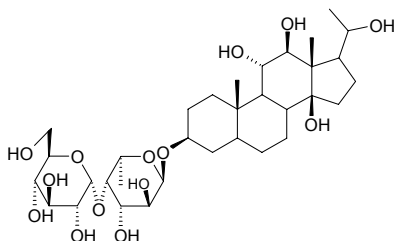


**5130 Denicunine**

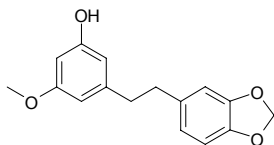
Calogenin 3-*O*-3-*O*-methyl- $\beta$ -*D*-fucopyranosyl-(1 $\rightarrow$ 4)-*O*- $\beta$ -*D*-oleandro-pyranoside C<sub>33</sub>H<sub>58</sub>O<sub>10</sub> (638.85). mp 148°C,  $[\alpha]_D = +20^\circ$  ( $c = 0.11$ , MeOH). Source: YIN DU BA QIA *Hemidesmus indicus* (stem). Ref: 5081.

**5131 Denin**

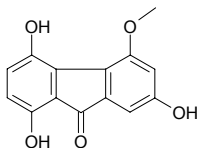
Desacylkundurangenin C-3-*O*- $\alpha$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)-*O*- $\alpha$ -*L*-fucopyranoside C<sub>33</sub>H<sub>56</sub>O<sub>14</sub> (676.81). White amorphous powder, mp 232°C,  $[\alpha]_D = +12.5^\circ$  ( $c = 0.016$ , CHCl<sub>3</sub>). Source: ROU LEI NIU NAI CAI *Marsdenia roylei* (aerial parts). Ref: 3490.

**5132 Densiflorol A**

C<sub>16</sub>H<sub>16</sub>O<sub>4</sub> (272.30). White amorphous powder. Source: MI HUA SHI HU *Dendrobium densiflorum* (stem). Ref: 5171.

**5133 Densiflorolorin**

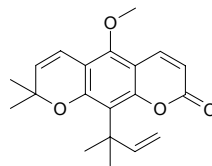
C<sub>14</sub>H<sub>10</sub>O<sub>5</sub> (258.23). Red amorphous powder. Source: MI HUA SHI HU *Dendrobium densiflorum* (stem). Ref: 5171.

**5134 Dentatin**

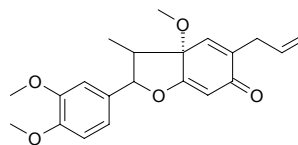
Poncitrin [22980-57-0] C<sub>20</sub>H<sub>22</sub>O<sub>4</sub> (326.40). mp 95–96°C; mp 93–94°C. Pharm: Antibacterial (*Mycobacterium tuberculosis*, MIC = 50 µg/mL, control Isoniazide, MIC = 0.040–0.090 µg/mL, Kanamycin sulfate, MIC = 2.0–5.0 µg/mL)<sup>[5367]</sup>; antifungal inactive (*Candida albicans*, control Amphotericin, IC<sub>50</sub> = 0.01 µg/mL)<sup>[5367]</sup>; antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500 (mol ratio/32 pmol TPA), EBV-EA-positive cells = (47.9±1.4)% (viability > 80%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability > 80), Curcumin,

EBV-EA-positive cells = (22.8±1.8)% (viability > 80%); IC<sub>50</sub> = 496 (mol ratio/32 pmol TPA),  $\beta$ -Carotene, IC<sub>50</sub> = 400 (mol ratio/32 pmol TPA), Curcumin IC<sub>50</sub> = 341 (mol ratio/32 pmol TPA))<sup>[5048]</sup>.

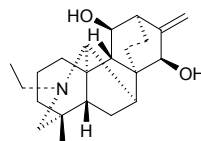
Source: CHENG ZI *Citrus junos*, SHAN HUANG PI *Clausena excavata*, YE HUANG PI *Clausena dentata*, ZHI GEN PI *Poncirus trifoliata*. Ref: 6, 1521, 5367, 5048.

**5135 (-)-Denudatin B**

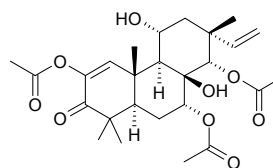
C<sub>21</sub>H<sub>24</sub>O<sub>5</sub> (356.42). Colorless oleaginous substance,  $[\alpha]_D^{15} = -76.4^\circ$  ( $c = 0.11$ , CHCl<sub>3</sub>). Pharm: PAF antagonist (IC<sub>50</sub> = 7.5 µmol/L); PAF receptor antagonist (5 µg/mL, InRt = 80.1%, 10 µg/mL, InRt = 100%); used in treatment of rheumatic arthritis and asthma; calcium antagonist (28 µmol/L, activity = 100%); calcium antagonist (gpg, colon bands); vascular relaxant (inhibits inward flow of calcium, increase cGMP); anti-platelet (nonspecific). Source: WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*], HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*]. Ref: 267, 658, 1578, 1609, 1610, 1611.

**5136 Denudatine**

[26166-37-0] C<sub>22</sub>H<sub>33</sub>NO<sub>2</sub> (343.51). Pharm: Antiarrhythmic (rat, aconitine induced arrhythmia, inhibits rapid inward flow of sodium ion; CaCl<sub>2</sub> induced arrhythmia, reduces heart rate); antihypertensive (rat, iv, 25–50 mg/kg, slightly blood pressure goes down); eclamptogenic (mus, iv, ED<sub>50</sub> = 55.6 mg/kg); Intestinal smooth muscle relaxant (dog intestine, reduces tension and creep); antineoplastic (leukemia); cytotoxic; LD<sub>50</sub> (mus, iv) = 128 mg/kg, (mus, orl) = 290 mg/kg. Source: LU CUI QUE *Delphinium denudatum*, FU ZI *Aconitum carmichaeli*. Ref: 16, 1621, 1622, 1623, 1624.

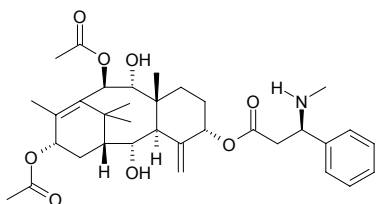
**5137 14-Deoxy-14-O-acetylorthosiphol Y**

C<sub>26</sub>H<sub>36</sub>O<sub>9</sub> (492.57). Colorless amorphous solid,  $[\alpha]_D^{25} = -29.1^\circ$  ( $c = 0.340$ , CHCl<sub>3</sub>). Pharm: NO production inhibitor (LPS-activated macrophage-like J774.1 cells, IC<sub>50</sub> = 118.7 µmol/L; control L-NMMA, IC<sub>50</sub> = 35.7 µmol/L). Source: XIONG RUI ZHUANG ZHI GUAN CAO *Orthosiphon stamineus* [Syn. *Orthosiphon aristatus*; *Orthosiphon grandiflorus*; *Orthosiphon spicatus*] (aerial parts: yield = 0.00038% dw). Ref: 4741.

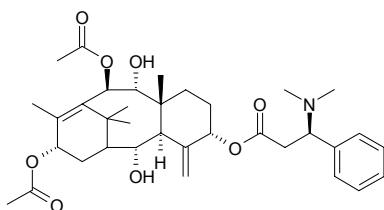


**5138 13-Deoxo-13 $\alpha$ -acetyloxy-1-deoxynortaxine B**

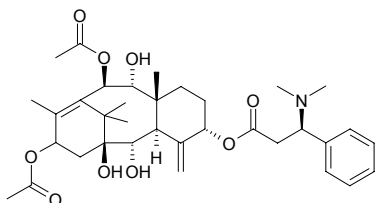
2 $\alpha$ ,9 $\alpha$ -Dihydroxy-10 $\beta$ ,13 $\alpha$ -diacetoxy-5 $\alpha$ -(3'-N-methylamino-3'-phenyl)-propionyloxytaxa-4(20),11-diene C<sub>34</sub>H<sub>47</sub>NO<sub>8</sub> (597.76). Gum, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = +47° (c = 0.21, CHCl<sub>3</sub>). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle leaf), JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662, 3886.

**5139 13-Deoxo-13 $\alpha$ -acetyloxy-1-deoxytaxine B**

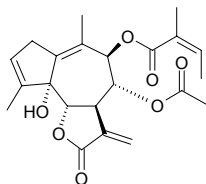
C<sub>35</sub>H<sub>49</sub>NO<sub>8</sub> (611.78). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**5140 13-Deoxo-3 $\alpha$ -acetyloxytaxine B**

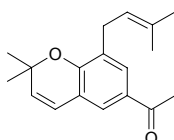
C<sub>35</sub>H<sub>49</sub>NO<sub>9</sub> (627.78). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**5141 2-Deoxo-8-O-acetyl pumilin**

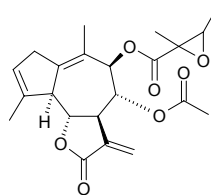
C<sub>22</sub>H<sub>26</sub>O<sub>7</sub> (402.45). Yellow oil, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = 0.024° (c = 2.75, CH<sub>2</sub>Cl<sub>2</sub>). Source: *Balsamorhiza sagittata* (aerial parts), *Balsamorhiza macrophylla* (aerial parts). Ref: 991.

**5142 Deoxodehydrocyclopiloselloidone**

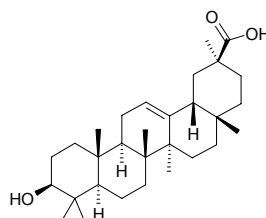
Desoxodehydrocyclopiloselloidone C<sub>18</sub>H<sub>22</sub>O<sub>2</sub> (270.37). Source: MAO DA DING CAO *Gerbera piloselloides*. Ref: 6.

**5143 2-Deoxo-5-deoxy-8-O-acetyl-17,18-epoxy pumilin**

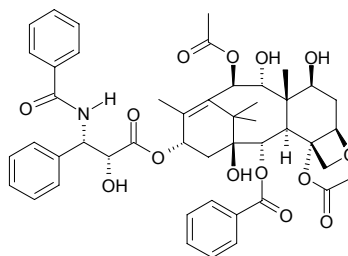
C<sub>22</sub>H<sub>26</sub>O<sub>7</sub> (402.45). Yellow oil, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = 0.03° (c = 3.88, CH<sub>2</sub>Cl<sub>2</sub>). Source: *Balsamorhiza sagittata* (aerial parts), *Balsamorhiza macrophylla* (aerial parts). Ref: 991.

**5144 11-Deoxoglycyrrhetic acid**

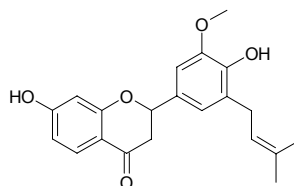
11-Deoxoglycyrrhetic acid C<sub>30</sub>H<sub>48</sub>O<sub>3</sub> (456.72). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra*, LEI GONG TENG *Tripterygium wilfordii*, ZHANG GUO GAN CAO *Glycyrrhiza inflata*. Ref: 2, 660, 670.

**5145 9-Deoxo-9 $\alpha$ -hydroxytaxol**

C<sub>47</sub>H<sub>53</sub>NO<sub>14</sub> (855.94). mp 174~176°C, [ $\alpha$ ]<sub>D</sub> = -13.1° (MeOH). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 662.

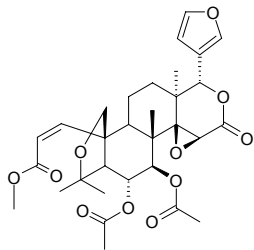
**5146 5-Deoxyabyssinin II**

4',7-Dihydroxy-3'-methoxy-5'-prenylflavanone C<sub>21</sub>H<sub>22</sub>O<sub>5</sub> (354.41). Amorphous powder, [ $\alpha$ ]<sub>D</sub> = 0° (c = 0.01, MeOH). Pharm: Antimalarial (*Plasmodium falciparum* D6, IC<sub>50</sub> = (13.6±0.9)μg/mL, control Chloroquine, IC<sub>50</sub> = (0.009±0.002)μg/mL, Quinine, IC<sub>50</sub> = (0.04±0.01)μg/mL; *Plasmodium falciparum* W2, IC<sub>50</sub> = (13.3±1.5)μg/mL, Chloroquine, IC<sub>50</sub> = (0.08±0.003)μg/mL, Quinine, IC<sub>50</sub> = (0.21±0.01)μg/mL)<sup>[3879]</sup>. Source: A BI XI NI YA CI TONG *Erythrina abyssinica* (stem cortex). Ref: 3879.

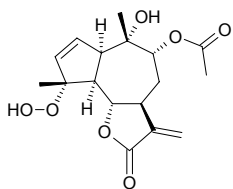


**5147 6-Deoxy-6 $\alpha$ -acetoxyatalantini acetate**

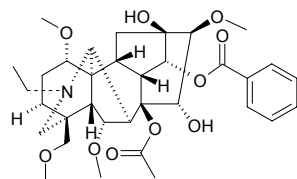
Limonoid C<sub>31</sub>H<sub>38</sub>O<sub>11</sub> (586.64). White lamellar prismatic crystals, mp 208–209°C. Source: DONG FENG JU YE *Atalantia buxifolia* [Syn. *Severinia buxifolia*]. Ref: 402.

**5148 8-Deoxy-9-O-acetylanthemolide B**

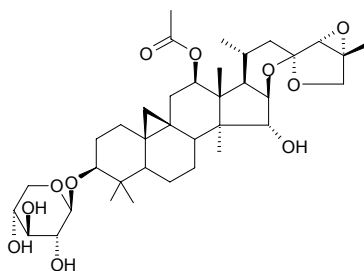
C<sub>17</sub>H<sub>22</sub>O<sub>7</sub> (338.36). Amorphous solid,  $[\alpha]_D^{25} = -54^\circ$  ( $c = 0.32$ , MeOH). Source: *Anthemis carpatica* (aerial parts). Ref: 3974.

**5149 Deoxyaconitine**

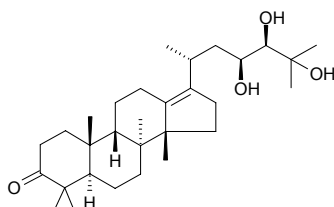
[3175-95-9] C<sub>34</sub>H<sub>47</sub>NO<sub>10</sub> (629.75). Source: FU ZI *Aconitum carmichaeli*. Ref: 16, 1521.

**5150 27-Deoxyactein**

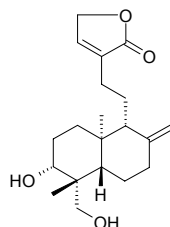
C<sub>37</sub>H<sub>56</sub>O<sub>11</sub> (676.85). Pharm: Cytotoxic (HSC-2 cells, IC<sub>50</sub> = 211 μmol/L, control Etoposide, IC<sub>50</sub> = 24 μmol/L; HGF cells, IC<sub>50</sub> = 276 μmol/L)<sup>[4158]</sup>. Source: ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). Ref: 4158.

**5151 11-Deoxyalisol A**

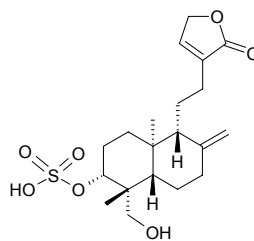
C<sub>30</sub>H<sub>50</sub>O<sub>4</sub> (474.73). Colorless powder. Source: ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*]. Ref: 2213.

**5152 Deoxyandrographolide**

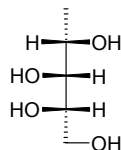
C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). Pharm: Antibacterial; antispasmodic; anti-inflammatory (rat, edema on ears caused by oleum crotonis); reduces effusion of Evan's blue from blood capillary (caused by xylene or acetic acid); stimulates function of adrenal cortex; LD<sub>50</sub> (mus, orl) > 20mg/kg. Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2, 658, 1521, 5501.

**5153 14-Deoxyandrographolide-3-O-sulfate**

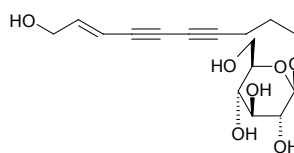
C<sub>20</sub>H<sub>30</sub>O<sub>7</sub>S (414.52). White amorphous powder. Source: REN NIAO *Homo sapiens*. Ref: 4300.

**5154 1-Deoxy-L-arabinitol**

C<sub>5</sub>H<sub>12</sub>O<sub>4</sub> (136.15). Amorphous powder,  $[\alpha]_D^{24} = -3^\circ$  ( $c = 0.5$ , MeOH). Source: YIN DU ZANG HUI XIANG *Carum ajowan* (fruit). Ref: 3547.

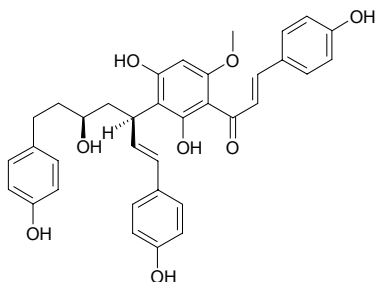
**5155 3-Deoxybidensynoeside B**

(*E*)-8-Decene-4,6-diyne-1,10-diol 1-*O*- $\beta$ -*D*-glucopyranoside C<sub>16</sub>H<sub>22</sub>O<sub>7</sub> (326.35). Colorless crystals, mp 164°C,  $[\alpha]_D^{23} = -67.7^\circ$  ( $c = 0.5$ , MeOH). Pharm: Antihistamine (mast cells, inhibits histamine release induced by antigen-antibody reaction, IC<sub>50</sub> = 0.085 μmol/L, control Indumethacin, IC<sub>50</sub> = 0.625 μmol/L)<sup>[4105]</sup>, NO production inhibitor (mus macrophages RAW264.7, activated by 100ng/mL LPS at 37°C, for 18h, IC<sub>50</sub> = 0.116 μmol/L, activated by 100ng/mL LPS + 10U/mL IFN- $\gamma$  at 37°C, for 18h, IC<sub>50</sub> = 0.078 μmol/L)<sup>[4105]</sup>. Source: XIAO HUA GUI ZHEN *Bidens parviflora* (whole herb). Ref: 4105.

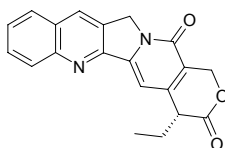


**5156 Deoxycalyxin A**

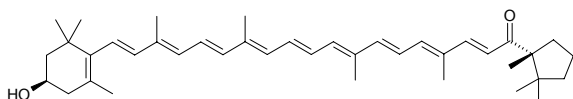
$C_{35}H_{34}O_8$  (582.66). Light yellow amorphous solid,  $[\alpha]_D^{25} = +147.9^\circ$  ( $c = 0.035$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 27.4\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 26.5\mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4\mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000056%). **Ref:** 3035.

**5157 Deoxycamptothecin**

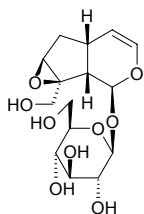
[34141-35-0]  $C_{20}H_{16}N_2O_3$  (332.36). mp 171~172°C. **Source:** XI SHU *Camptotheca acuminata*. **Ref:** 6, 1521.

**5158 3'-Deoxycapsanthin**

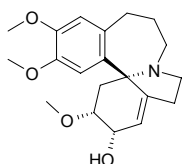
(3*R*,5'*R*)-3-Hydroxy- $\beta$ , $\kappa$ -caroten-6'-one  $C_{40}H_{56}O_2$  (568.89). **Source:** HONG HAI JIAO *Capsicum annuum* (fruit: yield = 0.00005%). **Ref:** 3007.

**5159 6-Deoxycatalpol**

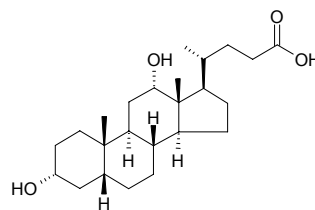
$C_{15}H_{22}O_9$  (346.34). **Source:** ROU CONG RONG *Cistanche deserticola*, GUAN HUA ROU CONG RONG *Cistanche tubulosa*. **Ref:** 2448.

**5160 7-Deoxycephalofortuneine**

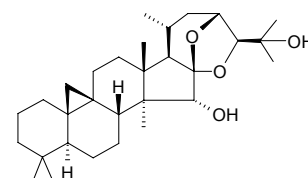
[128508-20-3]  $C_{20}H_{27}NO_4$  (345.44). **Source:** SAN JIAN SHAN *Cephalotaxus fortunei*. **Ref:** 2, 1521.

**5161 Deoxycholic acid**

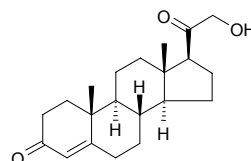
7-Deoxycholic acid [83-44-3]  $C_{24}H_{40}O_4$  (392.58). **Pharm:** Antispasmodic (main antispasmodic component in *Bos taurus domesticus*; *Bubalus bubalis* NIU HUANG)<sup>[5501]</sup>; choleric (bile secretion promoter)<sup>[5501]</sup>; anti-inflammatory (mouse, acetic acid-induced, ip, inhibits increase of vaso-permeability)<sup>[5501]</sup>; antibacterial (*Vibrio cholerae*, *Bacillus coli*, *Staphylococcus tetragenus*, *Staphylococcus aureus*, *Streptococcus* sp.)<sup>[5501]</sup>; antiviral (mouse, encephalitis B virus)<sup>[5501]</sup>; LD<sub>50</sub> (mouse, perfusion in stomach) = 1.06g/kg, (mouse, iv) = 0.15g/kg<sup>[5501]</sup>. **Source:** NIU HUANG *Bos taurus domesticus*; *Bubalus bubalis* (gallstone: mean content = 1.65%<sup>[5508]</sup>), XIONG DAN *Selenarctos thibetanus*; *Ursus arctos*. **Ref:** 2, 658, 5501, 5508.

**5162 3-Deoxycimigenol**

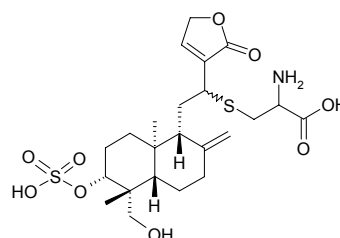
$C_{30}H_{48}O_4$  (472.71). mp 202~203°C. **Source:** RI BEN SHENG MA *Cimicifuga japonica*. **Ref:** 2215.

**5163 Deoxycorticosterone**

21-Hydroxypregn-4-ene-3,20-dione [64-85-7]  $C_{21}H_{30}O_3$  (330.47). mp 141~142°C. **Source:** NIU SHEN *Bos taurus domesticus*; *Bubalus bubalis*, ZI HE CHE *Homo sapiens*. **Ref:** 6.

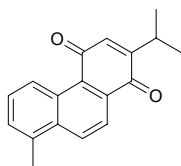
**5164 14-Deoxy-12-(cysteine-S-yl)-andrographolide-3-O-sulfate**

$C_{23}H_{39}NO_9S_2$  (533.66). White amorphous powder. **Source:** REN NIAO *Homo sapiens*. **Ref:** 4300.

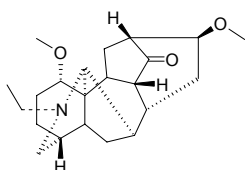


**5165 12-Deoxydanshenxinkun B**

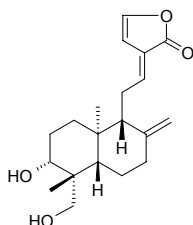
18,20-Dinor-1,3,5(10),6,8,12-abietahexaene-11,14-dione C<sub>18</sub>H<sub>16</sub>O<sub>2</sub> (264.33). Red needles (CHCl<sub>3</sub>-*n*-hexane), mp 187~197°C. Source: JIAO ZHI SHU WEI CAO *Salvia glutinosa* (dried root). Ref: 2384.

**5166 8-Deoxy-14-dehydro-aconosine**

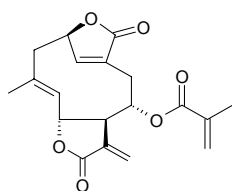
C<sub>22</sub>H<sub>33</sub>NO<sub>3</sub> (359.51). Source: FU ZI *Aconitum carmichaeli*. Ref: 16.

**5167 14-Deoxy-11,12-didehydroandrographolide**

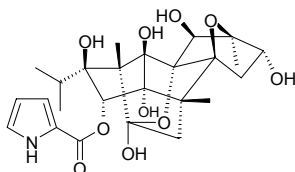
C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2, 1521.

**5168 Deoxyelephantopin**

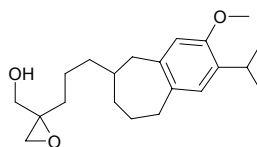
[29307-03-7] C<sub>19</sub>H<sub>20</sub>O<sub>6</sub> (344.37). mp > 320°C. Pharm: Antineoplastic (mus, *in vivo*, Walker cancer); cytotoxic. Source: KU DI DAN *Elephantopus scaber*, KA LUO LAI NA DI DAN CAO *Elephantopus carolinianus*. Ref: 5, 6, 658.

**5169 6-Deoxy-6β,9β-epoxy-8α-hydroxy-10-epi-ryanodine**

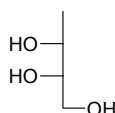
C<sub>25</sub>H<sub>33</sub>NO<sub>10</sub> (507.54). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 3:1), mp 172°C, [α]<sub>D</sub> = -8° (c = 0.2). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

**5170 10-Deoxy-4,18-epoxy-12-methoxy-4,5-seco-pisiferan-19-ol**

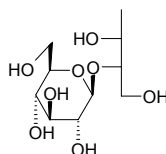
[245110-74-1] C<sub>21</sub>H<sub>32</sub>O<sub>3</sub> (332.49). Gum, [α]<sub>D</sub><sup>25</sup> = +25.8° (c = 0.03, CHCl<sub>3</sub>). Source: HONG GUI *Chamaecyparis formosensis*. Ref: 2315.

**5171 1-Deoxy-L-erythritol**

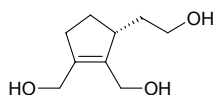
C<sub>4</sub>H<sub>10</sub>O<sub>3</sub> (106.12). Amorphous powder, [α]<sub>D</sub><sup>23</sup> = -30° (c = 0.3, MeOH). Source: YIN DU ZANG HUI XIANG *Carum ajowan* (fruit). Ref: 3547.

**5172 1-Deoxy-L-erythritol 3-O-β-D-glucopyranoside**

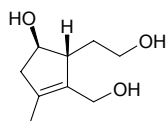
C<sub>10</sub>H<sub>20</sub>O<sub>8</sub> (268.27). Amorphous powder, [α]<sub>D</sub><sup>21</sup> = -29° (c = 0.1, MeOH). Source: HUI QIN *Pimpinella anisum* (fruit). Ref: 3402.

**5173 1-Deoxyeucommiol**

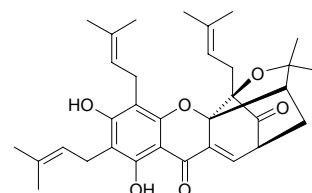
C<sub>9</sub>H<sub>16</sub>O<sub>3</sub> (172.23). Source: DU ZHONG *Eucommia ulmoides*. Ref: 2.

**5174 10-Deoxyeucommiol**

C<sub>9</sub>H<sub>16</sub>O<sub>3</sub> (172.23). Yellow oil, [α]<sub>D</sub><sup>17</sup> = -33.77° (c = 3.61, MeOH). Source: DIAO DENG SHU *Kigelia pinnata*. Ref: 3418.

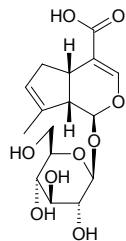
**5175 Deoxygaudichaudione A**

C<sub>33</sub>H<sub>40</sub>O<sub>6</sub> (532.68). Pharm: Cytotoxic (hmn leukemia); doxorubicin-resistant K562, IC<sub>50</sub> = (3.04±0.18)μg/mL, control Adriamycin, IC<sub>50</sub> = (1.79±0.17)μg/mL; drug-sensitive K562, IC<sub>50</sub> = (1.74±0.22)μg/mL, Adriamycin, IC<sub>50</sub> = (0.11±0.01)μg/mL. Source: TENG HUANG SHU *Garcinia hanburyi* (resin). Ref: 1583.

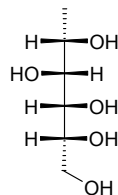


**5176 10-Deoxygeniposidic acid**

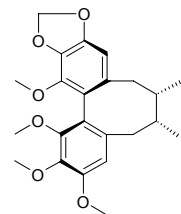
$C_{16}H_{22}O_9$  (358.35). White powder. Source: BO SI YI MU CAO *Leonurus persicus*. Ref: 2499.

**5177 1-Deoxy-D-glucitol**

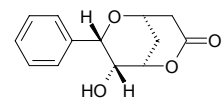
$C_6H_{14}O_5$  (166.18). Source: SHI LUO ZI *Anethum graveolens* (fruit). Ref: 4177.

**5178 Deoxygomisin A**

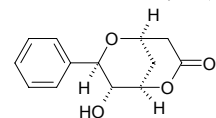
Schizandrin B; Schisandrin B; Wuweizisu B;  $\gamma$ -Schisandrin [61281-37-6]  $C_{23}H_{28}O_6$  (400.48). Rhombic crystals (methanol), mp 117–119°C,  $[\alpha]_D^{17} = -32^\circ$  (ethanol). Pharm: Antihepatotoxin; antitussive. Source: HONG HUA WU WEI ZI *Schisandra rubriflora*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], WU WEI ZI *Schisandra chinensis* (dried ripe fruit: content scope of 6 origins = 0.80%~5.00%, mean content = 2.68%<sup>[5508]</sup>). Ref: 2, 4, 39, 658, 1521, 5501, 5508.

**5179 (+)-9-Deoxygoniopyrone**

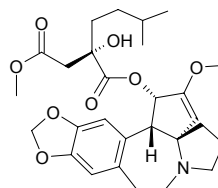
$C_{13}H_{14}O_4$  (234.25). Pharm: Cytotoxic inactive (HepG2, Hep3B, MDA-MB-231, MCF7)<sup>[5056]</sup>. Source: TAI WAN GE NA XIANG *Goniothalamus amuyon* (stem: yield = 0.00067%fw), TAI WAN GE NA XIANG *Goniothalamus amuyon* (leaf and stem). Ref: 4686, 5056.

**5180 Deoxygoniopyrone A**

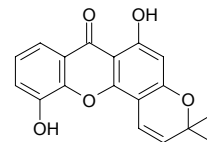
$C_{13}H_{14}O_4$  (234.25). Colorless needles, mp 170–172°C,  $[\alpha]_D^{23} = -35.5^\circ$  ( $c = 0.07$ , MeOH). Pharm: Cytotoxic inactive (HepG2, Hep3B, MDA-MB-231, MCF7). Source: TAI WAN GE NA XIANG *Goniothalamus amuyon* (leaf and stem). Ref: 5056.

**5181 Deoxyharringtonine**

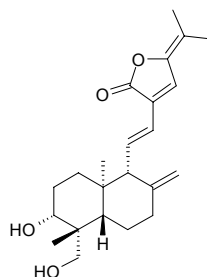
[36804-95-2]  $C_{28}H_{37}NO_8$  (515.61). Pharm: Antineoplastic (mouse P<sub>388</sub>, mouse spleen leukemic L<sub>615</sub>). Source: HAI NAN CU FEI *Cephalotaxus hainanensis* [Syn. *Cephalotaxus mannii*], RI BEN CU FEI *Cephalotaxus harringtonia*, SAN JIAN SHAN *Cephalotaxus fortunei* (drupe: yield = 0.00060%)<sup>[4675]</sup>, ZHONG GUO CU FEI ZHI YE *Cephalotaxus sinensis* [Syn. *Cephalotaxus harringtonia* var. *sinensis*]. Ref: 2, 5, 660, 4675.

**5182 6-Deoxyisojacareubin**

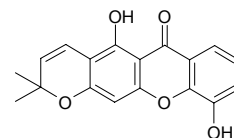
$C_{18}H_{14}O_5$  (310.31). Yellow needles, mp 218–220°C. Source: BIAN DI JIN *Hypericum wightianum* (whole herb). Ref: 4426.

**5183 14-Deoxy-15-isopropylidene-11,12-didehydroandrographolide**

$C_{23}H_{32}O_4$  (372.51). Colorless needles (MeOH), mp 207–209°C,  $[\alpha]_D^{28} = -21.8^\circ$  ( $c = 0.002$ , MeOH). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2036.

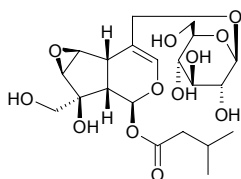
**5184 6-Deoxyjacareubin**

1,5-Dihydroxy-6',6'-dimethylpyrano(2',3':3,2)xanthone  $C_{18}H_{14}O_5$  (310.31). Pharm: Cytotoxic (HSC-2 cells,  $CC_{50} = 0.48$ mmol/L; HGF,  $CC_{50} > 0.65$ mmol/L)<sup>[3025]</sup>; anti-hypotension (PAF-induced,  $ID_{50} = (14.5 \pm 3.2)$   $\mu$ mol/kg, control Ginkgolide B,  $ID_{50} = (38.5 \pm 2.7)$   $\mu$ mol/kg, CV-3988,  $ID_{50} = (2.4 \pm 1.2)$   $\mu$ mol/kg)<sup>[5050]</sup>. Source: GOU JI *Cudrania cochinchinensis* (root: yield = 0.00013%dw)<sup>[3025]</sup>, HAI TANG GUO *Calophyllum inophyllum* (the compound was isolated from the plant by F.S.AL-Jeboury, et al. in 1971)<sup>[5055]</sup>, HAI TANG GUO *Calophyllum inophyllum* (root)<sup>[5050]</sup>, HEI XIAN TIAO TENG HUANG *Garcinia nigrolineata* (stam bark)<sup>[3482]</sup>. Ref: 3025, 3482, 5050, 5505.

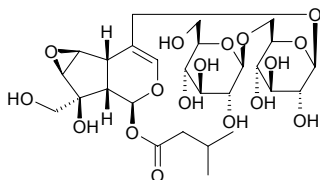


**5185 4'-Deoxykanokoside A**

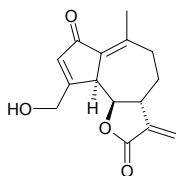
$C_{21}H_{32}O_{12}$  (476.48). Amorphous,  $[\alpha]_D^{20} = -122^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Cytostatic/cytotoxic ( $GI_{50} = 1\text{--}9\mu\text{g/mL}$ ). **Source:** CHANG HUA XIE CAO *Centranthus longiflorus* ssp. *longiflorus*. **Ref:** 2035.

**5186 4'-Deoxykanokoside C**

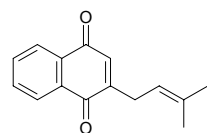
$C_{27}H_{42}O_{17}$  (638.63). Amorphous,  $[\alpha]_D^{20} = -107^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Cytostatic/cytotoxic ( $GI_{50} = 1\text{--}9\mu\text{g/mL}$ ). **Source:** CHANG HUA XIE CAO *Centranthus longiflorus* ssp. *longiflorus*. **Ref:** 2035.

**5187 8-Deoxylactucin**

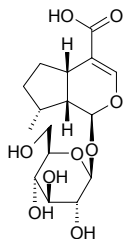
$C_{15}H_{16}O_4$  (260.29). **Pharm:** Antineoplastic; cytotoxic. **Source:** YE WO JU *Lactuca serriola*, JU QU *Cichorium intybus*. **Ref:** 658.

**5188 Deoxylapachol**

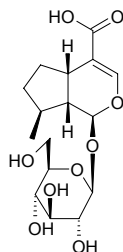
[3568-90-9]  $C_{15}H_{14}O_2$  (226.28). **Pharm:** Anthelmintic (termites); irritant (to skin). **Source:** ZI BAI PI *Catalpa ovata*, YOU MU *Tectona grandis*. **Ref:** 658.

**5189 7-Deoxy-8-epi-loganic acid**

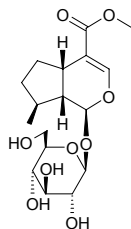
$C_{16}H_{24}O_9$  (360.36). Yellow powder,  $[\alpha]_D^{23} = -22.5^\circ$  ( $c = 0.50$ ,  $C_5H_5N$ ). **Pharm:** Antinociceptive (acetic acid-induced, 50mg/kg, orl, inhibitive percent = -5%, 100mg/kg, orl, inhibitive percent = 49%, 50mg/kg, sc, inhibitive percent = 0%, 100mg/kg, sc, inhibitive percent = 6%; control Aminopyrine, 50mg/kg, orl, inhibitive percent = 87%, 50mg/kg, sc, inhibitive percent = 94%)<sup>[3908]</sup>. **Source:** BO SI YI MU CAO *Leonurus persicus*, MA TONG HUA *Incarvillea arguta*, ROU CONG RONG *Cistanche deserticola*. **Ref:** 2448, 2499, 3908.

**5190 C-8-(S)-7-Deoxyloganic acid**

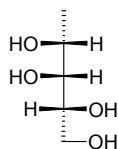
$C_{16}H_{24}O_9$  (360.36). **Source:** BI LU GOU TENG *Uncaria tomentosa* (inner bark). **Ref:** 5161.

**5191 Deoxyloganin**

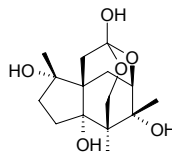
[26660-57-1]  $C_{17}H_{26}O_9$  (374.39). **Pharm:** Laxative. **Source:** *Strychnos* sp., *Vinca* sp., *Menyanthes* sp. **Ref:** 658.

**5192 1-Deoxy-D-lyxitol**

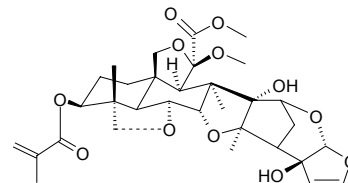
$C_5H_{12}O_4$  (136.15). Amorphous powder,  $[\alpha]_D^{24} = -23^\circ$  ( $c = 1.1$ , MeOH). **Source:** BEI SHA SHEN *Glehnia littoralis* (fruit). **Ref:** 3525.

**5193 8-Deoxymerrilliortholactone**

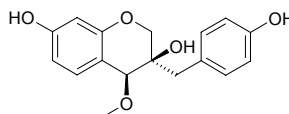
$C_{15}H_{24}O_6$  (300.35). **Source:** *Illicium merrillianum* (pericarp). **Ref:** 4257.

**5194 1-Deoxy-3-methacrylyl-11-methoxymeliacarpinin**

[177795-23-2]  $C_{32}H_{42}O_{12}$  (618.68). Colorless powder, mp 274~276°C (chloroform),  $[\alpha]_D = -16.3^\circ$  ( $c = 0.2$ , chloroform). **Pharm:** Cytotoxic ( $P_{388}$ ,  $IC_{50} = 47.0\mu\text{g/mL}$ ). **Source:** KU LIAN PI *Melia azedarach*. **Ref:** 1104.

**5195 3'-Deoxy-4-O-methylsappanol**

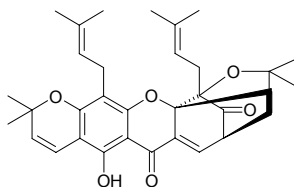
$C_{17}H_{18}O_5$  (302.33). **Source:** SU MU *Caesalpinia sappan* (heartwood). **Ref:** 4494.



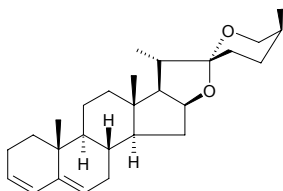


**5196 Deoxymorellin**

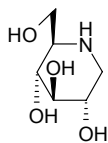
Deoxymorellin C<sub>33</sub>H<sub>38</sub>O<sub>6</sub> (530.67). mp 126°C. **Pharm:** Cytotoxic (HeLa and HEL, MIC = 0.39 µg/mL). **Source:** TENG HUANG *Garcinia morella*. **Ref:** 1081, 1099, 1172.

**5197 Δ<sup>3,5</sup>-Deoxyneotigogenin**

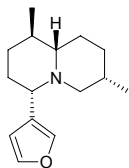
C<sub>27</sub>H<sub>40</sub>O<sub>2</sub> (396.62). **Source:** CHA RUI SHU YU *Dioscorea collettii*, BI XIE *Dioscorea hypoglauca* [Syn. *Dioscorea collettii* var. *hypoglauca*]. **Ref:** 10.

**5198 1-Deoxynojirimycin**

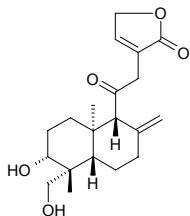
Moranoline [19130-96-2] C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub> (163.17). **Pharm:** α-Glucosidase inhibitor (IC<sub>50</sub> = 0.3 mmol/L)<sup>[4155]</sup>. **Source:** SANG ZHI *Morus alba*. **Ref:** 2170, 4155.

**5199 Deoxynupharidine**

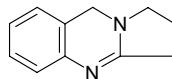
[1143-54-0] C<sub>15</sub>H<sub>23</sub>NO (233.36). **Pharm:** Anesthetic (rhizoma of source plant RI BEN PING PENG CAO *Nuphar japonicum*); sedative (rhizoma of source plant RI BEN PING PENG CAO *Nuphar japonicum*). **Source:** RI BEN PING PENG CAO *Nuphar japonicum*, OU ZHOU PING PENG CAO *Nuphar luteum*. **Ref:** 658.

**5200 14-Deoxy-11-oxoandrographolide**

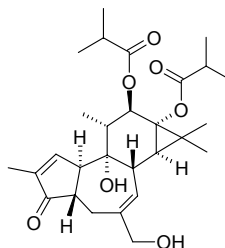
[42895-57-8] C<sub>20</sub>H<sub>28</sub>O<sub>5</sub> (348.44). mp 98–100°C. **Source:** CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*], JI XING ZI *Impatiens balsamina*. **Ref:** 2, 6.

**5201 Deoxypeganine**

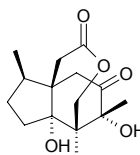
[495-59-0] C<sub>11</sub>H<sub>12</sub>N<sub>2</sub> (172.23). mp 87–88°C. **Pharm:** Cholinergic. **Source:** LUO TUO PENG *Peganum harmala*. **Ref:** 6, 658.

**5202 4-Deoxyphorbol 12,13-bis(isobutyrate)**

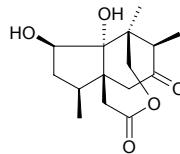
[250258-02-7] C<sub>28</sub>H<sub>40</sub>O<sub>7</sub> (488.63). Oil, [α]<sub>D</sub> = +47° (c = 0.64, CHCl<sub>3</sub>). **Source:** DUN YE DA JI *Euphorbia obtusifolia* var. *obtusifolia*. **Ref:** 2365.

**5203 3-Deoxypseudoanisatin**

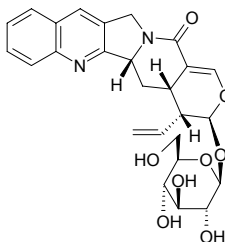
C<sub>15</sub>H<sub>22</sub>O<sub>5</sub> (282.34). [α]<sub>D</sub><sup>18</sup> = –40.2° (c = 0.44, MeOH). **Source:** *Illicium merrillianum* (pericarp). **Ref:** 4257.

**5204 6-Deoxypseudoanisatin**

7-Deoxypseudoanisatin C<sub>15</sub>H<sub>22</sub>O<sub>5</sub> (282.34). White acicular crystals (acetic ester), mp 235–237°C, [α]<sub>D</sub><sup>25</sup> = +15.5° (c = 1.406, ethanol). **Source:** HONG HUI XIANG *Illicium henryi*, MIN WAN BA JIAO *Illicium minwanense* (pericarp: yield = 0.0054%<sub>dw</sub>)<sup>[4697]</sup>. **Ref:** 100, 315, 1521, 4697.

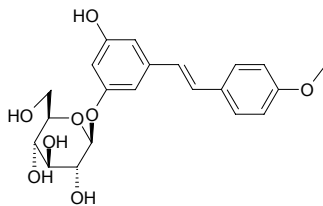
**5205 (3R)-Deoxypumiloside**

C<sub>26</sub>H<sub>28</sub>N<sub>2</sub>O<sub>8</sub> (496.52). **Source:** LIU QIU SHE GEN CAO *Ophiorrhiza liukuensis* (whole herb). **Ref:** 4527.

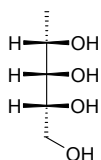


**5206 Deoxyrhaponticin**

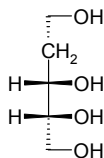
4'-*O*-Methyl piceid [36469-58-6] C<sub>21</sub>H<sub>24</sub>O<sub>8</sub> (404.42). **Pharm:** α-Glucosidase inhibitor (IC<sub>50</sub> = 280 μg/mL). **Source:** TIAN SHAN DA HUANG *Rheum wittrockii*, ZHANG YE DA HUANG *Rheum palmatum*. **Ref:** 2, 609, 660, 1438, 1780.

**5207 1-Deoxy-D-ribitol**

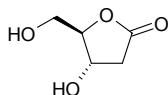
C<sub>5</sub>H<sub>12</sub>O<sub>4</sub> (136.15). **Source:** SHI LUO ZI *Anethum graveolens* (fruit). **Ref:** 4177.

**5208 2-Deoxy-D-ribitol**

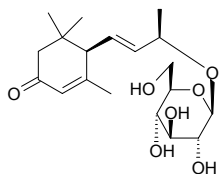
C<sub>5</sub>H<sub>12</sub>O<sub>4</sub> (136.15). Colorless syrup, [α]<sub>D</sub><sup>22</sup> = -17°. **Source:** BEI SHA SHEN *Glehnia littoralis* (fruit). **Ref:** 3525.

**5209 2-Deoxy-D-ribo-1,4-lactone**

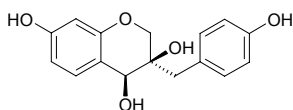
Dihydro-4-hydroxy-5-hydroxymethyl-2(3*H*)-furanone C<sub>5</sub>H<sub>8</sub>O<sub>4</sub> (132.12). Colorless oil liquid. **Source:** SHI LUO ZI *Anethum graveolens* (fruit), WEI LING XIAN *Clematis chinensis*. **Ref:** 871, 2079, 4177.

**5210 (6*S*,9*R*)-Deoxyroseoside**

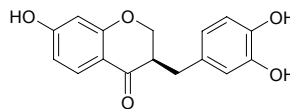
C<sub>19</sub>H<sub>30</sub>O<sub>7</sub> (370.45). **Source:** LIU QIU SHE GEN CAO *Ophiorrhiza liukuensis* (whole herb). **Ref:** 4527.

**5211 3'-Deoxysappanol**

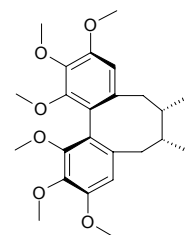
C<sub>16</sub>H<sub>16</sub>O<sub>5</sub> (288.30). **Source:** SU MU *Caesalpinia sappan* (heartwood). **Ref:** 4494.

**5212 3-Deoxysappanone B**

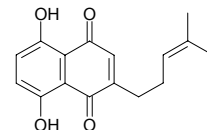
C<sub>16</sub>H<sub>14</sub>O<sub>5</sub> (286.29). **Pharm:** Xanthine oxidase inhibitor (noncompetitive inhibitory activity in concentration-dependent manner, IC<sub>50</sub> = 36.8 μmol/L, K<sub>i</sub> = 27.4 μmol/L, control Allopurinol, competitive type, IC<sub>50</sub> = 2.5 μmol/L, K<sub>i</sub> = 1.80 μmol/L). **Source:** SU MU *Caesalpinia sappan* (heartwood). **Ref:** 4494.

**5213 Deoxyschizandrin**

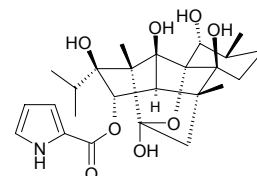
Wuweizisu A; Schizandrin A [61281-38-7] C<sub>24</sub>H<sub>32</sub>O<sub>6</sub> (416.52). [α]<sub>D</sub><sup>23</sup> = +86.7° (c = 0.30, CHCl<sub>3</sub>). **Pharm:** Antihepatotoxin (mus, due to carbon tetrachloride, promotes markedly glycogenic in liver); NFAT transcription inhibitor (IC<sub>50</sub> = (7.23±0.21) μmol/L, control Cyclosporin A, IC<sub>50</sub> = (1.20±0.29) nmol/L)<sup>[5343]</sup>. **Source:** HONG HUA WU WEI ZI *Schisandra rubriflora*, HUA ZHONG WU WEI ZI *Schisandra sphenanthera* (dried ripe fruit: content scope of 12 origins = 0.07%~5.65%, mean content = 1.65%<sup>[5508]</sup>), WU WEI ZI *Schisandra chinensis* (dried ripe fruit: content scope of 6 origins = 0.17%~1.10%, mean content = 0.52%<sup>[5508]</sup>). **Ref:** 2, 658, 5343, 5508.

**5214 Deoxyshikonin**

[43043-74-9] C<sub>16</sub>H<sub>16</sub>O<sub>4</sub> (272.30). **Pharm:** Antibacterial (*Staphylococcus aureus* 209P, MIC = 40 μg/kg; *Staphylococcus aureus* TPR27, MIC = 20 μg/kg; *Staphylococcus epidermidis* TPR25, MIC = 80 μg/kg; *Sarcina lutea* NIHJ, MIC = 40 μg/kg; *Bacillus subtilis*, MIC = 40 μg/kg). **Source:** JIA ZI CAO *Arnebia guttata*, XIN ZANG JIA ZI CAO *Arnebia euchroma* (root: mean content of 3 origins = 0.174%<sup>[5508]</sup>), ZI CAO *Lithospermum erythrorhizon*. **Ref:** 2, 658, 660, 5501, 5508.

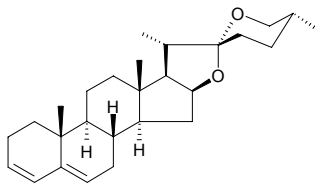
**5215 20-Deoxyspiganthine**

C<sub>25</sub>H<sub>35</sub>NO<sub>8</sub> (477.56). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 1:1), mp 144~147°C, [α]<sub>D</sub> = +12° (c = 0.1). **Pharm:** Cardiac contraction inhibitor (guinea-pig papillary muscle, causes a prolongation of the latency time and decrease of contraction force, EC<sub>50</sub> = 54 nmol/L). **Source:** QU CHONG CAO *Spigelia anthelmia* (aerial parts). **Ref:** 5139.

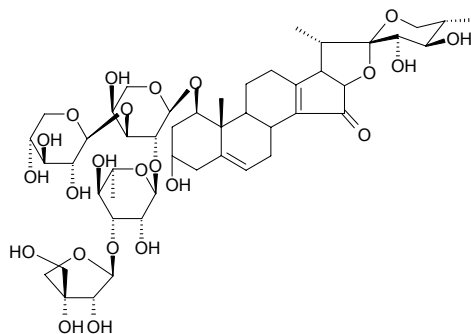


**5216 4<sup>3,5</sup>-Deoxytigogenin**

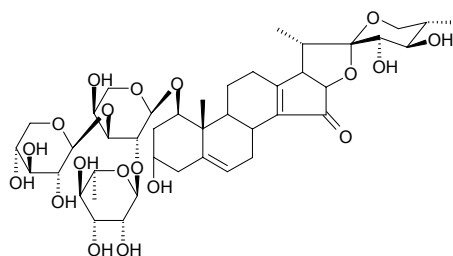
$C_{27}H_{40}O_2$  (396.62). Source: CHA RUI SHU YU *Dioscorea collettii*, CHAI HUANG JIANG *Dioscorea nipponica* ssp. *rosthornii*, CHUAN LONG SHU YU *Dioscorea nipponica*, DUN YE SHU YU *Dioscorea zingiberensis*, BI XIE *Dioscorea hypoglauca* [Syn. *Dioscorea collettii* var. *hypoglauca*], FU ZHOU SHU YU *Dioscorea futschauensis*, HUANG SHAN YAO *Dioscorea panthaica*, MIAN BI XIE *Dioscorea septemloba*, SHU KUI YE SHU YU *Dioscorea althaeoides*, XIAN XI SHU YU *Dioscorea gracillima*, XIAO HUA DUN YE SHU YU *Dioscorea parviflora*. Ref: 6, 10, 660.

**5217 Deoxytrillenoid A**

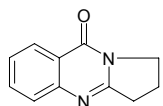
$C_{47}H_{70}O_{23}$  (1003.07). Amorphous powder,  $[\alpha]_D^{25} = -113.2^\circ$  ( $c = 0.8$ , MeOH). Source: JI LIN YAN LING CAO *Trillium kamschaticum* (underground part). Ref: 4403.

**5218 Deoxytrillenoid B**

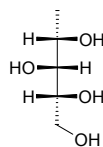
$C_{42}H_{62}O_{19}$  (870.95). Source: JI LIN YAN LING CAO *Trillium kamschaticum* (underground part). Ref: 4403.

**5219 Deoxyvasicinone**

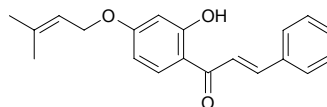
[530-53-0]  $C_{11}H_{10}N_2O$  (186.22). mp 109~110°C. Pharm: Cholinergic. Source: LUO TUO HAO *Peganum nigellastrum*, LUO TUO PENG *Peganum harmala*, LUO TUO PENG ZI *Peganum harmala*. Ref: 6, 658.

**5220 1-Deoxy-D-xylitol**

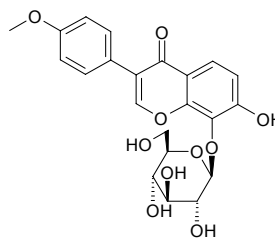
$C_5H_{12}O_4$  (136.15). Source: SHI LUO ZI *Anethum graveolens* (fruit). Ref: 4177.

**5221 Derricidin**

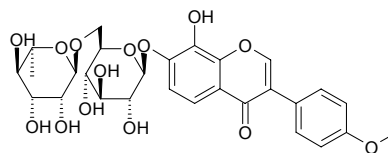
$C_{20}H_{20}O_3$  (308.38). Source: HONG E JI XUE TENG *Milletia erythrocalyx* (stem cortex; yield = 0.0013%dw). Ref: 4624.

**5222 Derriscandenoid A**

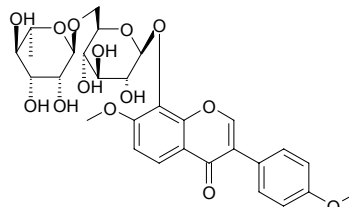
7,8-Dihydroxy-4'-methoxyisoflavone-8-O-β-glucopyranoside  $C_{22}H_{22}O_{10}$  (446.41). Colorless viscous gum,  $[\alpha]_D^{29} = -55.56^\circ$  ( $c = 0.36$ ,  $CHCl_3$ ). Source: PAN YUAN YU TENG *Derris scandens*. Ref: 1976.

**5223 Derriscandenoid B**

7,8-Dihydroxy-4'-methoxyisoflavone 7-O-[α-rhamnopyranosyl-(1→6)]-β-glucopyranoside  $C_{28}H_{32}O_{14}$  (592.56). Colorless viscous gum,  $[\alpha]_D^{29} = -51.47^\circ$  ( $c = 1.36$ ,  $CHCl_3$ ). Source: PAN YUAN YU TENG *Derris scandens*. Ref: 1976.

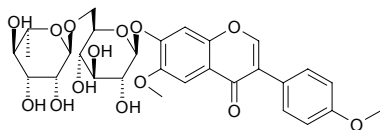
**5224 Derriscandenoid C**

8-Hydroxy-4',7-dimethoxyisoflavone 8-O-[α-rhamnopyranosyl-(1→6)]-β-glucopyranoside  $C_{29}H_{34}O_{14}$  (606.59). Colorless viscous gum,  $[\alpha]_D^{29} = -40.54^\circ$  ( $c = 0.74$ ,  $CHCl_3$ ). Source: PAN YUAN YU TENG *Derris scandens*. Ref: 1976.

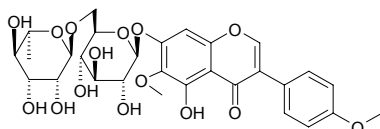


**5225 Derriscandenoside D**

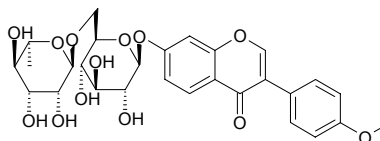
Afromosin 7-*O*-[ $\alpha$ -rhamnopyranosyl-(1 $\rightarrow$ 6)]- $\beta$ -glucopyranoside  
 $C_{29}H_{34}O_{14}$  (606.59). Colorless viscous gum,  $[\alpha]_D^{29} = -68.18^\circ$  ( $c = 0.44$ ,  $CHCl_3$ ). **Source:** PAN YUAN YU TENG *Derris scandens*. **Ref:** 1976.

**5226 Derriscandenoside E**

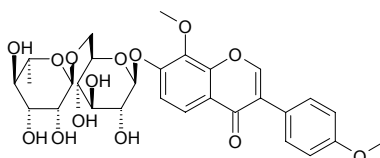
$C_{29}H_{34}O_{15}$  (622.59). Colorless viscous gum,  $[\alpha]_D^{29} = -90.90^\circ$  ( $c = 0.11$ ,  $CHCl_3$ ). **Source:** PAN YUAN YU TENG *Derris scandens*. **Ref:** 1976.

**5227 Derriscandenoside A**

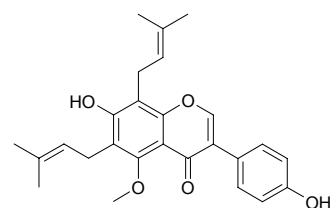
$C_{28}H_{32}O_{13}$  (576.56). Light yellow powder, mp 115–117°C. **Pharm:** Antioxidant (DPPH scavenger, 10  $\mu$ mol/L, ScRt = 18%, control BHT, 10  $\mu$ mol/L, ScRt = 43%)<sup>[5319]</sup>. **Source:** PAN YUAN YU TENG *Derris scandens*, TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). **Ref:** 664, 5319.

**5228 Derriscandenoside B**

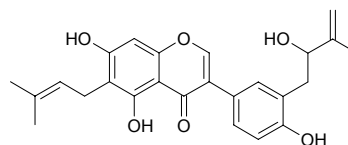
$C_{29}H_{34}O_{14}$  (606.59). Light yellow powder, mp 145–147°C. **Source:** PAN YUAN YU TENG *Derris scandens*. **Ref:** 664.

**5229 Derrisoflavone A**

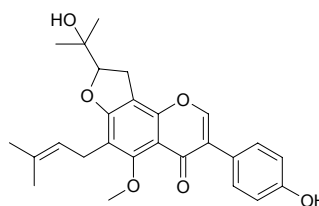
$C_{26}H_{28}O_5$  (420.51). Pale yellow amorphous, with yellow fluorescence. **Pharm:** Antifungal (dermatophyte *Trichophyton mentagrophytes*, 500–1000  $\mu$ g/mL)<sup>[2347]</sup>; antioxidant (DPPH scavenger, ScRt = 81.58%, control BHT, ScRt = 71.5%)<sup>[3810]</sup>; antibacterial (*Staphylococcus aureus* ATCC 25923, MIC = 16  $\mu$ g/mL, Vancomycin, MIC = 0.5  $\mu$ g/mL; MRSA SK1, MIC = 4  $\mu$ g/mL, Vancomycin, MIC = 1.0  $\mu$ g/mL)<sup>[3810]</sup>; increases blood pressure (anesthetized rats, increases in mean arterial blood pressure, 4.0 mg/kg, 7.5 mmHg)<sup>[3810]</sup>. **Source:** PAN YUAN YU TENG *Derris scandens*. **Ref:** 2347, 3810.

**5230 Derrisoflavone B**

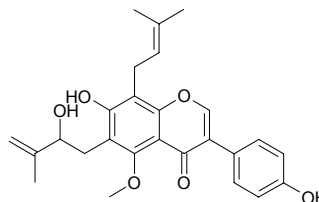
$C_{25}H_{26}O_6$  (422.48). Pale brown amorphous,  $[\alpha]_D = +3.0^\circ$  ( $c = 0.054$ , EtOH). **Pharm:** Antifungal (dermatophyte *Trichophyton mentagrophytes*, 500–1000  $\mu$ g/mL). **Source:** PAN YUAN YU TENG *Derris scandens*. **Ref:** 2347.

**5231 Derrisoflavone C**

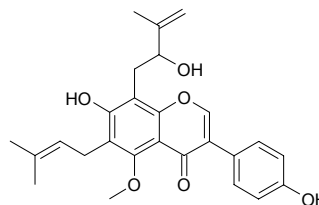
$C_{26}H_{28}O_6$  (436.51). Colorless amorphous,  $[\alpha]_D = -63.8^\circ$  ( $c = 0.043$ , EtOH). **Pharm:** Antifungal (dermatophyte *Trichophyton mentagrophytes*, 250  $\mu$ g/mL). **Source:** PAN YUAN YU TENG *Derris scandens*. **Ref:** 2347.

**5232 Derrisoflavone D**

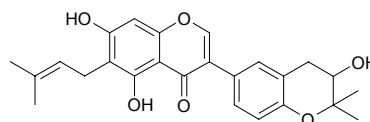
$C_{26}H_{28}O_6$  (436.51). Colorless amorphous,  $[\alpha]_D = -10.8^\circ$  ( $c = 0.088$ , EtOH). **Pharm:** Antifungal (dermatophyte *Trichophyton mentagrophytes*, 500–1000  $\mu$ g/mL). **Source:** PAN YUAN YU TENG *Derris scandens*. **Ref:** 2347.

**5233 Derrisoflavone E**

$C_{26}H_{28}O_6$  (436.51). Pale brown amorphous,  $[\alpha]_D = +2.0^\circ$  ( $c = 0.089$ , EtOH). **Pharm:** Antifungal (dermatophyte *Trichophyton mentagrophytes*, 500–1000  $\mu$ g/mL). **Source:** PAN YUAN YU TENG *Derris scandens*. **Ref:** 2347.

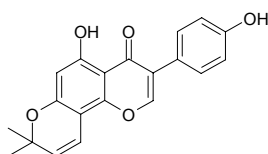
**5234 Derrisoflavone F**

$C_{25}H_{26}O_6$  (422.48). Colorless amorphous,  $[\alpha]_D = +20.6^\circ$  ( $c = 0.12$ , EtOH). **Pharm:** Antifungal (dermatophyte *Trichophyton mentagrophytes*, 500–1000  $\mu$ g/mL). **Source:** PAN YUAN YU TENG *Derris scandens*. **Ref:** 2347.

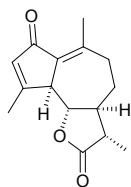


**5235 Derrone**

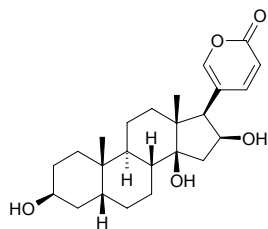
5-Hydroxy-3-(4-hydroxyphenyl)-8,8-dimethyl-4*H*,8*H*-benzo[1,2-*b*:3,4-*b'*]dipyran-4-one [76166-59-1] C<sub>20</sub>H<sub>16</sub>O<sub>5</sub> (336.35). **Pharm:** Antibacterial (*Escherichia coli*, MIA = 100.0µg, control Chloramphenicol, MIA = 0.001µg; *Bacillus subtilis*, MIA = 20.0µg, Chloramphenicol, MIA = 0.001µg; *Staphylococcus aureus*, MIA = 0.1µg, Chloramphenicol, MIA = 0.001µg)<sup>[3785]</sup>; antifungal (*Candida mycoderma*, MIA = 1.00µg, Miconazole, MIA = 0.0001µg)<sup>[3785]</sup>; hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by *D*-galactosamine (GalN), 100µmol/L, InRt = (4.0±1.0)%, inactive, control Silybin, 100µmol/L, InRt = (77.0±5.5)%<sup>[4095]</sup>). **Source:** CU ZHUANG YU TENG *Derris robusta* (seed), GUANG BU DING GONG TENG *Erycibe expansa*, *Bolusanthus speciosus* (root wood). **Ref:** 3785, 4095.

**5236 Desacetoxymatricarin**

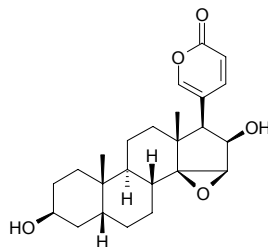
[17946-87-1] C<sub>15</sub>H<sub>18</sub>O<sub>3</sub> (246.31). **Pharm:** Antineoplastic; cytotoxic; plant growth inhibitor. **Source:** BAN GUAN MU MU JU *Matricaria suffruticosa*, *Achillea* sp., *Artemisia* sp. **Ref:** 658.

**5237 Desacetylbufotalin**

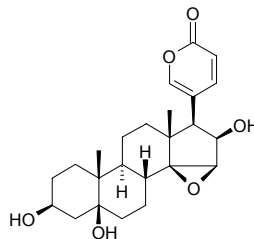
C<sub>24</sub>H<sub>34</sub>O<sub>5</sub> (402.54). **Pharm:** Cytotoxic (*in vitro*, KB, IC<sub>50</sub> = 0.79µg/mL; HL-60, IC<sub>50</sub> = 0.025µg/mL; MH-60, IC<sub>50</sub> > 25µg/mL)<sup>[3082]</sup>. **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. **Ref:** 2, 6, 3082.

**5238 Desacetylcinobufagin**

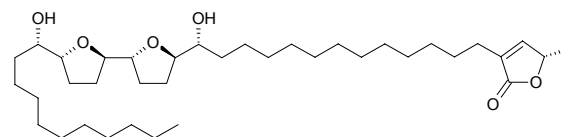
C<sub>24</sub>H<sub>32</sub>O<sub>5</sub> (400.52). **Pharm:** Cytotoxic (*in vitro*, KB, IC<sub>50</sub> = 0.44µg/mL; HL-60, IC<sub>50</sub> = 1µg/mL; MH-60, IC<sub>50</sub> > 25µg/mL)<sup>[3082]</sup>. **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. **Ref:** 2, 6, 3082.

**5239 Desacetylcinobufotalin**

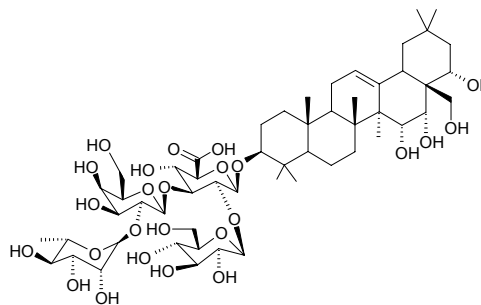
C<sub>24</sub>H<sub>32</sub>O<sub>6</sub> (416.52). **Pharm:** Cytotoxic (*in vitro*, KB, IC<sub>50</sub> = 10µg/mL; HL-60, IC<sub>50</sub> = 4.3µg/mL; MH-60, IC<sub>50</sub> > 25µg/mL)<sup>[3082]</sup>. **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. **Ref:** 2, 6, 3082.

**5240 Desacetylvaricin**

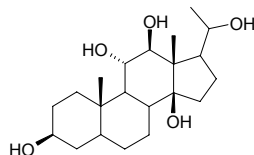
[98767-45-4] C<sub>37</sub>H<sub>66</sub>O<sub>6</sub> (606.93). Colorless oil, [α]<sub>D</sub><sup>25</sup> = +30.3° (c = 0.26, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (hmn hepatoma cell lines HepG2, IC<sub>50</sub> = 0.062ng/mL, control Adriamycin, IC<sub>50</sub> = 0.241µg/mL; hmn hepatoma cells transfected with hepatitis B virus Hep2,2,15, IC<sub>50</sub> = 0.071ng/mL, Adriamycin, IC<sub>50</sub> = 0.450µg/mL). **Source:** CI GUO FAN LI ZHI *Annona muricata*. **Ref:** 5377.

**5241 Desacyl-boninsaponin A**

C<sub>54</sub>H<sub>88</sub>O<sub>25</sub> (1137.29). **Source:** RI BEN HOU PI XIANG *Ternstroemia japonica* (fresh fruit: yield = 0.00066%fw). **Ref:** 4730.

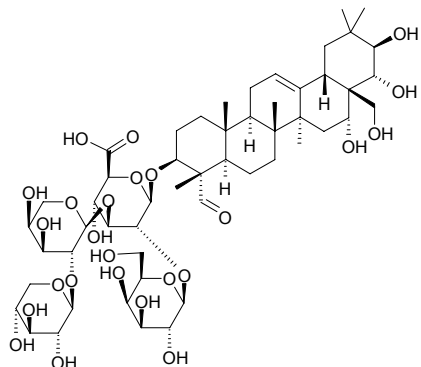
**5242 Desacylkondurangogenin C**

C<sub>21</sub>H<sub>36</sub>O<sub>5</sub> (368.52). White amorphous powder, mp 127°C, [α]<sub>D</sub> = +135.6° (c = 0.14, CHCl<sub>3</sub>). **Source:** ROU LEI NIU NAI CAI *Marsdenia roylei* (aerial parts). **Ref:** 3490.

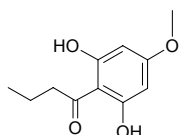


**5243 Desacyl-theasaponin E**

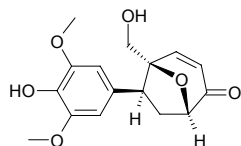
$C_{52}H_{82}O_{25}$  (1107.22). Source: PU ER CHA *Camellia sinensis* var. *assamica* (seed and leaf). Ref: 4537.

**5244 Desaspidinol**

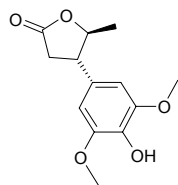
[437-72-9]  $C_{11}H_{14}O_4$  (210.23). Source: GUAN ZHONG *Dryopteris crassirhizoma*. Ref: 6, 1521.

**5245 Descurainin**

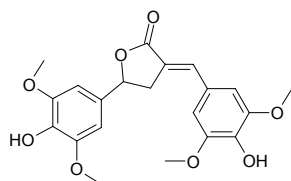
5-Hydroxymethyl-6-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxa-bicyclo[3,2,1]oct-3-en-2-one  $C_{16}H_{18}O_6$  (306.32). Colorless needles, mp 193~195°C,  $[\alpha]_D^{20} = +1.7^\circ$  ( $c = 0.23$ , MeOH). Source: BO NIANG HAO *Descurainia Sophia* (seeds). Ref: 2548.

**5246 Descurainolide A**

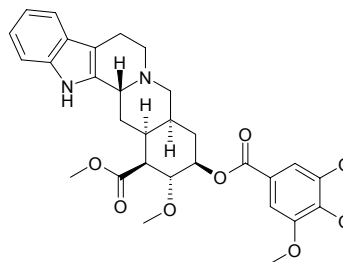
4-(4-Hydroxy-3,5-dimethoxy-phenyl)-5-methyl-dihydro-furan-2-one  $C_{13}H_{16}O_5$  (252.27). Colorless needles, mp 117~118°C,  $[\alpha]_D^{20} = +0.3^\circ$  ( $c = 0.19$ , Me<sub>2</sub>CO). Source: BO NIANG HAO *Descurainia Sophia* (seeds). Ref: 2548.

**5247 Descurainolide B**

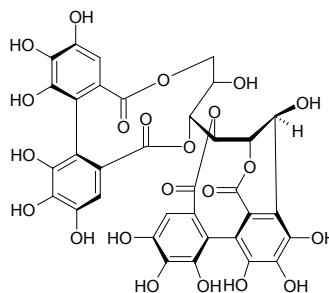
*trans*-3-(4-Hydroxy-3,5-dimethoxy-benzylidene)-5-(4-hydroxy-3,5-dimethoxy-phenyl)-dihydrofuran-2-one  $C_{21}H_{22}O_8$  (402.40). Colorless needles, mp 201~203°C,  $[\alpha]_D^{20} = +2.3^\circ$  ( $c = 0.37$ , MeOH). Source: BO NIANG HAO *Descurainia Sophia* (seeds). Ref: 2548.

**5248 Deserpidine**

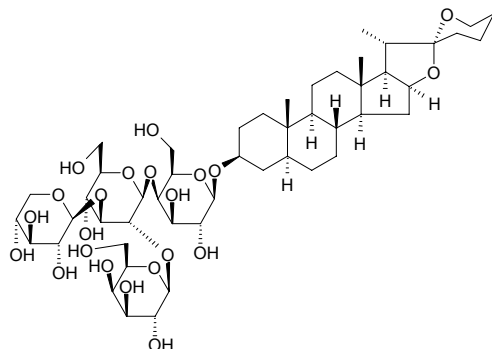
[131-01-1]  $C_{32}H_{38}N_2O_8$  (578.67). Three crystals types (methanol):  $\alpha$ -, mp 228~232°C;  $\beta$ -, mp 230~232°C;  $\gamma$ -, mp 138°C and 226~232°C (two-melting points, 173 solidifying),  $[\alpha]_D^{20} = -163^\circ$  ( $c = 0.5$ , pyridine). Pharm: CNS depressant; antihypertensive. Source: CUI TU LUO FU MU *Rauwolfia vomitoria*, GU BA LUO FU MU *Rauwolfia cubana*, HAI BIN LUO FU MU *Rauwolfia littoralis*, HUI BAI MAO LUO FU MU *Rauwolfia canescens*, YIN DU LUO FU MU *Rauwolfia serpentina*. Ref: 661.

**5249 5-Desgalloylstachyurin**

$C_{34}H_{24}O_{22}$  (784.56). Source: BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (fresh fruit: yield = 0.015%fw). Ref: 4695.

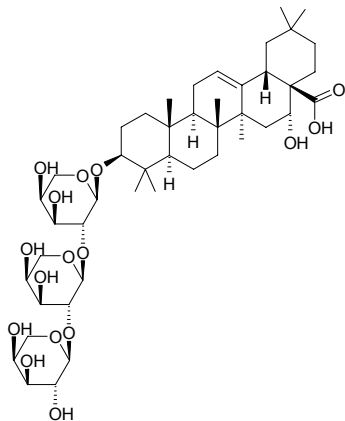
**5250 Desglucolanatigonin II**

[40043-49-0]  $C_{50}H_{82}O_{22}$  (1035.20). Amorphous powder,  $[\alpha]_D^{28} = -38.7^\circ$  ( $c = 0.10$ , chloroform : methanol = 1:1). Pharm: cAMP phosphodiesterase inhibitor ( $IC_{50} = 123\mu\text{mol/L}$ ). Source: CI JI LI *Tribulus terrestris*. Ref: 706, 738, 951.

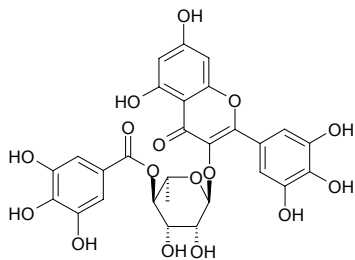


**5251 Desglucosusennin**

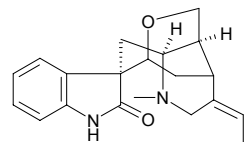
C<sub>45</sub>H<sub>72</sub>O<sub>16</sub> (869.07). **Pharm:** Anthelmintic. **Source:** QU CHONG HE HUAN *Albizzia anthelmintica*. **Ref:** 658.

**5252 Desmanthin 2**

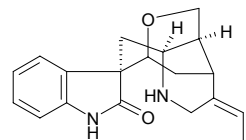
[85541-03-3] C<sub>28</sub>H<sub>24</sub>O<sub>16</sub> (616.49). Yellow powder, mp 196°C. **Source:** YI LI NUO HE HUAN CAO *Desmanthus illinoensis*. **Ref:** 1521.

**5253 N-Desmethoxyhumantenine**

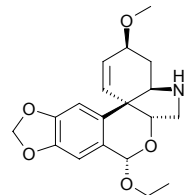
C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub> (324.43). mp 238–240°C, [α]<sub>D</sub> = –188.5°. **Source:** GOU WEN *Gelsemium elegans*. **Ref:** 14.

**5254 N-Desmethoxyrankinidine**

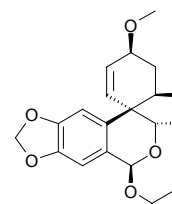
[122590-02-7] C<sub>19</sub>H<sub>22</sub>N<sub>2</sub>O<sub>2</sub> (310.40). mp 258–260°C, [α]<sub>D</sub> = –169.2°. **Source:** GOU WEN *Gelsemium elegans*. **Ref:** 14.

**5255 N-Desmethyl-8α-ethoxy pretazettine**

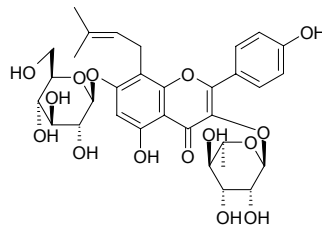
C<sub>19</sub>H<sub>23</sub>NO<sub>5</sub> (345.40). Amorphous, [α]<sub>D</sub><sup>28</sup> = +160.63° (c = 0.09, CHCl<sub>3</sub>). **Pharm:** AChE inhibitor (IC<sub>50</sub> = (234±13)μmol/L, control Galanthamine, IC<sub>50</sub> = (1.9±0.2)μmol/L)<sup>[4952]</sup>. **Source:** LIN JING ZHONG ZI WEN SHU LAN *Crinum bulbispermum*. **Ref:** 2369, 4952.

**5256 N-Desmethyl-8β-ethoxy pretazettine**

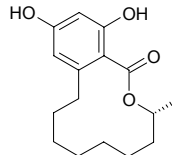
C<sub>19</sub>H<sub>23</sub>NO<sub>5</sub> (345.40). Amorphous, [α]<sub>D</sub><sup>28</sup> = +34° (c = 0.14, CHCl<sub>3</sub>). **Pharm:** AChE inhibitor (IC<sub>50</sub> = (419±8)μmol/L, control Galanthamine, IC<sub>50</sub> = (1.9±0.2)μmol/L)<sup>[4952]</sup>. **Source:** LIN JING ZHONG ZI WEN SHU LAN *Crinum bulbispermum*. **Ref:** 2369, 4952.

**5257 Des-O-methylcariin**

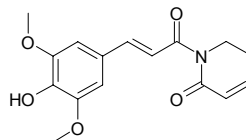
Epimesoside A [39012-04-9] C<sub>32</sub>H<sub>38</sub>O<sub>15</sub> (662.65). mp 235–237°C. **Source:** CU MAO YIN YANG HUO *Epimedium acuminatum*, CHUAN E YIN YANG HUO *Epimedium fargesii*, YIN YANG HUO *Epimedium brevicornum*, YIN YANG HUO GEN *Epimedium brevicornum*. **Ref:** 2, 6, 112, 514, 567, 624.

**5258 Des-O-methylasiodiplodin**

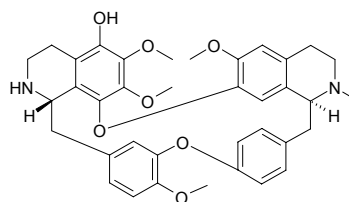
C<sub>16</sub>H<sub>22</sub>O<sub>4</sub> (278.35). **Pharm:** Prostaglandin biosynthesis inhibitor (20μg/mL, InRt = 62.5%). **Source:** ZI CAO *Lithospermum erythrorhizon*, XIN ZANG JIA ZI CAO *Arnebia euchroma*. **Ref:** 2193.

**5259 4'-Desmethylpiplartine**

*N*-(4'-Hydroxy-3',5'-dimethoxycinnamoyl)-2'-pyridin-2-one C<sub>16</sub>H<sub>17</sub>NO<sub>5</sub> (303.32). Yellow oil. **Source:** *Piper cenocladum* (leaf). **Ref:** 3896.

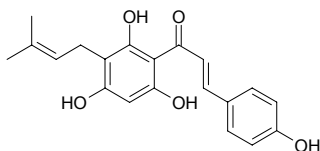
**5260 N-Desmethylthalidezine**

[65230-06-0] C<sub>37</sub>H<sub>40</sub>N<sub>2</sub>O<sub>7</sub> (624.74). Colorless acicular crystals (methanol), mp 173–174°C, [α]<sub>D</sub><sup>25</sup> = +280° (c = 0.14, methanol). **Pharm:** Antihypertensive (dog, rat). **Source:** BING GUO TANG SONG CAO *Thalictrum podocarpum*. **Ref:** 661.

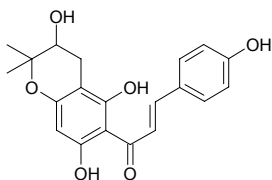


**5261 Desmethylxanthohumol**

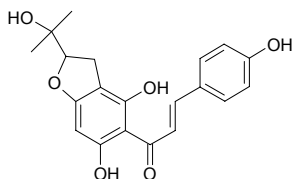
$C_{20}H_{20}O_5$  (340.38). Source: PI JIU HUA *Humulus lupulus* (strobile). Ref: 4789.

**5262 Desmethylxanthohumol B**

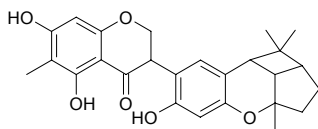
(±)-{(2*E*)-1-(3,4-Dihydro-3,5,7-trihydroxy-2,2-dimethyl-2*H*-1-benzopyran-6-yl)-3-(4-hydroxyphenyl)-2-propen-1-one}; DMX-B  $C_{20}H_{20}O_6$  (356.38). Yellow orange solid. Source: PI JIU HUA *Humulus lupulus* (strobile). Ref: 4789.

**5263 Desmethylxanthohumol J**

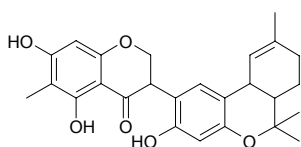
(2*E*)-1-[2,3-Dihydro-4,6-dihydroxy-2-(1-hydroxy-1-methylethyl)-7-benzofuranyl]-3-(4-hydroxyphenyl)-2-propen-1-one; DMX-J  $C_{20}H_{20}O_6$  (356.38). Yellow orange solid. Source: PI JIU HUA *Humulus lupulus* (strobile). Ref: 4789.

**5264 Desmodianone D**

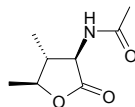
2,3-Dihydro-5,7-dihydroxy-6-methyl-3-(1*a*,2,3,3*a*,8*b*,8*c*-hexahydro-6-hydroxy-1,1,3*a*-trimethyl-1*H*-4-oxabenzof[*f*]cyclobut[*c,d*]inden-7-yl)-4*H*-1-benzopyran-4-one  $C_{26}H_{28}O_6$  (436.51). Source: DAN HUI BAI SHAN MA HUANG *Desmodium canum*. Ref: 3444.

**5265 Desmodianone E**

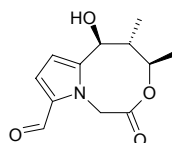
2,3-Dihydro-5,7-dihydroxy-6-methyl-3-(6*a*,7,8,10*a*-tetrahydro-3-hydroxy-6,6,9-trimethyl-6*H*-dibenzo[*b,d*]pyran-2-yl)-4*H*-1-benzopyran-4-one  $C_{26}H_{28}O_6$  (436.51). Source: DAN HUI BAI SHAN MA HUANG *Desmodium canum*. Ref: 3444.

**5266 Desmodilactone**

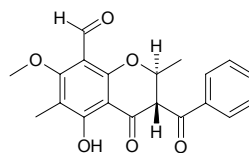
$C_8H_{13}NO_3$  (171.20). Colorless massive crystals, mp 84~85°C,  $[\alpha]_D^{18} = -16.4^\circ$  ( $c = 0.11$ , MeOH). Source: GUANG JIN QIAN CAO *Desmodium styracifolium*. Ref: 260.

**5267 Desmodimine**

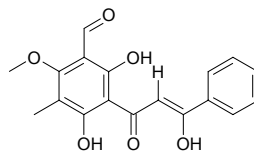
[150036-83-2]  $C_{12}H_{15}NO_4$  (237.26). Colorless gummy substance. Source: GUANG JIN QIAN CAO *Desmodium styracifolium*. Ref: 260.

**5268 Desmosdumotin A**

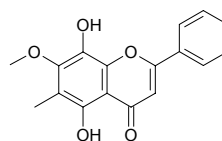
5-Hydroxy-7-methoxy-8-formyl-3-benzoyl-2,6-dimethyl-2*S*,3*R*-dihydrochromone  $C_{20}H_{18}O_6$  (354.36). Yellow massive crystals (CHCl<sub>3</sub>-MeOH), mp 124~125°C. Source: MAO YE JIA YING ZHAO GEN *Desmos dumosus*. Ref: 685.

**5269 Desmosdumotin D**

2-Methoxy-3-methyl-4,6-dihydroxy-5(3'-hydroxyl)cinnamoylbenzaldehyde  $C_{18}H_{16}O_6$  (328.32). Yellow acicular crystals (CHCl<sub>3</sub>-MeOH), mp 147~148°C. Pharm: Anti-HIV (a lead candidate)<sup>[4881]</sup>. Source: MAO YE JIA YING ZHAO GEN *Desmos dumosus*. Ref: 685, 4881.

**5270 Desmosflavone**

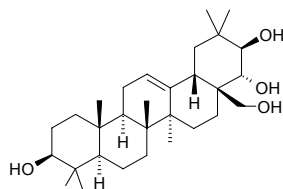
5-Hydroxy-7-methoxy-6,8-dimethylflavone  $C_{17}H_{14}O_5$  (298.30). Orange sandy crystals (chloroform), mp 197~198°C. Source: JIA YING ZHAO *Desmos cochinchinensis* [Syn. *Desmos chinensis*]. Ref: 312.



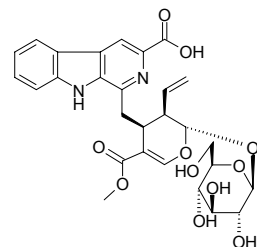


**5271 16-Desoxybarringtonol C**

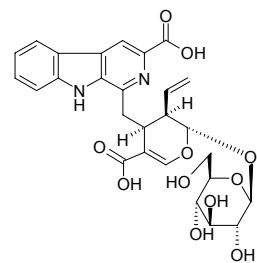
$C_{30}H_{50}O_4$  (474.73). mp 288.0~290.5°C. Source: RI BEN QI YE SHU *Aesculus turbinata*. Ref: 6.

**5272 Desoxycordifoline**

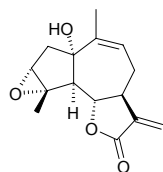
$C_{28}H_{30}N_2O_{11}$  (570.56). mp 144~146°C. Pharm: Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*). Source: DI SHI WU TAN *Nauclea diderrichii*. Ref: 2178.

**5273 Desoxycordifolinic acid**

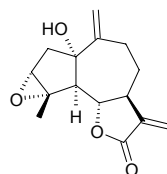
[88839-94-5]  $C_{27}H_{28}N_2O_{11}$  (556.53). mp 206~208°C,  $[\alpha]_D = -45.7^\circ$  ( $c = 0.126$ , MeOH). Pharm: Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*). Source: DI SHI WU TAN *Nauclea diderrichii*. Ref: 2178.

**5274 8-Desoxy-3 $\alpha$ ,4 $\alpha$ -epoxyrupiculin-A**

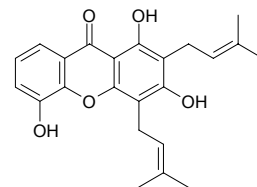
$C_{15}H_{18}O_4$  (262.31). Colorless gum,  $[\alpha]_D^{22} = -22^\circ$  ( $c = 0.1$ , EtOH). Pharm: Cytotoxic (*in vitro*, KB,  $IC_{50} = 1.7\mu\text{g/mL}$ ). Source: *Warionia saharae* (leaf: yield = 0.0004%dw). Ref: 4620.

**5275 8-Desoxy-3 $\alpha$ ,4 $\alpha$ -epoxyrupiculin-B**

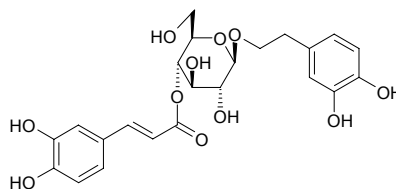
$C_{15}H_{18}O_4$  (262.31). Colorless gum,  $[\alpha]_D^{22} = +46^\circ$  ( $c = 0.1$ , EtOH). Pharm: Cytotoxic (*in vitro*, KB,  $IC_{50} = 2.0\mu\text{g/mL}$ ). Source: *Warionia saharae* (leaf: yield = 0.0008%dw). Ref: 4620.

**5276 8-Desoxygartanin**

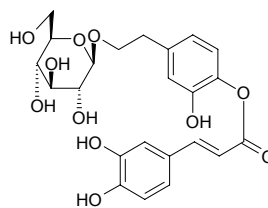
$C_{23}H_{24}O_5$  (380.44). Pharm: Antioxidant (DPPH scavenger,  $10\mu\text{mol/L}$ , ScRt = 8%, control BHT,  $10\mu\text{mol/L}$ , ScRt = 43%)<sup>[5319]</sup>, cytotoxic (KB cancer cell lines, inactive; BC-1, inactive; NCI-H187,  $IC_{50} = 16.88\mu\text{g/mL}$  Ellipticine,  $IC_{50} = 0.39\mu\text{g/mL}$ )<sup>[1619]</sup>; antibacterial (MRSA, MIC =  $16\mu\text{g/mL}$ ; control Vancomycin, MIC =  $2\mu\text{g/mL}$ )<sup>[4735]</sup>. Source: DAO NIAN ZI *Garcinia mangostana* (young fruit: yield = 0.0060%dw)<sup>[1619]</sup>, DAO NIAN ZI *Garcinia mangostana* (fruit hull), HEI XIAN TIAO TENG HUANG *Garcinia nigrolineata* (leaf: yield = 0.00047%dw)<sup>[4735]</sup>, MEI LI TENG HUANG *Garcinia speciosa* (trunk bark and stems), TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). Ref: 1619, 3066, 4735, 5319, 5491.

**5277 Desrhamnosylacteoside**

$C_{23}H_{26}O_{11}$  (478.46). Source: CHANG YE CHE QIAN *Plantago lanceolata*. Ref: 5020.

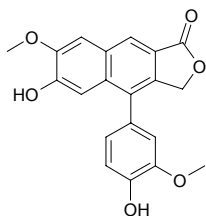
**5278 Desrhamnosylisoacteoside**

$C_{23}H_{26}O_{11}$  (478.46). Source: CHANG YE CHE QIAN *Plantago lanceolata*. Ref: 5020.

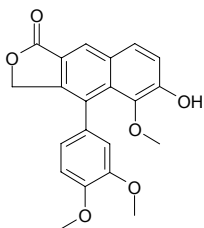


**5279 Detetrahydroconidendrin**

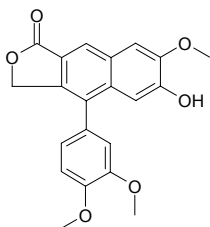
$C_{20}H_{16}O_6$  (352.35). **Pharm:** Antibacterial (18 methicillin-resistant *Staphylococcus aureus* MRSA, MIC = 4, 8, 16, or >64 $\mu\text{g/mL}$ )<sup>[3052]</sup>, antioxidant (ferric thiocyanate method, 0.5mmol/L, stronger than control Vitamin E; DPPH radical scavenger, DPPH 0.1mmol/L, 0.02mmol/L, stronger than control *L*-Cysteine)<sup>[4791]</sup>. **Source:** DAN YE MAN JING *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*] (underground part: yield = 0.00017%dw)<sup>[3052]</sup>, HUANG JING ZHONG ZI *Vitex negundo* (seed: yield = 0.0051%)<sup>[4791]</sup>. **Ref:** 3052, 4791.

**5280 Detetrahydroconidendrin B**

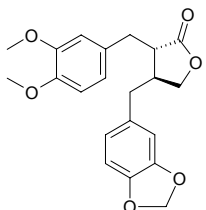
$C_{21}H_{18}O_6$  (366.37). Brown amorphous solid. **Source:** DAN YE MAN JING *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*] (underground part: yield = 0.000057%dw). **Ref:** 3052.

**5281 Detetrahydroconidendrin C**

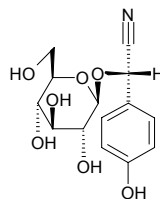
$C_{21}H_{18}O_6$  (366.37). Yellowish oil. **Source:** DAN YE MAN JING *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*] (underground part: yield = 0.000042%dw). **Ref:** 3052.

**5282 Dextrobursehernin**

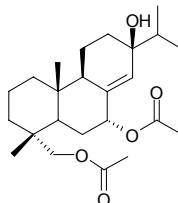
$C_{21}H_{22}O_6$  (370.41). Colorless liquid,  $[\alpha]_D^{25} = +36.0^\circ$  ( $c = 1.0$ ). **Source:** YE XIA ZHU *Phyllanthus urinaria*. **Ref:** 3410.

**5283 Dhuririn**

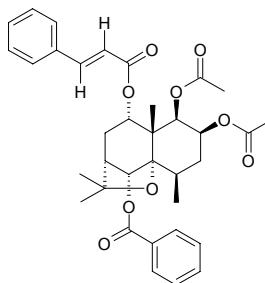
*p*-Hydroxymandelonitril-glucoside [21401-21-8]  $C_{14}H_{17}NO_7$  (311.29). **Pharm:** Toxin. **Source:** AO ZHOU JIAN GUO *Macadamia ternifolia*, GAO LIANG *Sorghum vulgare*, KUN LAN SHU *Trochodendron aralioides*, LIU LI JU *Borago officinalis*, YE YING SU *Papaver nudicaule*, *Platanus* sp. **Ref:** 6, 658, 1521.

**5284 7 $\alpha$ ,18-Diacetoxyabiet-8(14)-en-13 $\beta$ -ol**

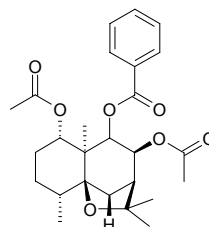
$C_{24}H_{38}O_5$  (406.57). Colorless oil,  $[\alpha]_D = +14.7^\circ$  ( $c = 1.0$ ,  $\text{CHCl}_3$ ). **Pharm:** Cytotoxic (A549,  $\text{IC}_{50} > 5\mu\text{g/mL}$ ; H116,  $\text{IC}_{50} > 5\mu\text{g/mL}$ ; PSN1,  $\text{IC}_{50} > 5\mu\text{g/mL}$ ; T98G,  $\text{IC}_{50} > 5\mu\text{g/mL}$ ; SKBR3,  $\text{IC}_{50} > 5\mu\text{g/mL}$ ). **Source:** BEI FEI XUE SONG *Cedrus atlantica* (cone). **Ref:** 5248.

**5285 1 $\beta$ ,2 $\beta$ -Diacetoxy-6 $\alpha$ -benzoyloxy-9 $\alpha$ -cinnamoyloxy- $\beta$ -dihydro-agarofuran**

$C_{35}H_{40}O_9$  (604.70). **Pharm:** NO production inhibitor (mus, macrophage RAW264.7 cells, activated by LPS,  $\text{IC}_{50} = 43.7\mu\text{mol/L}$ , control Aminoquanidine  $\text{IC}_{50} = 18.2\mu\text{mol/L}$ ). **Source:** NAN SHE TENG GUO *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. **Ref:** 2584.

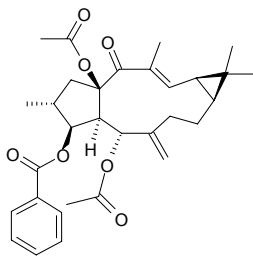
**5286 1 $\alpha$ ,8 $\beta$ -Diacetoxy-9 $\beta$ -benzoyloxydihydro- $\beta$ -agarofuran**

$C_{26}H_{34}O_7$  (458.56). White amorphous powder,  $[\alpha]_D^{25} = -8.68^\circ$  ( $c = 0.12$ , MeOH). **Pharm:** Intestinal smooth muscle relaxant (*in vitro*, rat ileum, 1 $\mu\text{g/mL}$ , relaxant effect = (7.3 $\pm$ 1.7)%, control Papaverine, relaxant effect = (28.6 $\pm$ 7.3)%). **Source:** DENG YOU TENG ZI *Celastrus paniculatus*. **Ref:** 5002.



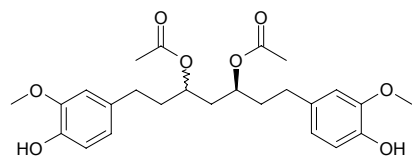
**5287 (2*R*\*,3*S*\*,4*R*\*,5*R*\*,9*S*\*,11*S*\*,15*R*\*)-5,15-Diacetoxy-3-benzoyloxy-14-oxolathyrin-6(17),12*E*-diene**

Euphorbia factor L<sub>3</sub> C<sub>31</sub>H<sub>38</sub>O<sub>7</sub> (522.64). Colorless oil. Source: HAI BO NA DA JI *Euphorbia hyberna*. Ref: 1521, 2153.



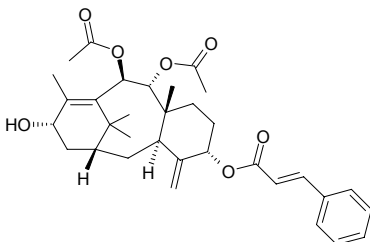
**5288 (3*S*,5*S*)-3,5-Diacetoxy-1,7-bis(4-hydroxy-3-methoxyphenyl)heptane**

C<sub>25</sub>H<sub>32</sub>O<sub>8</sub> (460.53). Colorless oil,  $[\alpha]_D^{26} = +7.0^\circ$  ( $c = 0.68$ , CHCl<sub>3</sub>). Source: SHENG JIANG *Zingiber officinale*. Ref: 3803.



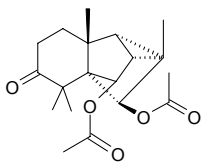
**5289 9*α*,10*β*-Diacetoxy-5*α*-cinnamoyltaxa-4(20),11-dien-13*α*-ol**

C<sub>33</sub>H<sub>42</sub>O<sub>7</sub> (550.70). Colorless gum,  $[\alpha]_D^{24} = -13^\circ$  ( $c = 0.03$ , CHCl<sub>3</sub>). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis* (seed). Ref: 3991.



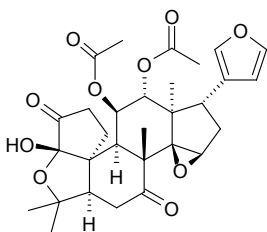
**5290 1*R*,5*R*-Diacetoxycyclomyltaylan-10-one**

C<sub>19</sub>H<sub>26</sub>O<sub>5</sub> (334.42). Amorphous powder,  $[\alpha]_D^{20} = -23.2^\circ$  ( $c = 0.9$ , MeOH). Source: *Bazzania madagassa*. Ref: 4458.



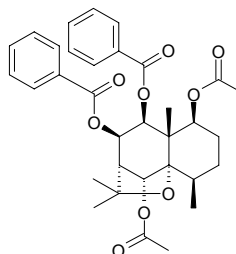
**5291 11*β*,12*α*-Diacetoxy-1-deoxy-14*β*,15*β*-epoxy-3*β*-hydroxy-2-oxoneotecleanin**

C<sub>30</sub>H<sub>36</sub>O<sub>10</sub> (556.62). Colorless needle-like crystals (MeCN-H<sub>2</sub>O), mp 179~180°C. Source: *Turraea wakefieldii* (root cortex). Ref: 3459.



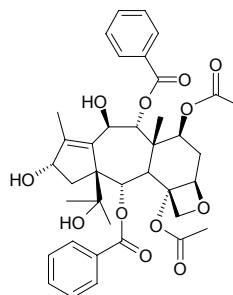
**5292 1*β*,6*α*-Diacetoxy-8*β*,9*β*-dibenzoyloxy-*β*-dihydroagarofuran**

C<sub>33</sub>H<sub>38</sub>O<sub>9</sub> (578.67). Pharm: NO production inhibitor (mus, macrophage RAW264.7 cells activated by LPS, very weak activity). Source: NAN SHE TENG GUO *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. Ref: 2584.



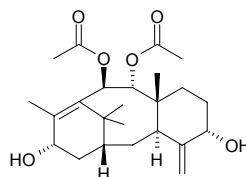
**5293 4*α*,7*β*-Diacetoxy-2*α*,9*α*-dibenzoyloxy-5*β*,20-epoxy-10*β*,13*α*,15-trihydroxy-11(15→1)-abeo-taxene**

C<sub>38</sub>H<sub>44</sub>O<sub>12</sub> (692.77).  $[\alpha]_D = -8^\circ$  (CHCl<sub>3</sub>). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.



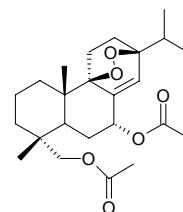
**5294 9*α*,10*β*-Diacetoxy-5*α*,13*α*-dihydroxy-4(20),11-taxadiene**

Diacetoxydihydroxytaxadiene C<sub>24</sub>H<sub>36</sub>O<sub>6</sub> (420.55). mp 235°C,  $[\alpha]_D = +146^\circ$  (from *Taxus baccata*), mp 234~236°C,  $[\alpha]_D = +144.2^\circ$  (CHCl<sub>3</sub>) (from *Taxus mairei*). Source: HONG DOU SHAN *Taxus chinensis*, JIANG GUO ZI SHAN *Taxus baccata*, MEI LI HONG DOU SHAN *Taxus mairei*. Ref: 662.



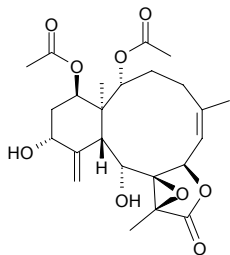
**5295 7*α*,18-Diacetoxy,9*β*,13*β*-epi-dioxiabiet-8(14)-ene**

C<sub>24</sub>H<sub>36</sub>O<sub>6</sub> (420.55). Colorless oil,  $[\alpha]_D = +6.2^\circ$  ( $c = 0.13$ , CHCl<sub>3</sub>). Pharm: Cytotoxic (A549, IC<sub>50</sub> > 5μg/mL; H116, IC<sub>50</sub> > 5μg/mL; PSN1, IC<sub>50</sub> > 5μg/mL; T98G, IC<sub>50</sub> > 5μg/mL; SKBR3, IC<sub>50</sub> > 5μg/mL). Source: BEI FEI XUE SONG *Cedrus atlantica* (cone). Ref: 5248.



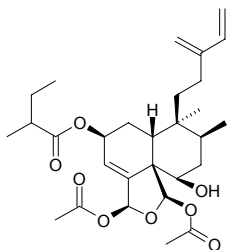
**5296 (1R,2R,5Z,7R,8S,9R,10R,12R,14R,17S)-2,14-Diacetoxy-8,17-epoxy-9,12-dihydroxybriara-5,11(20)-dien-19-one**

$C_{24}H_{32}O_9$  (464.52). Colorless oil,  $[\alpha]_D^{25} = +113^\circ$  ( $c = 0.1$ ,  $CHCl_3$ );  $[\alpha]_D^{25} = +115.1^\circ$  ( $c = 0.08$ ). Source: CUI DENG XIN LIU SHAN HU *Junceella fragilis*, LEI DENG XIN LIU SHAN HU *Junceella gemmacea*. Ref: 2554.



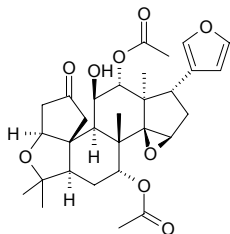
**5297 *rel*-(2S,5R,6R,8S,9S,10R,18S,19R)-diacetoxy-18,19-epoxy-6-hydroxy-2-(2-methylbutanoyloxy)cleroda-3,13(16),14-triene**

$C_{29}H_{42}O_8$  (518.65). Pharm: Cytotoxic (*in vitro*, PC3,  $IC_{50} = 1.8\mu\text{mol/L}$ , control Paclitaxel,  $IC_{50} = 0.016\mu\text{mol/L}$ ; Hep3B,  $IC_{50} = 2.4\mu\text{mol/L}$ , Paclitaxel,  $IC_{50} = 0.031\mu\text{mol/L}$ ). Source: MO ZHI JIAO GU CUI *Casearia membranacea* (leaf and twig: yield = 0.023%dw). Ref: 3010.



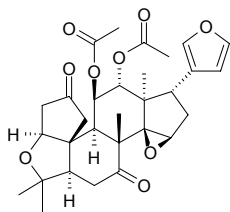
**5298 7 $\alpha$ ,12 $\alpha$ -Diacetoxy-14 $\beta$ ,15 $\beta$ -epoxy-11 $\beta$ -hydroxynoteecleanin**

$C_{30}H_{38}O_9$  (542.63). White amorphous solid, mp 180–182°C. Source: *Turraea wakefieldii* (root cortex). Ref: 3459.



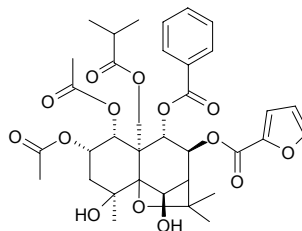
**5299 11 $\beta$ ,12 $\alpha$ -Diacetoxy-14 $\beta$ ,15 $\beta$ -epoxynoteecleanin**

$C_{30}H_{36}O_9$  (540.62). White amorphous solid, mp 161–162°C. Pharm: Larvicidal (mosquito late third or early fourth-instar larvae of *Anopheles gambiae* s.s.,  $LD_{50} = 7.07\text{mg/L}$ ). Source: *Turraea wakefieldii* (root cortex). Ref: 3459.



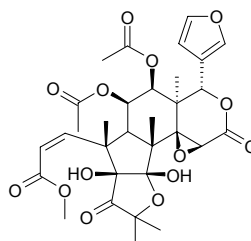
**5300 1 $\alpha$ ,2 $\alpha$ -Diacetoxy-8 $\beta$ -( $\beta$ -furancarboxyloxy)-9 $\alpha$ -benzoyloxy-13-isobutanoyloxy-4 $\beta$ ,6 $\beta$ -dihydroxy- $\beta$ -dihydroagarofuran**

$C_{35}H_{42}O_{14}$  (686.72). Amorphous white powder, mp 248–249°C,  $[\alpha]_D^{24} = +7.6^\circ$  ( $c = 0.66$ ,  $CHCl_3$ ). Pharm: Insecticidal (*Mythimna separata*,  $KD_{50} = 73.3\mu\text{g/g}$ ). Source: DIAO GAN MA *Celastrus angulatus* (root cortex). Ref: 5228.



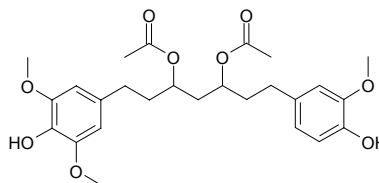
**5301 11,12-Diacetoxyharrisonin**

$C_{31}H_{36}O_{14}$  (362.62). Colorless crystals (acetone), mp.249–250°C. Source: A BI XI NI YA NIU JIN GUO *Harrisonia abyssinica*. Ref: 2351.



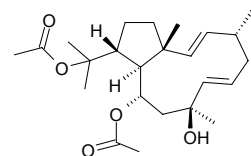
**5302 3,5-Diacetoxy-1-(4-hydroxy-3,5-dimethoxyphenyl)-7-(4-hydroxy-3-methoxyphenyl) heptane**

$C_{26}H_{34}O_9$  (490.56). Source: GAN JIANG *Zingiber officinale*, SHENG JIANG *Zingiber officinale*. Ref: 2.



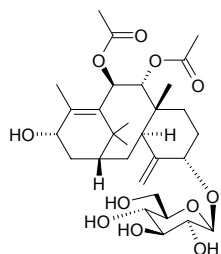
**5303 10,18-Diacetoxy-8-hydroxy-2,6-dolabelladiene**

$C_{24}H_{38}O_5$  (406.57). Colorless needles, mp 136–138°C,  $[\alpha]_D^{25} = -115^\circ$  ( $c = 0.0016$ ,  $CHCl_3$ ). Pharm: Anti-HSV-1 (Vero cells infected by HSV-1,  $50\mu\text{mol/L}$ , (89±5)% of cytopathic effect inhibition of herpes virus); cytotoxic inactive ( $200\mu\text{mol/L}$ ); HIV-1 RT inhibitor ( $40\mu\text{mol/L}$ , InRt = 20%, positive control AZT,  $0.01\mu\text{mol/L}$ , InRt = 85%). Source: BA XI ZONG ZAO *Dictyota paffii*. Ref: 5023.



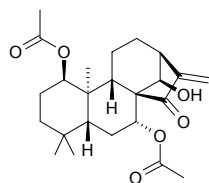
**5304 9 $\alpha$ ,10 $\beta$ -Diacetoxy-13 $\alpha$ -hydroxy-5 $\alpha$ -O-( $\beta$ -D-glucopyranosyl)taxa-4(20),11-diene**

C<sub>30</sub>H<sub>46</sub>O<sub>11</sub> (582.69). Amorphous solid,  $[\alpha]_D^{22} = +33^\circ$  ( $c = 0.3$ , CHCl<sub>3</sub>). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle; yield = 0.000075%dw). Ref: 4734.



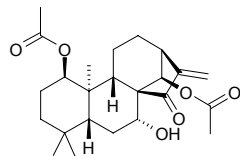
**5305 ent-1 $\alpha$ ,7 $\beta$ -Diacetoxy-14 $\alpha$ -hydroxykaur-16-en-15-one**

C<sub>24</sub>H<sub>34</sub>O<sub>6</sub> (418.53). White amorphous powder,  $[\alpha]_D^{15} = -22^\circ$  ( $c = 0.10$ , MeOH). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4057.



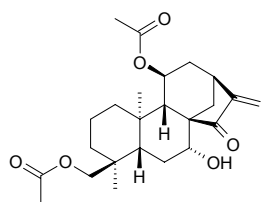
**5306 ent-1 $\alpha$ ,14 $\alpha$ -Diacetoxy-7 $\beta$ -hydroxykaur-16-en-15-one**

C<sub>24</sub>H<sub>34</sub>O<sub>6</sub> (418.53). White amorphous powder,  $[\alpha]_D^{15} = -16^\circ$  ( $c = 0.10$ , MeOH). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4057.



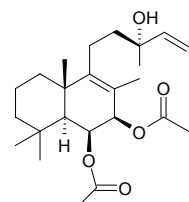
**5307 ent-11 $\alpha$ ,18-Diacetoxy-7 $\beta$ -hydroxykaur-16-en-15-one**

C<sub>24</sub>H<sub>34</sub>O<sub>6</sub> (418.54). White amorphous powder,  $[\alpha]_D^{25} = -135.7^\circ$  ( $c = 2.24$ , CHCl<sub>3</sub>). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4444.



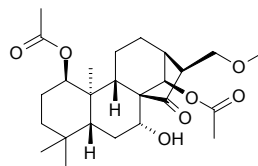
**5308 6 $\beta$ ,7 $\beta$ -Diacetoxy-13-hydroxy-labda-8,14-diene**

C<sub>24</sub>H<sub>38</sub>O<sub>5</sub> (406.57). Pharm: Affinity to dopamine-D<sub>2</sub>-receptor<sup>[2413]</sup>. Source: SUI HUA MU JING *Vitex agnuscastus*. Ref: 2413.



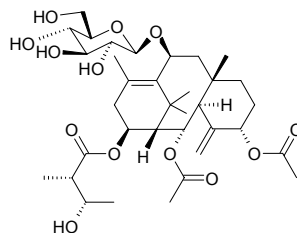
**5309 ent-(16S)-1 $\alpha$ ,14 $\alpha$ -Diacetoxy-7 $\beta$ -hydroxy-17-methoxykauran-15-one**

C<sub>25</sub>H<sub>38</sub>O<sub>7</sub> (450.58). White amorphous powder,  $[\alpha]_D^{25} = -225.0^\circ$  ( $c = 0.16$ , CHCl<sub>3</sub>). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4444.



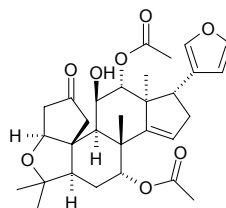
**5310 2 $\alpha$ ,5 $\alpha$ -Diacetoxy-14 $\beta$ -(2'S,3'R)-3'-hydroxy-2' $\alpha$ -methylbutanoate-10 $\beta$ -O-( $\beta$ -D-glucopyranosyl)taxa-4(20),11-diene**

C<sub>35</sub>H<sub>54</sub>O<sub>13</sub> (682.81). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle; yield = 0.00013%dw). Ref: 4734.



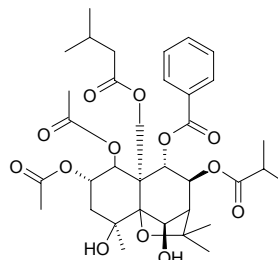
**5311 7 $\alpha$ ,12 $\alpha$ -Diacetoxy-11 $\beta$ -hydroxynotecleanin**

C<sub>30</sub>H<sub>38</sub>O<sub>8</sub> (526.63). White amorphous solid, mp 186~187°C. Pharm: Larvicidal (mosquito late third or early fourth-instar larvae of *Anopheles gambiae* s.s., LD<sub>50</sub> = 7.05mg/L). Source: *Turraea wakefieldii* (root cortex). Ref: 3459.



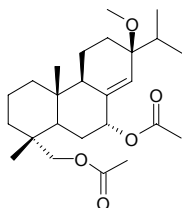
**5312 1 $\alpha$ ,2 $\alpha$ -Diacetoxy-8 $\beta$ -isobutanoyloxy-9 $\alpha$ -benzoyloxy-13-( $\alpha$ -methyl)butanoyloxy-4 $\beta$ ,6 $\beta$ -dihydroxy- $\beta$ -dihydroagarofuran**

C<sub>35</sub>H<sub>48</sub>O<sub>13</sub> (676.77). Amorphous white powder, mp 95~96°C,  $[\alpha]_D^{24} = -12.8^\circ$  ( $c = 0.60$ , CHCl<sub>3</sub>). Pharm: Insecticidal (*Mythimna separata*, KD<sub>50</sub> = 135.3 $\mu$ g/g). Source: DIAO GAN MA *Celastrus angulatus* (root cortex). Ref: 5228.

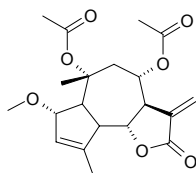


**5313 7 $\alpha$ ,18-Diacetoxy-13 $\beta$ -methoxyabiet-8(14)-ene**

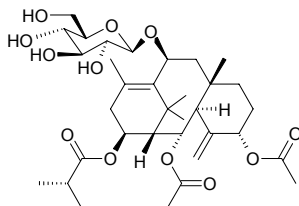
C<sub>25</sub>H<sub>40</sub>O<sub>5</sub> (420.59). Colorless oil,  $[\alpha]_D^{25} = +43.7^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>). Source: BEI FEI XUE SONG *Cedrus atlantica* (cone). Ref: 5248.

**5314 8,10-Diacetoxy-2-methoxy-3,11(13)-guaidiene-12,6-olide**

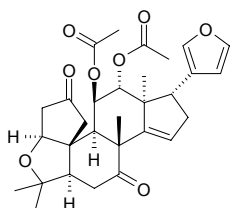
C<sub>20</sub>H<sub>26</sub>O<sub>7</sub> (378.43).  $[\alpha]_D^{25} = -32.4^\circ$  ( $c = 0.75$ , CHCl<sub>3</sub>). Pharm: Cytotoxic (*in vitro*, ACHN cell, IC<sub>50</sub> = (3.26±0.28)μg/mL, control Adriamycin, IC<sub>50</sub> = (0.09±0.03)μg/mL; LOX-IMVI, IC<sub>50</sub> = (3.78±0.31)μg/mL, Adriamycin, IC<sub>50</sub> = (0.05±0.02)μg/mL; SW620, IC<sub>50</sub> = (4.75±0.18)μg/mL, Adriamycin, IC<sub>50</sub> = (0.19±0.07)μg/mL; PC3, IC<sub>50</sub> = (3.82±0.26)μg/mL, Adriamycin, IC<sub>50</sub> = (0.76±0.12)μg/mL; A549, IC<sub>50</sub> = (3.67±0.29)μg/mL, Adriamycin, IC<sub>50</sub> = (0.28±0.09)μg/mL)<sup>[5455]</sup>; anti-apoptosis (etoposide-induced, IC<sub>50</sub> = (13.7±0.9)μg/mL; control PDTIC, IC<sub>50</sub> = (8.0±0.5)μg/mL). Source: BEI YE JU *Chrysanthemum boreale*. Ref: 5455.

**5315 2 $\alpha$ ,5 $\alpha$ -Diacetoxy-14 $\beta$ -2'- $\alpha$ -methylbutanoate-10 $\beta$ -O-( $\beta$ -D-glucopyranosyl)taxa-4(20),11-diene**

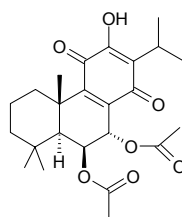
C<sub>35</sub>H<sub>54</sub>O<sub>12</sub> (666.81). Amorphous solid,  $[\alpha]_D^{22} = +32^\circ$  ( $c = 0.15$ , CHCl<sub>3</sub>). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle: yield = 0.00014%dw). Ref: 4734.

**5316 11 $\beta$ ,12 $\alpha$ -Diacetoxyneoteceanin**

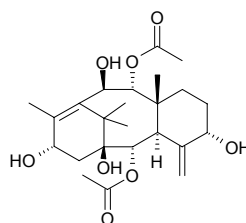
C<sub>30</sub>H<sub>36</sub>O<sub>8</sub> (524.62). White amorphous solid, mp 154–156°C,  $[\alpha]_D^{20} = -34.0^\circ$  ( $c = 1.59$ , CHCl<sub>3</sub>). Pharm: Larvicidal (mosquito late third or early fourth-instar larvae of *Anopheles gambiae* s.s., LD<sub>50</sub> = 7.83mg/L). Source: TURRAEA WAKEFIELDII (root cortex). Ref: 3459.

**5317 6 $\beta$ ,7 $\alpha$ -Diacetoxyroyleanone**

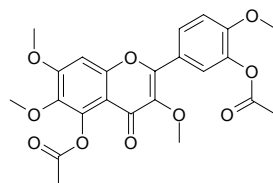
C<sub>24</sub>H<sub>32</sub>O<sub>7</sub> (432.52). Yellowish solid,  $[\alpha]_D^{23} = -56.7^\circ$  ( $c = 0.3$ , CHCl<sub>3</sub>). Source: TAI WAN SHAN *Taiwania cryptomerioides* (bark). Ref: 4443.

**5318 Diacetyxytetrahydroxytaxadiene**

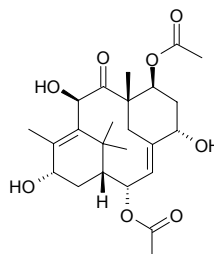
2 $\alpha$ ,9 $\alpha$ -Diacetoxy-1 $\beta$ ,5 $\alpha$ ,10 $\beta$ ,13 $\alpha$ -tetrahydroxytaxa-4(20),11-diene C<sub>24</sub>H<sub>36</sub>O<sub>8</sub> (452.55). mp 154°C,  $[\alpha]_D = -22^\circ$  (CHCl<sub>3</sub>) Source: JIANG GUO ZI SHAN *Taxus baccata*, HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**5319 5,3'-Diacetoxy-3,6,7,4'-tetramethoxyflavone**

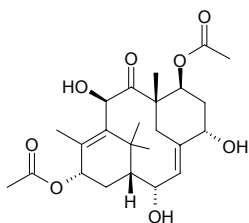
C<sub>23</sub>H<sub>22</sub>O<sub>10</sub> (458.43). mp 140–142°C. Pharm: Cytotoxic (*in vitro*, Col2, ED<sub>50</sub> = 15.9μg/mL; hTERT-RPE1, ED<sub>50</sub> = 0.4μg/mL; HUVEC, ED<sub>50</sub> = 0.1μg/mL; KB, ED<sub>50</sub> = 0.2μg/mL; HUVEC, ED<sub>50</sub> = 0.1μg/mL; Lu1, ED<sub>50</sub> = 0.7μg/mL). Source: HUANG JING YE *Vitex negundo*. Ref: 4699.

**5320 2 $\alpha$ ,7 $\beta$ -Diacetoxy-5 $\alpha$ ,10 $\beta$ ,13 $\alpha$ -trihydroxy-2(3→20)abeotaxane-9-one**

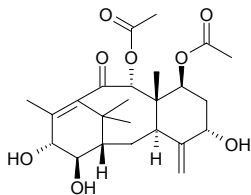
[260367-32-6] C<sub>24</sub>H<sub>34</sub>O<sub>8</sub> (450.53). Source: MEI LI HONG DOU SHAN *Taxus mairei*. Ref: 2414.



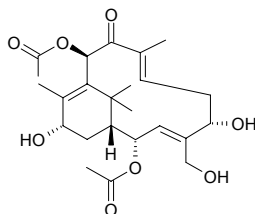
**5321 7 $\beta$ ,13 $\alpha$ -Diacetoxy-2 $\alpha$ ,5 $\alpha$ ,10 $\beta$ -trihydroxy-2(3 $\rightarrow$ 20)abeotaxane-9-one**  
2,10-Dideacetylaxin B' [219999-48-1] C<sub>24</sub>H<sub>34</sub>O<sub>8</sub> (450.53). Colorless crystals, mp 220–222°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –11.2° (c = 0.002, CHCl<sub>3</sub>). Source: MEI LI HONG DOU SHAN *Taxus mairei*. Ref: 2414.



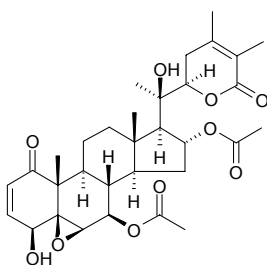
**5322 7 $\beta$ ,9 $\alpha$ -Diacetoxy-5 $\alpha$ ,13 $\alpha$ ,14 $\beta$ -trihydroxy-10-oxotaxa-4(20),11-diene**  
C<sub>24</sub>H<sub>34</sub>O<sub>8</sub> (450.53). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.



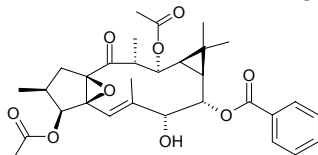
**5323 (3E,7E)-2 $\alpha$ ,10 $\beta$ -Diacetoxy-5 $\alpha$ ,13 $\alpha$ ,20-trihydroxy-3,8-secotaxa-3,7,11-trien-9-one**  
C<sub>24</sub>H<sub>34</sub>O<sub>8</sub> (450.53). [ $\alpha$ ]<sub>D</sub> = –15.5° (CHCl<sub>3</sub>). Source: HONG DOU SHAN *Taxus chinensis*. Ref: 662.



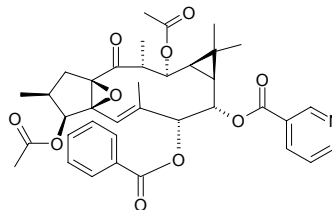
**5324 7 $\beta$ ,16 $\alpha$ -Diacetoxy withanolide D**  
7 $\beta$ ,16 $\alpha$ -Diacetoxy-4 $\beta$ ,20R-dihydroxy-5 $\beta$ ,6 $\beta$ -epoxy-1-oxowitha-2,24-dienolide C<sub>33</sub>H<sub>42</sub>O<sub>10</sub> (586.69). mp 163–166° (EtOAc) Source: BA XI YE YAN *Acnistus arborescens*. Ref: 2003.



**5325 3,12-Diacetyl-8-benzoylingol**  
C<sub>31</sub>H<sub>38</sub>O<sub>9</sub> (554.64). White powder, mp 95–97°, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –27° (c = 0.5, CHCl<sub>3</sub>). Source: YIN DU DUO ZHI DA JI *Euphorbia nivulia*. Ref: 1985.

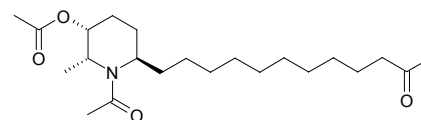


**5326 3,12-Diacetyl-7-benzoyl-8-nicotinoylingol**  
C<sub>37</sub>H<sub>41</sub>NO<sub>10</sub> (659.74). White powder, mp 90–92°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –61° (c = 0.5, CHCl<sub>3</sub>). Source: YIN DU DUO ZHI DA JI *Euphorbia nivulia*. Ref: 1985.

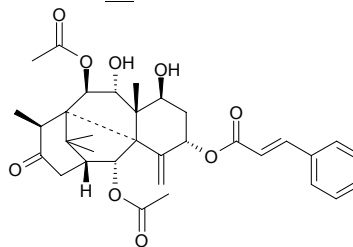


**5327 N,O-Diacetylcastine**

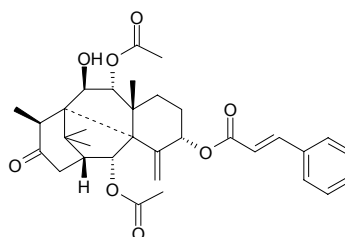
C<sub>22</sub>H<sub>39</sub>NO<sub>4</sub> (381.56). Pharm: Cytotoxic (P<sub>388</sub> IC<sub>50</sub> = 5.2 μg/mL, control 5-FU, IC<sub>50</sub> = 0.99 μg/mL; KB, IC<sub>50</sub> = 5.2 μg/mL, Doxorubicin, IC<sub>50</sub> = 0.57 μg/mL; BC-1, IC<sub>50</sub> = 7.1 μg/mL, Doxorubicin, IC<sub>50</sub> = 0.21 μg/mL); cytotoxic (brine shrimp lethality, IC<sub>50</sub> = 17.0 μg/mL, control Monocrotophos, IC<sub>50</sub> = 0.24 μg/mL). Source: ZHUANG GUAN FAN XIE *Senna spectabilis* (flower). Ref: 5480.



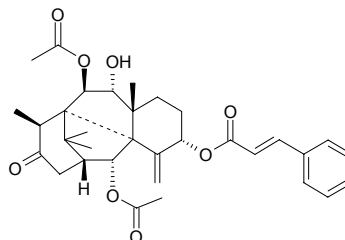
**5328 2,10-Diacetyl-5-cinnamoyl-7 $\beta$ -hydroxy phototaxicin II**  
C<sub>33</sub>H<sub>40</sub>O<sub>8</sub> (580.68). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis*. Ref: 662.



**5329 2,9-Diacetyl-5-cinnamoylphototaxicin II**  
C<sub>33</sub>H<sub>40</sub>O<sub>8</sub> (564.68). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis*. Ref: 662.

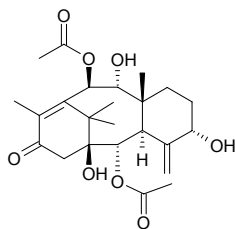


**5330 2,10-Diacetyl-5-cinnamoylphototaxicin II**  
C<sub>33</sub>H<sub>40</sub>O<sub>8</sub> (564.68). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis*. Ref: 662.

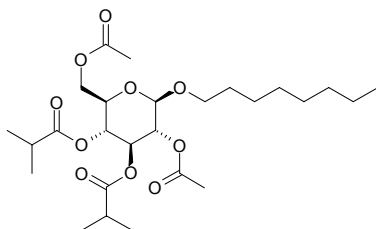


**5331 Diacetyldecinnamoyltaxicin I**

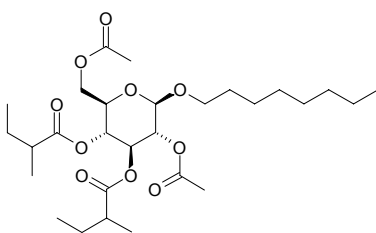
2,10-Di-*O*-acetyl-5-decinnamoyl-taxicin I C<sub>24</sub>H<sub>34</sub>O<sub>8</sub> (450.53). mp 165°C, [α]<sub>D</sub> = +30° (CHCl<sub>3</sub>). Source: JIANG GUO ZI SHAN *Taxus baccata*, HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**5332 2,6-Diacetyl-3,4-diisobutyryl-1-*O*-octylglucopyranoside**

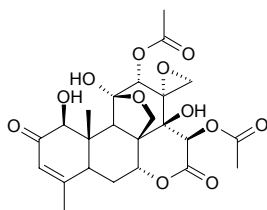
C<sub>26</sub>H<sub>44</sub>O<sub>10</sub> (516.63). Pharm: Antibacterial (gram-positive methicillin-resistant *Staphylococcus aureus* ATCC33591, MIC = 128µg/mL, control Gentamicin, MIC = 2µg/mL). Source: AI SHENG XIONG GUO *Arctostaphylos pumila* (stem). Ref: 5060.

**5333 2,6-Diacetyl-3,4-dimethylbutyryl-1-*O*-octylglucopyranoside**

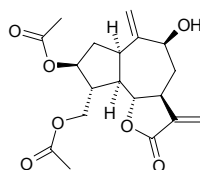
C<sub>28</sub>H<sub>48</sub>O<sub>10</sub> (544.69). Pharm: Antibacterial (gram-positive methicillin-resistant *Staphylococcus aureus* ATCC33591, MIC = 64µg/mL; control Gentamicin, MIC = 2µg/mL). Source: AI SHENG XIONG GUO *Arctostaphylos pumila* (stem). Ref: 5060.

**5334 12,15-Diacetyl-13α(21)-epoxyeurycomanone**

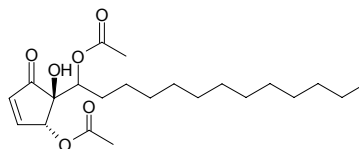
C<sub>24</sub>H<sub>28</sub>O<sub>12</sub> (508.48). Source: *Eurycoma* sp. Ref: 4556.

**5335 3,15-Di-*O*-acetyl-9β-hydroxyamphoricarpolide**

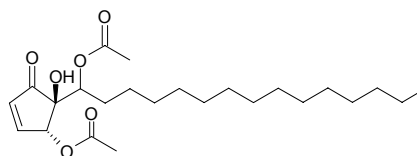
C<sub>19</sub>H<sub>24</sub>O<sub>7</sub> (364.40). Colorless gum, [α]<sub>D</sub><sup>25</sup> = +3.4° (c = 0.25, CHCl<sub>3</sub>). Source: *Amphoricarpus neumayeri* ssp. *neumayeri* (aerial parts), *Amphoricarpus neumayeri* ssp. *murbeckii* (aerial parts). Ref: 3842.

**5336 4,6-Di-*O*-acetyl hygrophorone A<sup>12</sup>**

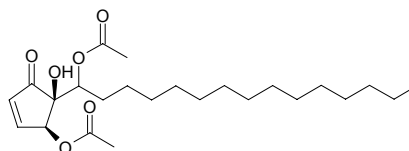
4,5-*trans*-4-Acetoxy-5-hydroxy-5-(1-hydroxytridecyl)-2-cyclopenten-1-one C<sub>22</sub>H<sub>36</sub>O<sub>6</sub> (396.53). Colorless oil, [α]<sub>D</sub><sup>23</sup> = +53.0° (c = 0.940, MeOH). Pharm: Antifungal (*Cladosporium cucumerinum*, 20µg, IZA = 23mm<sup>2</sup>, 40µg, IZA = 40mm<sup>2</sup>). Source: *Hygrophorus persoonii*. Ref: 3800.

**5337 4,5-Di-*O*-acetyl hygrophorone A<sup>14</sup>**

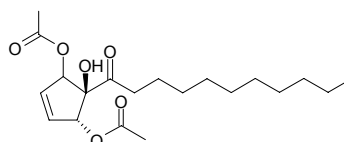
4,5-*trans*-4-Acetoxy-5-hydroxy-5-(1-acetoxypentadecyl)-2-cyclopenten-1-one C<sub>24</sub>H<sub>40</sub>O<sub>6</sub> (424.58). Colorless oil. Pharm: Antifungal (*Cladosporium cucumerinum*, 20µg, IZA = 2mm<sup>2</sup>, 40µg, IZA = 6mm<sup>2</sup>). Source: *Hygrophorus persoonii*. Ref: 3800.

**5338 4,6-Di-*O*-acetyl hygrophorone B<sup>14</sup>**

4,5-*cis*-4-Acetoxy-5-hydroxy-5-(1-acetoxypentadecyl)-2-cyclopenten-1-one C<sub>24</sub>H<sub>40</sub>O<sub>6</sub> (424.58). Colorless oil. Source: *Hygrophorus olivaceoalbus*. Ref: 3800.

**5339 1,4-Di-*O*-acetyl hygrophorone E<sup>10</sup>**

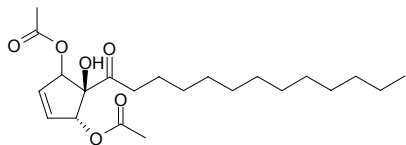
1-(2,5-Diacetoxy-1-hydroxy-cyclopent-3-enyl)-undecan-1-one C<sub>20</sub>H<sub>32</sub>O<sub>6</sub> (368.47). Colorless oil. Source: *Hygrophorus latitabundus*. Ref: 3800.



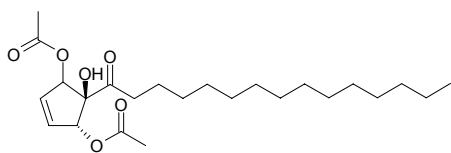


**5340 1,4-Di-*O*-acetyl hygrophorone E<sup>12</sup>**

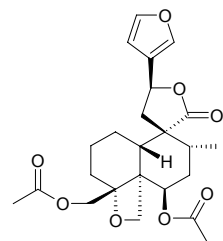
1-(2,5-Diacetoxy-1-hydroxy-cyclopent-3-enyl)-tridecan-1-one C<sub>22</sub>H<sub>36</sub>O<sub>6</sub>  
(396.53). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +80.3° (*c* = 0.395, MeOH). Source:  
*Hygrophorus latitabundus*. Ref: 3800.

**5341 1,4-Di-*O*-acetyl hygrophorone E<sup>14</sup>**

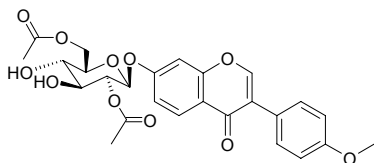
1-(2,5-Diacetoxy-1-hydroxy-cyclopent-3-enyl)-pentadecan-1-one C<sub>24</sub>H<sub>40</sub>O<sub>6</sub>  
(424.58). Colorless oil. Source: *Hygrophorus latitabundus*. Ref: 3800.

**5342 Diacetyl montanin D**

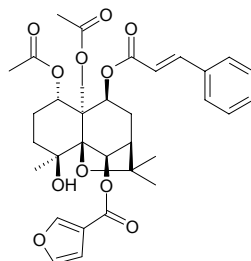
C<sub>24</sub>H<sub>30</sub>O<sub>8</sub> (446.50). Pharm: Insect antifeedant (*Spodoptera litura*, 10μg/cm<sup>2</sup>, antifeedant activity = (67±2)%, control Azadirachtin A, 0.5μg/cm<sup>2</sup>, antifeedant activity = (79±2)%; *Plutella xylostella*, 10μg/cm<sup>2</sup>, antifeedant activity = (62±2)%, control Azadirachtin A, 0.5μg/cm<sup>2</sup>, antifeedant activity = (71±2)%). Source: RONG MAO XIANG KE KE *Teucrium tomentosum* (aerial parts). Ref: 3478.

**5343 2'',6''-*O*-Diacetyloninin**

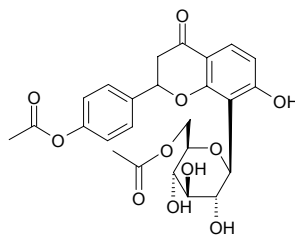
Formononetin-7-*O*-(2'',6''-*O*-diacetyl)glucopyranoside C<sub>26</sub>H<sub>26</sub>O<sub>11</sub> (514.49).  
Yellow amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +9.3° (*c* = 0.55, MeOH). Pharm:  
Cytotoxic (*in vitro*, Hs740T, ED<sub>50</sub> = 7.61μg/mL; Hs756T, ED<sub>50</sub> =  
8.89μg/mL; Hs578T, ED<sub>50</sub> = 5.44μg/mL; Hs742T, ED<sub>50</sub> = 25.53μg/mL;  
DU145, ED<sub>50</sub> = 4.18μg/mL; LNCaP-FGC, ED<sub>50</sub> = 22.12μg/mL). Source:  
DA DOU *Glycine max* (Soybean phytochemical concentrate: yield =  
0.0039%dw). Ref: 4630.

**5344 1*S*,13-Diacetyloxy-4*S*-hydroxy-6*R*-(3-furancarboxyloxy-9*S*-cinna-  
moyloxy- $\beta$ -dihydroagarofuran**

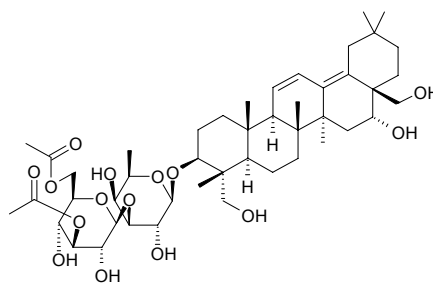
C<sub>33</sub>H<sub>38</sub>O<sub>11</sub> (610.66). Yellow oil, [ $\alpha$ ]<sub>D</sub> = +87.5° (*c* = 4.20, CHCl<sub>3</sub>). Pharm:  
Cytotoxic inactive (hmn Bel7402, HL-60, A549 and mouse P<sub>388</sub>, all IC<sub>50</sub> >  
100μmol/L). Source: *Euonymus nanoides* (seed: yield = 0.0035%dw). Ref:  
1129.

**5345 4',6''-Diacetyl puerarin**

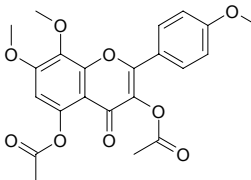
C<sub>25</sub>H<sub>26</sub>O<sub>11</sub> (502.48). Source: GE GEN *Pueraria lobata* [Syn. *Pueraria  
thunbergiana*; *Pueraria pseudohirsuta*]. Ref: 2.

**5346 3'',6''-*O*,*O*-diacetylsaikosaponin b<sub>2</sub>**

C<sub>46</sub>H<sub>72</sub>O<sub>15</sub> (865.08). Source: WEN CHUAN CHAI HU *Bupleurum  
wenchuanense*. Ref: 2247.

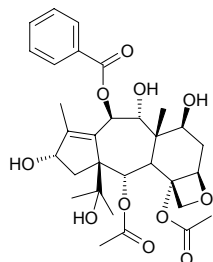
**5347 3,5-Diacetyltambulin**

C<sub>22</sub>H<sub>20</sub>O<sub>9</sub> (428.40). Pharm: Platelet aggregation inhibitor. Source: QUAN  
YUAN YE HUA JIAO *Zanthoxylum integrifolium*. Ref: 2176.

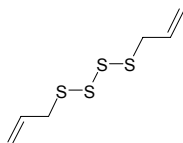


**5348 7,9-Diacetyltaxayuntin**

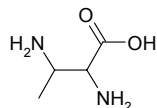
10 $\beta$ -Benzyloxy-2 $\alpha$ ,4 $\alpha$ -diacetoxy-5 $\beta$ ,20-epoxy-1 $\beta$ ,7 $\beta$ ,9 $\alpha$ ,13 $\alpha$ -tetrahydrox-11(15 $\rightarrow$ 1)-abeo-taxene C<sub>31</sub>H<sub>40</sub>O<sub>11</sub> (588.66). mp 242~243°C; 266~268°C. Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*, YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 662.

**5349 Diallyl tetrasulfide**

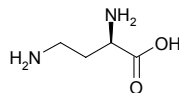
[2444-49-7] C<sub>6</sub>H<sub>10</sub>S<sub>4</sub> (210.40). Source: DA SUAN *Allium sativum*. Ref: 2.

**5350 2,3-Diaminobutyric acid**

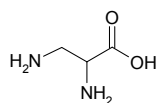
C<sub>4</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub> (118.14). Source: DUO HUA HUANG JING *Polygonatum cyrtonema* [Syn. *Polygonatum multiflorum*], MO GU *Agaricus campestris*. Ref: 6, 660.

**5351 L- $\alpha$ , $\gamma$ -Diaminobutyric acid**

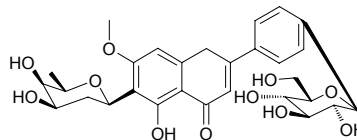
2,4-Diaminobutyric acid C<sub>4</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub> (118.14). mp 205°C (dec). Pharm: Causes chronic ammonia toxicosis (liver damage, tingle and tic, blocks displace of carbamoyl of ornithine). Source: DUO HUA HUANG JING *Polygonatum cyrtonema* [Syn. *Polygonatum multiflorum*], LIN SHENG SHAN LI DOU *Lathyrus sylvestris*, MO GU *Agaricus campestris*, SU GEN XIANG WAN DOU *Lathyrus latifolius*, *Acacia* sp. Ref: 6, 658, 660.

**5352  $\alpha$ , $\beta$ -Diaminopropionic acid**

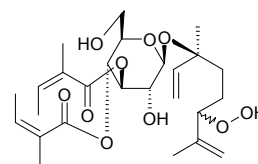
C<sub>3</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub> (104.11). mp (-) 193°C, ( $\pm$ ) 110~120°C. Source: WANG GUA ZI *Trichosanthes cucumeroides*. Ref: 6.

**5353 Diandraflavone**

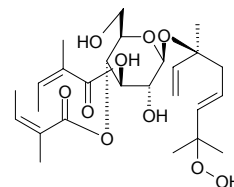
C<sub>29</sub>H<sub>34</sub>O<sub>11</sub> (558.59). Pharm: Antioxidant (selectively inhibits superoxide anion generation, hmn neutrophils, stimulated by fMLP/CB, IC<sub>50</sub> = 10 $\mu$ g/mL). Source: ER RUI HE LIAN DOU *Drymaria diandra* [Syn. *Drymaria cordata* ssp. *diandra*] (whole herb: yield = 0.00003%). Ref: 4758.

**5354 (3S)-3-O-(3',4'-Diangeloyl- $\beta$ -D-glucopyranosyloxy)-6-hydroperoxy-3,7-dimethylocta-1,7-diene**

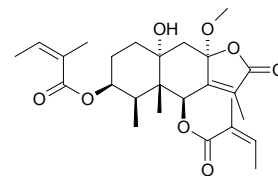
C<sub>26</sub>H<sub>40</sub>O<sub>10</sub> (512.60). Colorless oil. [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -5.1° (c = 0.15, CHCl<sub>3</sub>). Source: DONG FENG CAI *Doellingeria scaber* [Syn. *Aster scaber*] (aerial parts). Ref: 4102.

**5355 (3S)-3-O-(3',4'-Diangeloyl- $\beta$ -D-glucopyranosyloxy)-7-hydroperoxy-3,7-dimethylocta-1,5-diene**

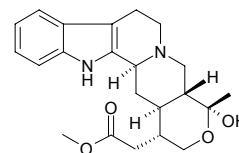
C<sub>26</sub>H<sub>40</sub>O<sub>10</sub> (512.60). Colorless oil. [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -13.1° (c = 0.48, CHCl<sub>3</sub>). Source: DONG FENG CAI *Doellingeria scaber* [Syn. *Aster scaber*] (aerial parts). Ref: 4102.

**5356 3 $\beta$ ,6 $\beta$ -Diangeloyloxy-10 $\alpha$ -hydroxy-8 $\alpha$ -methoxyeremophilinide**

C<sub>26</sub>H<sub>36</sub>O<sub>8</sub> (476.57). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -109.8° (c = 0.56, CHCl<sub>3</sub>). Source: TU ER FENG XIE JIA CAO *Cacalia ainsliaeflora*. Ref: 5428.

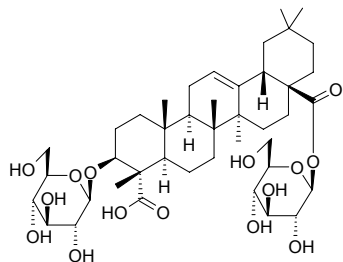
**5357 Diangoutengjian I**

C<sub>22</sub>H<sub>28</sub>N<sub>2</sub>O<sub>4</sub> (384.48). Colorless block crystals, mp 190~191°C. Source: DIAN GOU TENG *Uncaria yunnanensis*. Ref: 869.

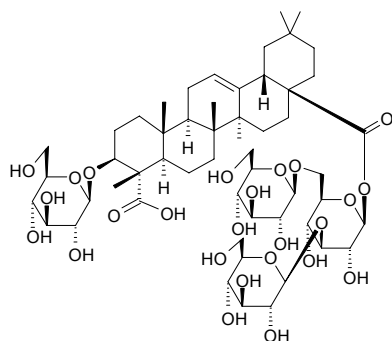


**5358 Dianoside A**

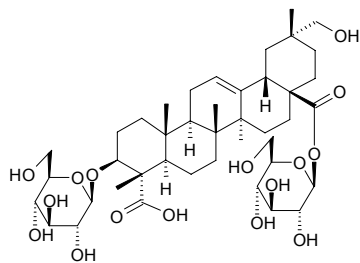
[91652-87-8]  $C_{42}H_{66}O_{15}$  (810.99). Pharm: Analgesic. Source: CHANG E QU MAI *Dianthus superbus* var. *longicalycinus*, BIAN SE SHI ZHU *Dianthus versicolor*, QU MAI *Dianthus superbus*. Ref: 658, 1530, 1531, 1532, 1533, 4450, 5501.

**5359 Dianoside B**

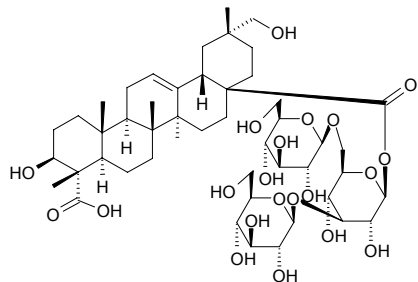
$C_{54}H_{86}O_{25}$  (1135.27). Pharm: Antihepatotoxin (aglucon is active component, liver damage caused by  $CCl_4$ ); analgesic (mus, acetic acid-induced writhing model,  $InRt = 68\%$ ). Source: BIAN SE SHI ZHU *Dianthus versicolor*, QU MAI *Dianthus superbus*. Ref: 1530, 1531, 1532, 1533, 5501.

**5360 Dianoside C**

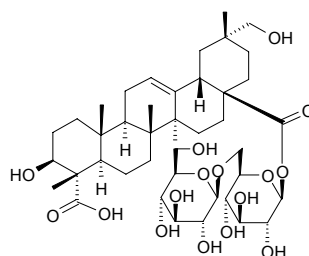
[91652-89-0]  $C_{42}H_{66}O_{16}$  (826.98). Source: BIAN SE SHI ZHU *Dianthus versicolor*. Ref: 1530, 1531, 1532, 1533.

**5361 Dianoside D**

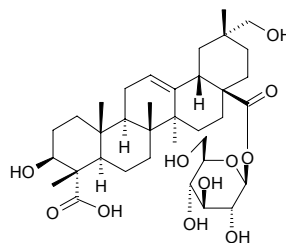
[91652-90-3]  $C_{48}H_{76}O_{21}$  (989.13). Source: BIAN SE SHI ZHU *Dianthus versicolor*. Ref: 1530, 1531, 1532, 1533.

**5362 Dianoside E**

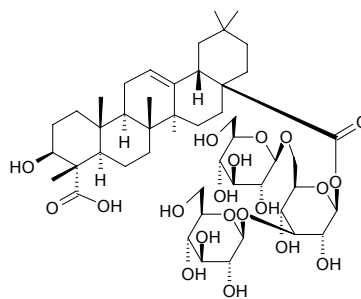
[91652-23-2]  $C_{42}H_{66}O_{16}$  (826.98). Source: BIAN SE SHI ZHU *Dianthus versicolor*. Ref: 1530, 1531, 1532, 1533.

**5363 Dianoside F**

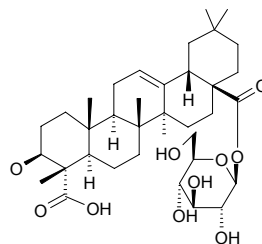
[91652-25-4]  $C_{36}H_{56}O_{11}$  (664.84). Source: BIAN SE SHI ZHU *Dianthus versicolor*. Ref: 1530, 1531, 1532, 1533.

**5364 Dianoside G**

[96333-09-4]  $C_{48}H_{76}O_{20}$  (973.13). Source: CHANG E QU MAI *Dianthus superbus* var. *longicalycinus*, BIAN SE SHI ZHU *Dianthus versicolor*. Ref: 1530, 1531, 1532, 1533, 4450.

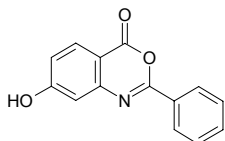
**5365 Dianoside H**

[96333-10-7]  $C_{36}H_{56}O_{10}$  (648.84). Source: BIAN SE SHI ZHU *Dianthus versicolor*. Ref: 1530, 1531, 1532, 1533.

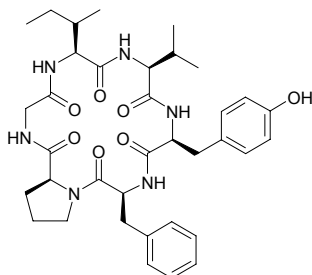


**5366 Dianthalexine**

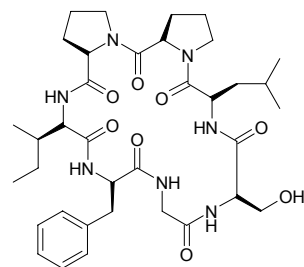
[85914-62-4] C<sub>14</sub>H<sub>9</sub>NO<sub>3</sub> (239.23). **Pharm:** Antifungal. **Source:** SHE XIANG SHI ZHU *Dianthus caryophyllus*. **Ref:** 658, 1521.

**5367 Dianthin C**

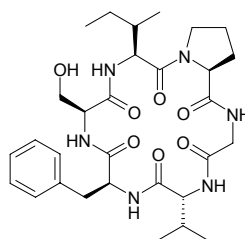
C<sub>36</sub>H<sub>48</sub>N<sub>6</sub>O<sub>7</sub> (676.82). Pale yellow powder,  $[\alpha]_D^{21} = -50^\circ$  ( $c = 0.17$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 17.17 μg/mL; Hep3B, IC<sub>50</sub> > 20 μg/mL; MCF7, IC<sub>50</sub> > 20 μg/mL; A549, IC<sub>50</sub> > 20 μg/mL; MDA-MB-231, IC<sub>50</sub> > 20 μg/mL; control Doxorubicin, HepG<sub>2</sub>, IC<sub>50</sub> = 0.19 μg/mL; Hep3B, IC<sub>50</sub> = 0.31 μg/mL; MCF7, IC<sub>50</sub> = 1.21 μg/mL; A549, IC<sub>50</sub> = 0.19 μg/mL; MDA-MB-231, IC<sub>50</sub> = 0.73 μg/mL). **Source:** QU MAI *Dianthus superbus* (aerial parts: yield = 0.0033%dw). **Ref:** 4765.

**5368 Dianthin D**

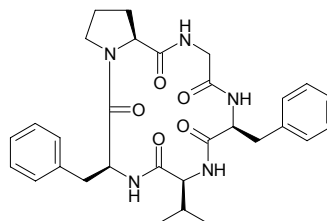
C<sub>36</sub>H<sub>53</sub>N<sub>7</sub>O<sub>8</sub> (711.87). Pale yellow powder,  $[\alpha]_D^{21} = -19.6^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> > 20 μg/mL; Hep3B, IC<sub>50</sub> > 20 μg/mL; MCF7, IC<sub>50</sub> > 20 μg/mL; A549, IC<sub>50</sub> > 20 μg/mL; MDA-MB-231, IC<sub>50</sub> > 20 μg/mL; control Doxorubicin, HepG<sub>2</sub>, IC<sub>50</sub> = 0.19 μg/mL; Hep3B, IC<sub>50</sub> = 0.31 μg/mL; MCF7, IC<sub>50</sub> = 1.21 μg/mL; A549, IC<sub>50</sub> = 0.19 μg/mL; MDA-MB-231, IC<sub>50</sub> = 0.73 μg/mL). **Source:** QU MAI *Dianthus superbus* (aerial parts: yield = 0.0005%dw). **Ref:** 4765.

**5369 Dianthin E**

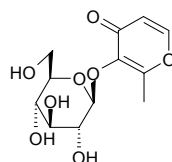
C<sub>30</sub>H<sub>44</sub>N<sub>6</sub>O<sub>7</sub> (600.72). Pale yellow powder,  $[\alpha]_D^{21} = -30.5^\circ$  ( $c = 0.02$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 2.37 μg/mL; Hep3B, IC<sub>50</sub> > 20 μg/mL; MCF7, IC<sub>50</sub> > 20 μg/mL; A549, IC<sub>50</sub> > 20 μg/mL; MDA-MB-231, IC<sub>50</sub> > 20 μg/mL; control Doxorubicin, HepG<sub>2</sub>, IC<sub>50</sub> = 0.19 μg/mL; Hep3B, IC<sub>50</sub> = 0.31 μg/mL; MCF7, IC<sub>50</sub> = 1.21 μg/mL; A549, IC<sub>50</sub> = 0.19 μg/mL; MDA-MB-231, IC<sub>50</sub> = 0.73 μg/mL). **Source:** QU MAI *Dianthus superbus* (aerial parts: yield = 0.0022%dw). **Ref:** 4765.

**5370 Dianthin F**

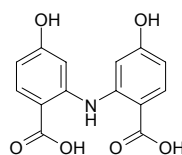
C<sub>30</sub>H<sub>37</sub>N<sub>5</sub>O<sub>5</sub> (547.66). Pale yellow powder,  $[\alpha]_D^{21} = -16.0^\circ$  ( $c = 0.03$ , MeOH). **Source:** QU MAI *Dianthus superbus* (aerial parts: yield = 0.0005%dw). **Ref:** 4765.

**5371 Dianthoside**

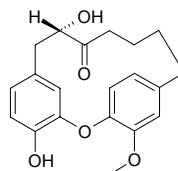
Maltol-3-*O*-β-*D*-glucopyranoside [20847-13-6] C<sub>12</sub>H<sub>16</sub>O<sub>8</sub> (288.26). **Source:** SHI ZHU *Dianthus chinensis*, JIN JI WEI BA CAO GEN *Macrothelypteris oligophlebia*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 1238, 1488, 1529.

**5372 Dianthramine**

[136945-65-8] C<sub>14</sub>H<sub>11</sub>NO<sub>6</sub> (289.25). **Pharm:** Antifungal. **Source:** SHE XIANG SHI ZHU *Dianthus caryophyllus*. **Ref:** 522, 658.

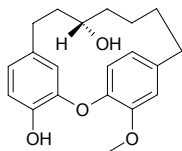
**5373 Diarylheptanoid CPB-51-262-1**

C<sub>20</sub>H<sub>22</sub>O<sub>5</sub> (342.40). Brown solid,  $[\alpha]_D^{25} = -81.13^\circ$  ( $c = 0.03$ , MeOH). **Pharm:** Cytotoxic inactive (MTT assay, HT29 cell line, MCF7 cell line). **Source:** HU TAO QIU *Juglans mandshurica* (root). **Ref:** 4321.

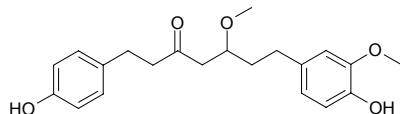


**5374 Diarylheptanoid CPB-51-262-2**

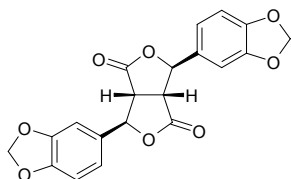
$C_{20}H_{24}O_4$  (328.41). Yellow oil,  $[\alpha]_D^{25} = -39.07^\circ$  ( $c = 0.21$ , MeOH). **Pharm:** Cytotoxic inactive (MTT assay, HT29 cell line, MCF7 cell line). **Source:** HU TAO QIU *Juglans mandshurica* (root). **Ref:** 4321.

**5375 Diarylheptanoid CPB-51-262-4**

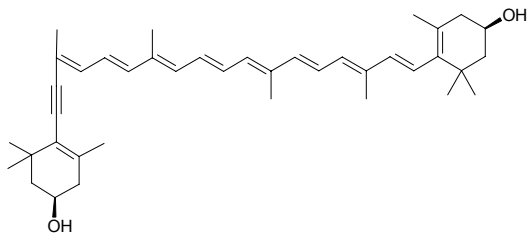
$C_{21}H_{26}O_5$  (358.44). Brown oil,  $[\alpha]_D^{21} = -7.1^\circ$  ( $c = 0.42$ , MeOH). **Pharm:** Cytotoxic (MTT assay, HT29 cell line,  $IC_{50} = 41.3 \mu\text{g/mL}$ ; MCF7 cell line,  $IC_{50} = 50 \mu\text{g/mL}$ )<sup>[4321]</sup>. **Source:** HU TAO QIU *Juglans mandshurica* (root). **Ref:** 4321.

**5376 (-)-Diasamin-di- $\gamma$ -lactone**

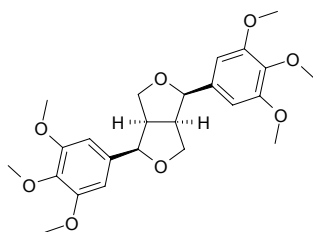
$C_{20}H_{14}O_8$  (382.33). Colorless needles (Me<sub>2</sub>CO), mp 188~189°C,  $[\alpha]_D^{26} = -47.4^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>). **Source:** PI ZHEN XING YAO HUA *Wikstroemia lanceolata* (stem and root). **Ref:** 4947.

**5377 Diatoxanthin**

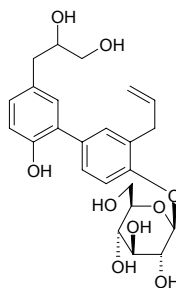
$C_{40}H_{54}O_2$  (566.88). **Pharm:** Anti-carcinogenic (inhibits 50nmol/L 12-*O*-tetradecanoyl phorbol 13-acetate (TPA)-stimulated <sup>32</sup>P-incorporation into the phospholipids of HeLa cells, 25 $\mu\text{g/mL}$ , InRt = 48.2%)<sup>[4256]</sup>. **Source:** ER JIAO DUO JIA ZAO *Peridinium bipes*. **Ref:** 4256.

**5378 Diyangambin**

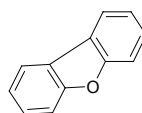
Lirioresinol dimethyl ether [21453-68-9]  $C_{24}H_{30}O_8$  (446.50). **Pharm:** Cytotoxic (Meth-A sarcoma cell line,  $ED_{50} > 10 \mu\text{g/mL}$ , LLC cell line,  $ED_{50} > 10 \mu\text{g/mL}$ )<sup>[3510]</sup>. **Source:** QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*; *Artemisia caruifolia*] (aerial parts). **Ref:** 3510.

**5379 1,1'-Dibenzene-6',8',9'-trihydroxy-3-allyl-4-*O*- $\beta$ -D-glucopyranoside**

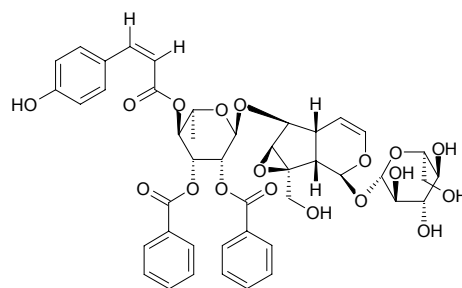
$C_{24}H_{30}O_9$  (462.50). Colorless glue. **Source:** DA YE HOU PO *Magnolia rostrata*. **Ref:** 2030.

**5380 Dibenzofuran**

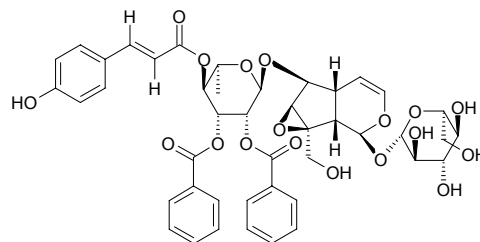
$C_{12}H_8O$  (168.20). **Source:** CHUAN XU DUAN *Dipsacus asperoides*. **Ref:** 660.

**5381 6-*O*- $\alpha$ -L-(2''-*O*-,3''-*O*-Dibenzoyl,4''-*O*-*cis*-*p*-coumaroyl)rhamno-pyranosylcatalpol**

$C_{44}H_{46}O_{18}$  (862.85). **Source:** FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts). **Ref:** 3954.

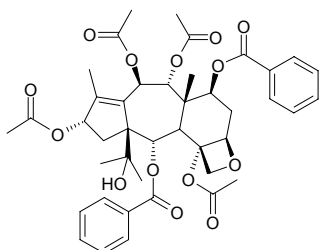
**5382 6-*O*- $\alpha$ -L-(2''-*O*-,3''-*O*-Dibenzoyl,4''-*O*-*trans*-*p*-coumaroyl)rhamno-pyranosylcatalpol**

$C_{44}H_{46}O_{18}$  (862.85). **Source:** FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts). **Ref:** 3954.



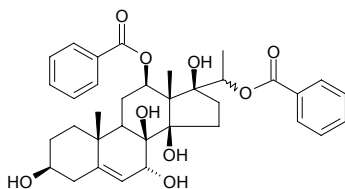
**5383 2 $\alpha$ ,7 $\beta$ -Dibenzoyl-5 $\beta$ ,20-epoxy-1 $\beta$ -hydroxy-4 $\alpha$ ,9 $\alpha$ ,10 $\beta$ ,13 $\alpha$ -tetra-acetoxytax-11-ene**

C<sub>42</sub>H<sub>48</sub>O<sub>14</sub> (776.84). Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.



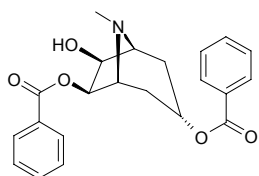
**5384 Dibenzoylgagaimol**

[38753-71-8] C<sub>35</sub>H<sub>42</sub>O<sub>9</sub> (606.72). mp 192~197°C. Source: LUO MO *Metaplexis japonica*. Ref: 6.



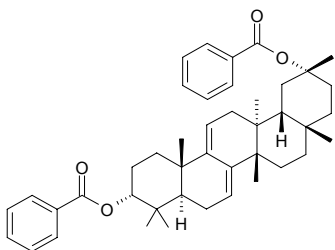
**5385 3 $\alpha$ ,7 $\beta$ -Dibenzoyloxy-6 $\beta$ -hydroxy-tropane**

C<sub>22</sub>H<sub>23</sub>NO<sub>5</sub> (381.43). mp 220°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +10° (*c* = 0.1, EtOH). Source: *Erythroxylon alaternifolium* (leaf). Ref: 3999.



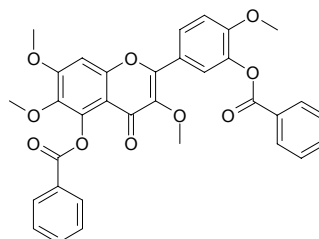
**5386 3,29-*O*-Dibenzoyloxykaroundiol**

C<sub>43</sub>H<sub>54</sub>O<sub>4</sub> (634.91). Colorless needles, mp 149~152°C (*n*-hexane), [ $\alpha$ ]<sub>D</sub> = +9.1° (*c* = 0.17, CHCl<sub>3</sub>). Source: FENG GUA *Gymnopetalum integrifolium* (fruit). Ref: 4189.



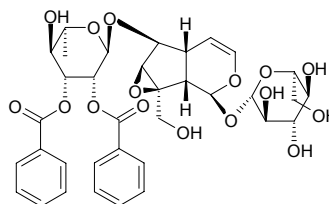
**5387 5,3'-Dibenzoyloxy-3,6,7,4'-tetramethoxyflavone**

C<sub>33</sub>H<sub>26</sub>O<sub>10</sub> (582.57). mp 220~222°C. Pharm: Cytotoxic (*in vitro*, Col2, ED<sub>50</sub> > 20 $\mu$ g/mL; hTERT-RPE1, ED<sub>50</sub> = 4.3 $\mu$ g/mL; HUVEC, ED<sub>50</sub> > 20 $\mu$ g/mL; KB, ED<sub>50</sub> > 20 $\mu$ g/mL; HUVEC, ED<sub>50</sub> > 20 $\mu$ g/mL; Lu1, ED<sub>50</sub> = 6.5 $\mu$ g/mL). Source: HUANG JING YE *Vitex negundo*. Ref: 4699.



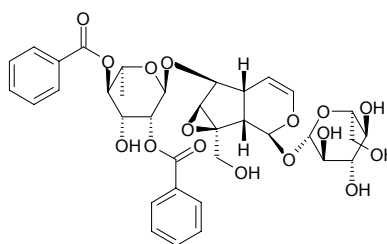
**5388 6-*O*- $\alpha$ -L-(2''-*O*-,3''-*O*-Dibenzoyl)rhamnopyranosylcatalpol**

C<sub>35</sub>H<sub>40</sub>O<sub>16</sub> (716.70). Source: FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts). Ref: 3954.



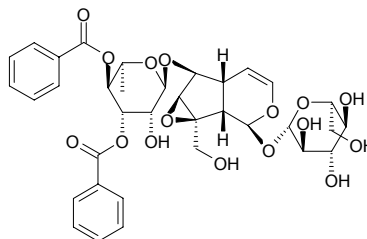
**5389 6-*O*- $\alpha$ -L-(2''-*O*-,4''-*O*-Dibenzoyl)rhamnopyranosylcatalpol**

C<sub>35</sub>H<sub>40</sub>O<sub>16</sub> (716.70). Pale yellow powder. Source: FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts). Ref: 3954.



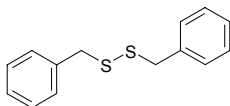
**5390 6-*O*- $\alpha$ -L-(3''-*O*-,4''-*O*-Dibenzoyl)rhamnopyranosylcatalpol**

C<sub>35</sub>H<sub>40</sub>O<sub>16</sub> (716.70). Pale yellow powder. Source: FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts). Ref: 3954.

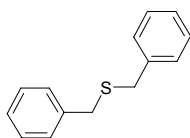


**5391 Dibenzyl disulphide**

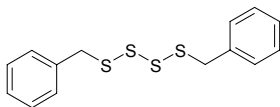
$C_{14}H_{14}S_2$  (246.40). Yellow amorphous solid. **Pharm:** Antifungal (plant pathogenic fungi *Cladosporium sphaerospermum*, MIC = 0.1 $\mu$ g, control Nystatin, MIC = 1.0 $\mu$ g; *Cladosporium cladosporioides*, MIC = 1.0 $\mu$ g, Nystatin, MIC = 1.0 $\mu$ g); antineoplastic (mechanism-based yeast bioassay for DNA-modifying agents, mutant yeast *Saccharomyces cerevisiae*: RS 188N (rad+), IC<sub>12</sub> = 332 $\mu$ g/mL; RS 321, IC<sub>12</sub> = 66 $\mu$ g/mL; RS 52YK (rad 52Y), IC<sub>12</sub> = 16 $\mu$ g/mL, control Camptothecin, RS 52YK(rad 52Y), IC<sub>12</sub> = 0.6 $\mu$ g/mL). **Source:** SUAN CHOU MU JI CAO *Petiveria alliacea* (root, stem and leaf). **Ref:** 5159.

**5392 Dibenzyl sulphide**

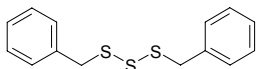
$C_{14}H_{14}S$  (214.33). Yellow oil. **Pharm:** Antifungal (plant pathogenic fungi *Cladosporium sphaerospermum*, MIC = 1.0 $\mu$ g, control Nystatin, MIC = 1.0 $\mu$ g; *Cladosporium cladosporioides*, MIC = 1.0 $\mu$ g, Nystatin, MIC = 1.0 $\mu$ g); antineoplastic (mechanism-based yeast bioassay for DNA-modifying agents, mutant yeast *Saccharomyces cerevisiae*: RS 188N (rad+), IC<sub>12</sub> = 402 $\mu$ g/mL; RS 321, IC<sub>12</sub> = 381 $\mu$ g/mL; RS 52YK (rad 52Y), IC<sub>12</sub> = 412 $\mu$ g/mL, control Camptothecin, RS 52YK(rad 52Y), IC<sub>12</sub> = 0.6 $\mu$ g/mL). **Source:** SUAN CHOU MU JI CAO *Petiveria alliacea* (root, stem and leaf). **Ref:** 5159.

**5393 Dibenzyl tetrasulphide**

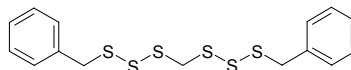
$C_{14}H_{14}S_4$  (310.52). Orange amorphous solid. **Pharm:** Antifungal (plant pathogenic fungi *Cladosporium sphaerospermum*, MIC = 10.0 $\mu$ g, control Nystatin, MIC = 1.0 $\mu$ g; *Cladosporium cladosporioides*, MIC = 10.0 $\mu$ g, Nystatin, MIC = 1.0 $\mu$ g); antineoplastic (mechanism-based yeast bioassay for DNA-modifying agents, mutant yeast *Saccharomyces cerevisiae*: RS 188N (rad+), IC<sub>12</sub> = 328 $\mu$ g/mL; RS 321, IC<sub>12</sub> = 53 $\mu$ g/mL; RS 52YK (rad 52Y), IC<sub>12</sub> = 104 $\mu$ g/mL, control Camptothecin, RS 52YK(rad 52Y), IC<sub>12</sub> = 0.6 $\mu$ g/mL). **Source:** SUAN CHOU MU JI CAO *Petiveria alliacea* (root, stem and leaf). **Ref:** 5159.

**5394 Dibenzyl trisulphide**

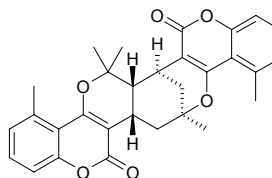
$C_{14}H_{14}S_3$  (278.46). Yellow amorphous solid. **Pharm:** Antifungal (plant pathogenic fungi *Cladosporium sphaerospermum*, MIC = 1.0 $\mu$ g, control Nystatin, MIC = 1.0 $\mu$ g; *Cladosporium cladosporioides*, MIC = 1.0 $\mu$ g, Nystatin, MIC = 1.0 $\mu$ g); antineoplastic (mechanism-based yeast bioassay for DNA-modifying agents, mutant yeast *Saccharomyces cerevisiae*: RS 188N (rad+), IC<sub>12</sub> = 73 $\mu$ g/mL; RS 321, IC<sub>12</sub> = 64 $\mu$ g/mL; RS 52YK (rad 52Y), IC<sub>12</sub> = 62 $\mu$ g/mL, control Camptothecin, RS 52YK(rad 52Y), IC<sub>12</sub> = 0.6 $\mu$ g/mL). **Source:** SUAN CHOU MU JI CAO *Petiveria alliacea* (root, stem and leaf). **Ref:** 5159.

**5395 Di(benzyltrithio)methane**

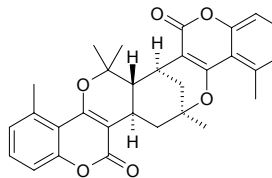
$C_{15}H_{16}S_6$  (388.68). Orange amorphous solid. **Pharm:** Antifungal (plant pathogenic fungi *Cladosporium sphaerospermum*, MIC = 5.0 $\mu$ g, control Nystatin, MIC = 1.0 $\mu$ g; *Cladosporium cladosporioides*, MIC = 5.0 $\mu$ g, Nystatin, MIC = 1.0 $\mu$ g); antineoplastic (mechanism-based yeast bioassay for DNA-modifying agents, mutant yeast *Saccharomyces cerevisiae*: RS 188N (rad+), IC<sub>12</sub> = 76 $\mu$ g/mL; RS 321, IC<sub>12</sub> = 58 $\mu$ g/mL; RS 52YK (rad 52Y), IC<sub>12</sub> = 67 $\mu$ g/mL, control Camptothecin, RS 52YK(rad 52Y), IC<sub>12</sub> = 0.6 $\mu$ g/mL). **Source:** SUAN CHOU MU JI CAO *Petiveria alliacea* (root, stem and leaf). **Ref:** 5159.

**5396 Dibothrioclinin I**

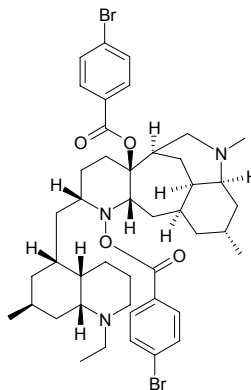
$C_{30}H_{28}O_6$  (484.55). Colorless block crystals, mp > 300°C,  $[\alpha]_D^{19} = +24^\circ$  ( $c = 0.05$ , CHCl<sub>3</sub>). **Source:** MAO DA DING CAO *Gerbera piloselloides*. **Ref:** 2564.

**5397 Dibothrioclinin II**

$C_{30}H_{28}O_6$  (484.55). Colorless plate crystals, mp > 300°C,  $[\alpha]_D^{19} = 0^\circ$  ( $c = 0.045$ , CHCl<sub>3</sub>). **Source:** MAO DA DING CAO *Gerbera piloselloides*. **Ref:** 2564.

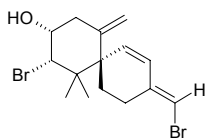
**5398 Di-p-bromobenzoate of tetrahydrodeoxyoxolucidine B**

$C_{44}H_{50}Br_2N_3O_4$  (853.79).  $[\alpha]_D^{21.5} = -30.5^\circ$  ( $c = 0.89$ , CHCl<sub>3</sub>). **Source:** GUANG LIANG SHI SONG *Lycopodium lucidulum*. **Ref:** 3927.

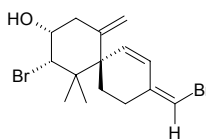


**5399 (E)-10,15-Dibromo-9-hydroxy-chamigra-1,3(15),7(14)-triene**

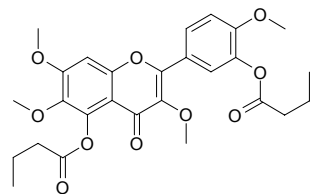
$C_{15}H_{20}Br_2O$  (376.13). Source: LUE DA AO DING ZAO *Laurencia majuscula*. Ref: 5191.

**5400 (Z)-10,15-Dibromo-9-hydroxy-chamigra-1,3(15),7(14)-triene**

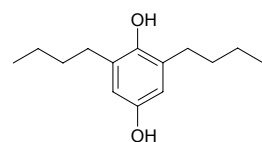
$C_{15}H_{20}Br_2O$  (376.13). Source: LUE DA AO DING ZAO *Laurencia majuscula*. Ref: 5191.

**5401 5,3'-Dibutanoyloxy-3,6,7,4'-tetramethoxyflavone**

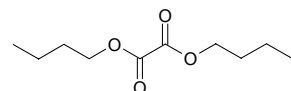
$C_{27}H_{30}O_{10}$  (514.53). mp 108–109°C. Pharm: Cytotoxic (*in vitro*, Col2,  $ED_{50}$  = 11.7  $\mu$ g/mL; hTERT-RPE1,  $ED_{50}$  = 0.6  $\mu$ g/mL; HUVEC,  $ED_{50}$  > 20  $\mu$ g/mL; KB,  $ED_{50}$  = 0.5  $\mu$ g/mL; HUVEC,  $ED_{50}$  = 0.8  $\mu$ g/mL; Lu1,  $ED_{50}$  = 1.7  $\mu$ g/mL)<sup>[4699]</sup>. Source: HUANG JING YE *Vitex negundo*. Ref: 4699.

**5402 2,6-Dibutyl-p-cresol**

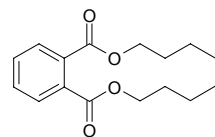
$C_{14}H_{22}O_2$  (222.33). Source: MIAN MA *Dryopteris filix-mas*. Ref: 1534.

**5403 Dibutyl oxalate**

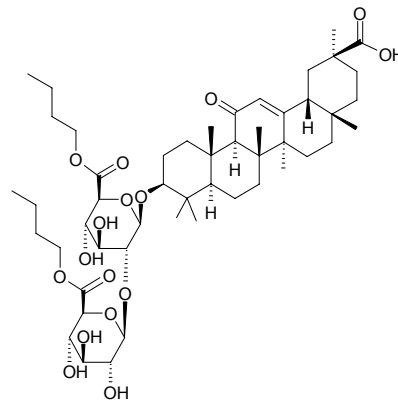
[2050-60-4]  $C_{10}H_{18}O_4$  (202.25). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 2.

**5404 Dibutyl phthalate**

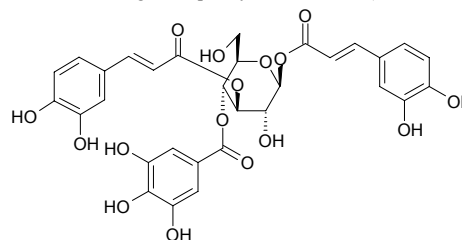
[84-74-2]  $C_{16}H_{22}O_4$  (278.35). Source: NIU XI *Achyranthes bidentata*, HUA DONG LAN CI TOU *Echinops grijsii*. Ref: 582, 660.

**5405 Dibutyl uralsaponin A ester**

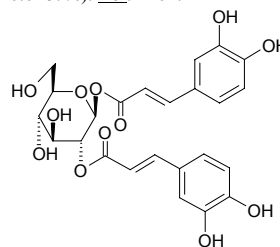
Inflasaponin IV; Glycyrrhetic acid-3-O- $\beta$ -D-6'-n-butyl-glucuronopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-6'-n-butyl-glucuronopyranoside  $C_{50}H_{78}O_{16}$  (935.17). Colorless powder, mp 234–236°C. Source: GAN CAO *Glycyrrhiza uralensis*, ZHANG GUO GAN CAO *Glycyrrhiza inflata*. Ref: 301, 880.

**5406 1,3-Di-O-(E)-caffeoyl-4-O-galloyl- $\beta$ -D-glucopyranose**

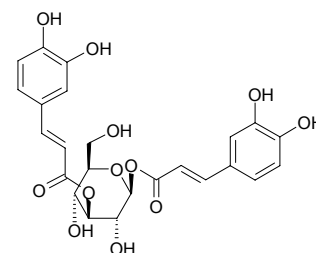
$C_{31}H_{28}O_{16}$  (656.56). Yellow amorphous powder,  $[\alpha]_D^{15}$  = -100.4° ( $c$  = 0.7, MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.1069%, underground part: yield = 0.0859%). Ref: 4101.

**5407 1,2-Di-O-(E)-caffeoyl- $\beta$ -D-glucopyranose**

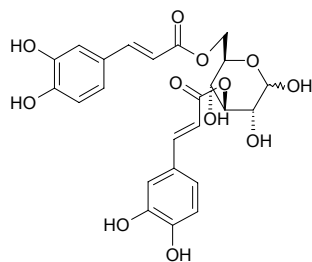
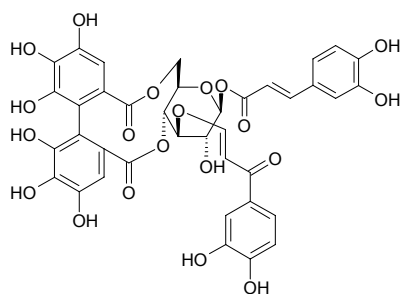
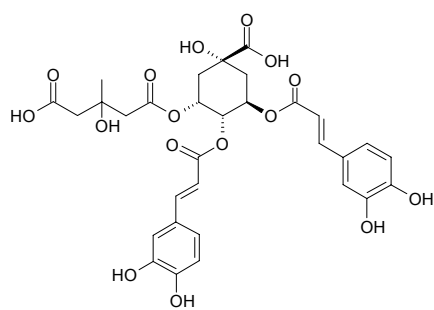
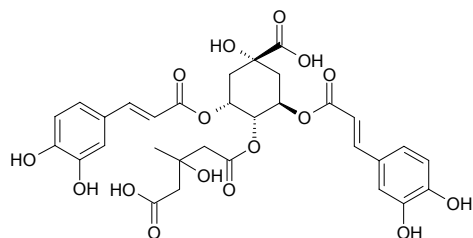
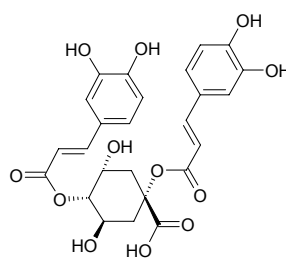
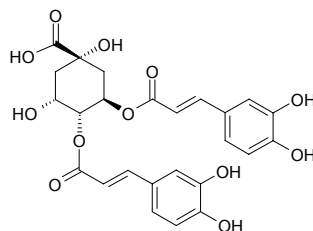
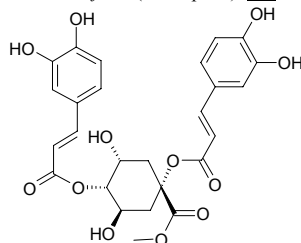
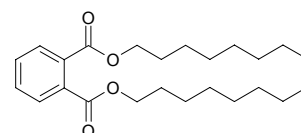
$C_{24}H_{24}O_{12}$  (504.45). Yellow amorphous powder,  $[\alpha]_D^{15}$  = -11.7° ( $c$  = 0.8, MeOH). Source: GE XUN *Balanophora japonica* (underground part: yield = 0.0287%). Ref: 4101.

**5408 1,3-Di-O-(E)-caffeoyl- $\beta$ -D-glucopyranose**

$C_{24}H_{24}O_{12}$  (504.45). Yellow amorphous powder,  $[\alpha]_D^{15}$  = -33.4° ( $c$  = 0.6, MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0014%). Ref: 4101.

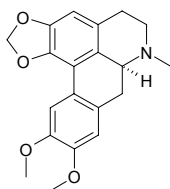




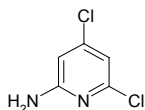
**5409 3,6-Di-*O*-caffeoyl- $\alpha/\beta$ -glucose**C<sub>24</sub>H<sub>24</sub>O<sub>12</sub> (504.45). Source: SHEN SHENG XUAN GOU ZI *Rubus sanctus*.Ref: 3421.**5410 1,3-Di-*O*-(*E*)-caffeoyl-4,6-(*S*)-HHDP- $\beta$ -*D*-glucopyranose**C<sub>38</sub>H<sub>30</sub>O<sub>20</sub> (806.65). Yellow amorphous powder,  $[\alpha]_D^{15} = -4.2^\circ$  ( $c = 0.6$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0092%). Ref: 4101.**5411 3,4-Di-*O*-caffeoyl-5-*O*-(3-hydroxy-3-methyl)glutaroyl quinic acid**C<sub>31</sub>H<sub>32</sub>O<sub>16</sub> (660.59). Source: ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. Ref: 2, 626.**5412 3,5-Di-*O*-caffeoyl-4-*O*-(3-hydroxy-3-methyl)glutaroylquinic acid**C<sub>31</sub>H<sub>32</sub>O<sub>16</sub> (660.59). Source: ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. Ref: 2, 626.**5413 1,4-Di-*O*-caffeoylquinic acid**C<sub>25</sub>H<sub>24</sub>O<sub>12</sub> (516.46). mp 229~230°C. Source: CANG ER *Xanthium sibiricum* [Syn. *Xanthium strumarium*]. Ref: 6.**5414 3,4-Di-*O*-caffeoylquinic acid**Isochlorogenic acid B [14534-61-3] C<sub>25</sub>H<sub>24</sub>O<sub>12</sub> (516.46). Pharm: Platelet aggregation inhibitor (rat, 500μg/mL, induced by ADP, InRt = 75%, induced by collagen, InRt = 42%); promotes release of prostacyclin PGI<sub>2</sub> (rat, 10μmol/L, 190.6%); increases coronary flow; Increases spread and mobility of macrophage (mus); anti-HIV (HIV-1 integrase inhibitor, inhibits replication of HIV); antineoplastic (mus, melanotic carcinoma B16, inhibits formation of melanin); antioxidant (cytoblast and microsome in hepatic cells, inhibits lipid peroxidization). Source: CU ZHUANG KA FEI *Coffea robusta*, SAI ER WEI YA SHI CAO *Achillea alexandri-regis*, XIAO GUO KA FEI *Coffea arabica*, ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*], *Artemisia* sp. Ref: 2, 626, 658, 1034, 1573, 1574, 1575, 1576, 2545.**5415 3,4-Di-*O*-caffeoylquinic acid methyl ester**C<sub>26</sub>H<sub>26</sub>O<sub>12</sub> (530.49). Pharm: Antiallergic (hyaluronidase inhibitor (activated hyaluronidase by compound 48/80, 0.2mmol/L, InRt = 31%, 76% inhibition of control DSCG)<sup>[3924]</sup>). Source: QUAN YUAN YE TE SA JU *Tessaria integrifolia* (aerial parts), XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 3924, 4184.**5416 Dicapryl phthalate**[117-84-0] C<sub>24</sub>H<sub>38</sub>O<sub>4</sub> (390.57). Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2.

**5417 (-)-Dicentrine**

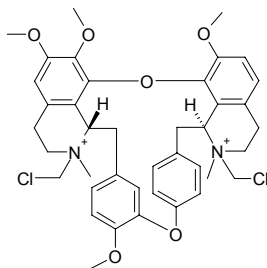
[517-66-8] C<sub>20</sub>H<sub>21</sub>NO<sub>4</sub> (339.39). **Pharm:** Analgesic; sedative; antitrypanosomal and cytotoxic (*Trypanosoma brucei brucei*, IC<sub>50</sub> = 14.6 μmol/L, Suramin, IC<sub>50</sub> = 0.06 μmol/L; hm cervixcarcinoma cell HeLa, IC<sub>50</sub> = 35 μmol/L)<sup>[4969]</sup>. **Source:** HE BAO DI BU RONG *Stephania dicentrinifera*, WU YE TENG *Cassytha filiformis*, XI XIAO HE BAO MU DAN *Dicentra pusilla*. **Ref:** 658, 4969.

**5418 2,4-Dichloro-6-aminopyridine**

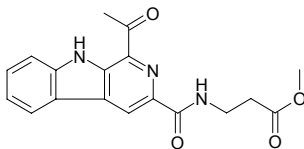
C<sub>5</sub>H<sub>4</sub>Cl<sub>2</sub>N<sub>2</sub> (163.01). mp 271°C. **Source:** KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. **Ref:** 6.

**5419 2',2'-N,N-Dichloromethyltetrandrine**

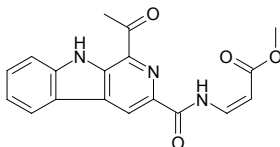
C<sub>40</sub>H<sub>46</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>6</sub><sup>2+</sup> (721.73). **Source:** FANG JI *Stephania tetrandra*. **Ref:** 2.

**5420 Dichotomide I**

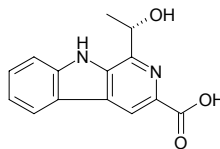
C<sub>18</sub>H<sub>17</sub>N<sub>3</sub>O<sub>4</sub> (339.35). Yellow powder. **Pharm:** β-Hexosaminidase release inhibitor inactive (RBL-2H3 cells); TNF-α release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated); IL-4 release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated). **Source:** YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root). **Ref:** 4761.

**5421 Dichotomide II**

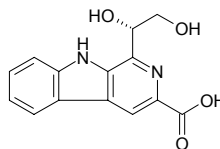
C<sub>18</sub>H<sub>15</sub>N<sub>3</sub>O<sub>4</sub> (337.34). Yellow powder, [α]<sub>D</sub><sup>19</sup> = +7.2° (c = 0.30, CHCl<sub>3</sub>). **Pharm:** β-Hexosaminidase release inhibitor inactive (RBL-2H3 cells); TNF-α release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated); IL-4 release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated). **Source:** YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root; yield = 0.0001%dw). **Ref:** 4761.

**5422 Dichotomine A**

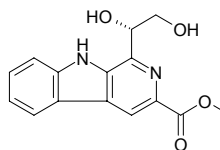
C<sub>14</sub>H<sub>12</sub>N<sub>2</sub>O<sub>3</sub> (256.26). Yellow powder, [α]<sub>D</sub><sup>27</sup> = -9.7° (c = 0.85, MeOH). **Pharm:** β-Hexosaminidase release inhibitor inactive (RBL-2H3 cells); TNF-α release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated); IL-4 release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated). **Source:** YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root; yield = 0.0014%dw). **Ref:** 4761.

**5423 Dichotomine B**

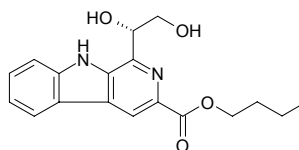
C<sub>14</sub>H<sub>12</sub>N<sub>2</sub>O<sub>4</sub> (272.26). Yellow powder, [α]<sub>D</sub><sup>27</sup> = -19.0° (c = 1.00, MeOH). **Pharm:** β-Hexosaminidase release inhibitor inactive (RBL-2H3 cells); TNF-α release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated); IL-4 release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated). **Source:** YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root; yield = 0.0009%dw). **Ref:** 4761.

**5424 Dichotomine C**

C<sub>15</sub>H<sub>14</sub>N<sub>2</sub>O<sub>4</sub> (286.29). Yellow powder, [α]<sub>D</sub><sup>27</sup> = -16.6° (c = 0.50, MeOH). **Pharm:** β-Hexosaminidase release inhibitor (RBL-2H3 cells, IC<sub>50</sub> = 62 μmol/L); TNF-α release inhibitor (RBL-2H3 cells, antigen-IgE-mediated, IC<sub>50</sub> = 19 μmol/L); IL-4 release inhibitor (RBL-2H3 cells, antigen-IgE-mediated, IC<sub>50</sub> = 15 μmol/L). **Source:** YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root; yield = 0.0016%dw). **Ref:** 4761.

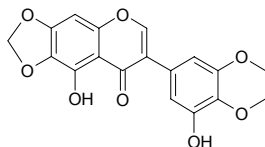
**5425 Dichotomine D**

C<sub>18</sub>H<sub>20</sub>N<sub>2</sub>O<sub>4</sub> (328.37). Yellow powder, [α]<sub>D</sub><sup>27</sup> = -1.8° (c = 0.75, CHCl<sub>3</sub>). **Pharm:** β-Hexosaminidase release inhibitor inactive (RBL-2H3 cells); TNF-α release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated); IL-4 release inhibitor inactive (RBL-2H3 cells, antigen-IgE-mediated). **Source:** YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root; yield = 0.0004%dw). **Ref:** 4761.

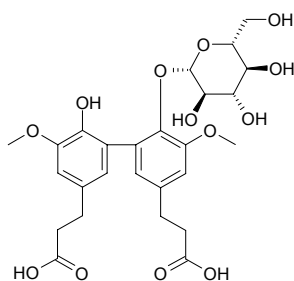


**5426 Dichotomitin**

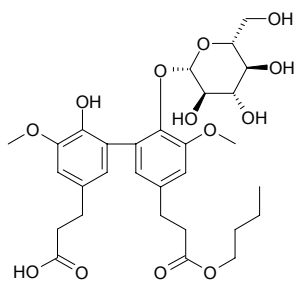
$C_{18}H_{14}O_8$  (358.31). Yellowish rhomboid crystals, mp 249~251°C. Source: BAI HUA SHE GAN *Iris dichotoma*, JUAN QIAO YUAN WEI *Iris potaninii* (underground part). Ref: 69, 4235.

**5427 Dichotomside A**

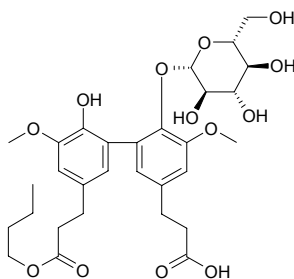
$C_{26}H_{32}O_{13}$  (552.54). White powder,  $[\alpha]_D^{27} = -2.3^\circ$  ( $c = 0.30$ , MeOH). Pharm:  $\beta$ -Hexosaminidase inhibitor inactive (RBL-2H3 cells, 100 $\mu$ mol/L, InRt = (1.0 $\pm$ 0.7)%), control Ketotifen fumarate, InRt = (19.1 $\pm$ 1.3)%. Source: YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root: yield = 0.0013%). Ref: 2571.

**5428 Dichotomside B**

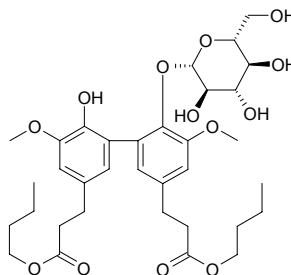
$C_{30}H_{40}O_{13}$  (608.65). White powder,  $[\alpha]_D^{27} = +8.4^\circ$  ( $c = 0.5$ , MeOH). Pharm:  $\beta$ -Hexosaminidase inhibitor inactive (RBL-2H3 cells, 100 $\mu$ mol/L, InRt = (8.2 $\pm$ 2.3)%), control Ketotifen fumarate, InRt = (19.1 $\pm$ 1.3)%. Source: YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root: yield = 0.0004%). Ref: 2571.

**5429 Dichotomside C**

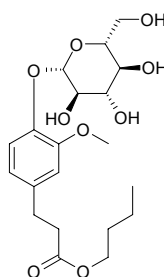
$C_{30}H_{40}O_{13}$  (608.65). White powder,  $[\alpha]_D^{27} = +5.5^\circ$  ( $c = 0.20$ , MeOH). Source: YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root: yield = 0.0009%). Ref: 2571.

**5430 Dichotomside D**

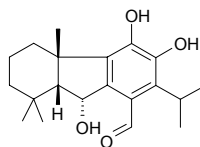
$C_{34}H_{48}O_{13}$  (664.75). White powder,  $[\alpha]_D^{27} = +7.4^\circ$  ( $c = 0.30$ , MeOH). Pharm:  $\beta$ -Hexosaminidase inhibitor (RBL-2H3 cells,  $IC_{50} = 64\mu$ mol/L, control Ketotifen fumarate  $IC_{50} = 216\mu$ mol/L); tumor necrosis factor- $\alpha$  inhibitor (TNF- $\alpha$ ) (RBL-2H3 cells,  $IC_{50} = 16\mu$ mol/L); interleukin-4 inhibitor (RBL-2H3 cells,  $IC_{50} = 34\mu$ mol/L); antiallergic (effective against the late-phase reactions in type I allergy than in the immediate phase). Source: YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root: yield = 0.0002%). Ref: 2571.

**5431 Dichotomside E**

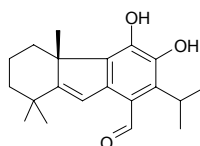
$C_{20}H_{30}O_9$  (414.46). White powder,  $[\alpha]_D^{27} = -29.5^\circ$  ( $c = 1.63$ , MeOH). Pharm:  $\beta$ -Hexosaminidase inhibitor inactive (RBL-2H3 cells, 100 $\mu$ mol/L, InRt = (5.7 $\pm$ 3.1)%), control Ketotifen fumarate, InRt = (19.1 $\pm$ 1.3)%. Source: YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root: yield = 0.0009%). Ref: 2571.

**5432 Dichroanal A**

*rel*-(4a*S*,9*R*,9a*S*)-8-formyl-1,2,3,4,4a,9a-hexahydro-5,6,9-trihydroxy-7-isopropyl-1,1,4a-trimethylfluorene  $C_{20}H_{28}O_4$  (332.44). Source: ER SE HUA SHU WEI CAO *Salvia dichroantha*. Ref: 1909.

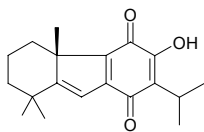
**5433 Dichroanal B**

4a*S*\*-8-formyl-2,3,4,4a-tetrahydro-5,6-dihydroxy-7-isopropyl-1,1,4a-trimethyl-1*H*-fluorene  $C_{20}H_{26}O_3$  (314.43). Source: ER SE HUA SHU WEI CAO *Salvia dichroantha*. Ref: 1909.

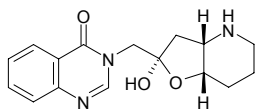


**5434 Dichroanone**

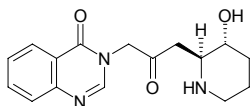
4a*S*\*-2,3,4,4a-tetrahydro-6-hydroxy-7-isopropyl-1,1,4a-trimethyl-5,8(1*H*)-fluorene-dione C<sub>19</sub>H<sub>24</sub>O<sub>3</sub> (300.40). Source: ER SE HUA SHU WEI CAO *Salvia dichroantha*. Ref: 1909.

**5435  $\alpha$ -Dichroine**

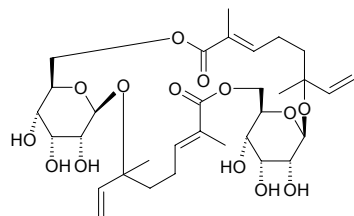
Isofebrifugine C<sub>16</sub>H<sub>19</sub>N<sub>3</sub>O<sub>3</sub> (301.35). mp 129~130°C. Pharm: Antimalarial; inhibits heart (rbt, iv, *in vitro*); antihypertensive (anesthetic cat, iv); uterine stimulant (anesthetic dog *in vivo*, pregnant rbt *in vitro*, rat *in vitro*). Source: CHANG SHAN *Dichroa febrifuga*, SAN XING XIU QIU *Hydrangea umbellata*. Ref: 4, 6, 658.

**5436  $\beta$ -Dichroine**

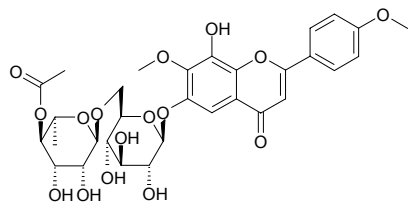
Febrivugine [24159-07-7] C<sub>16</sub>H<sub>19</sub>N<sub>3</sub>O<sub>3</sub> (301.35). mp 139~140°C. Pharm: Antimalarial (amoeba); antipyretic; uterine stimulant (anesthetic dog *in vivo*, pregnant rbt or rat, *in vitro*); emetic; LD<sub>50</sub> (mus, orl) = 2.5~3.0mg/kg. Source: CHANG SHAN *Dichroa febrifuga*. Ref: 658.

**5437 Dicliripariside A**

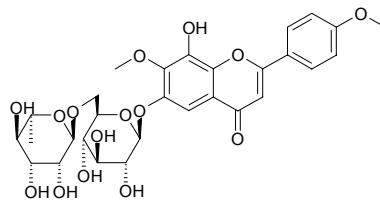
C<sub>32</sub>H<sub>48</sub>O<sub>14</sub> (656.73). Yellowish powder, mp 104~106°, [ $\alpha$ ]<sub>D</sub><sup>10</sup> = +0.127° (*c* = 0.11, MeOH). Source: HE AN GOU GAN CAI *Dicliptera riparia*. Ref: 1945.

**5438 Dicliripariside B**

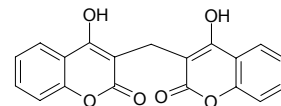
C<sub>31</sub>H<sub>36</sub>O<sub>16</sub> (664.62). Yellow powder, mp 210~212°C, [ $\alpha$ ]<sub>D</sub><sup>10</sup> = -0.9° (*c* = 0.01, MeOH:pyridine = 1:1). Source: HE AN GOU GAN CAI *Dicliptera riparia*. Ref: 1945.

**5439 Dicliripariside C**

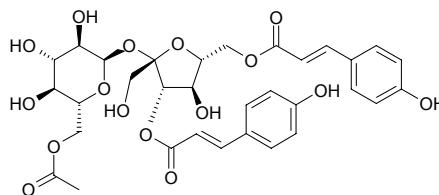
C<sub>29</sub>H<sub>34</sub>O<sub>15</sub> (622.59). Yellowish powder, mp 238~240°C, [ $\alpha$ ]<sub>D</sub><sup>10</sup> = -1.3° (*c* = 0.016, MeOH:pyridine = 1:1). Source: HE AN GOU GAN CAI *Dicliptera riparia*. Ref: 1945.

**5440 Dicoumarin**

Dicoumarol [66-76-2] C<sub>19</sub>H<sub>12</sub>O<sub>6</sub> (336.30). mp 288~289°C. Pharm: Antineoplastic (inhibits cellular proliferation of EAC, ID<sub>50</sub> of synthesis of nucleic acid = 11.5 $\mu$ g/mL); platelet aggregation inhibitor; rodenticide; antithrombotic (intravenous thrombus, pulmonary embolism, heart infarction and infarction caused by atrial fibrillation); toxin (bleeding). Source: BAI XIANG CAO MU XI *Melilotus albus*, HONG CHE ZHOU CAO *Trifolium pratense*, MU XU *Medicago sativa*, PI HAN CAO *Melilotus suaveolens*, *Anthoxanthum* sp. Ref: 4, 5, 6, 658.

**5441 3,6-Di-*O*-*p*-coumaroyl- $\beta$ -*D*-fructofuranosyl 6-*O*-acetyl- $\alpha$ -*D*-glucopyranoside**

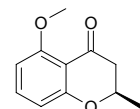
C<sub>32</sub>H<sub>36</sub>O<sub>16</sub> (676.63). Light yellow amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +23.4° (*c* = 0.25, MeOH). Source: JIAO YU *Canna edulis* (rhizome). Ref: 3836.

**5442 2,3-Dicresol**

[526-75-0] C<sub>8</sub>H<sub>10</sub>O (122.17). Source: DANG GUI *Angelica sinensis*. Ref: 2.

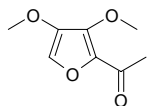
**5443 Dictafofin A**

C<sub>11</sub>H<sub>12</sub>O<sub>3</sub> (192.22). Colorless oil, [ $\alpha$ ]<sub>D</sub> = +62.3° (*c* = 0.015, Me<sub>2</sub>CO), [ $\alpha$ ]<sub>D</sub> = +30.08° (*c* = 0.02, CHCl<sub>3</sub>). Source: XIA YE BAI XIAN *Dictamnus angustifolius*. Ref: 1912.

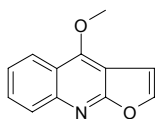


**5444 Dictafolin B**

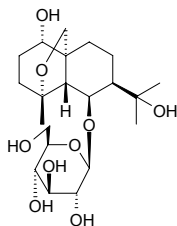
$C_8H_{10}O_4$  (170.17). Yellowish oil. Source: XIA YE BAI XIAN *Dictamnus angustifolius*. Ref: 1912.

**5445 Dictamnine**

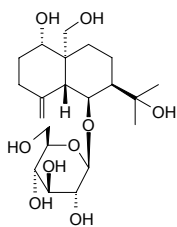
$C_{12}H_9NO_2$  (199.21). mp 132°C. Pharm: Antibacterial; antifungal; contracts blood vessels (blood vessel of rbt ear, *in vitro*); uterine stimulant (rbt and gpg); stimulates heart (frog heart *in vitro*, in low dose). Source: A NUO TI HUA JIAO *Zanthoxylum arnotianum*, BAI XIAN PI *Dictamnus dasycarpus* (root cortex: content = 0.12%)<sup>[5501]</sup>, CHU YE HUA JIAO *Zanthoxylum ailanthoides*, CHU YE HUA JIAO PI *Zanthoxylum ailanthoides*, DE KA RUI HUA JIAO *Zanthoxylum decaryi*, RI BEN BAI SONG FENG CAO *Boenninghausenia albiflora* var. *japonica*, YAN JIAO CAO *Boenninghausenia albiflora*, ZHU YE JIAO *Zanthoxylum planispinum*, ZHU YE JIAO GEN *Zanthoxylum planispinum*. Ref: 6, 658, 5501.

**5446 Dictamnoid A**

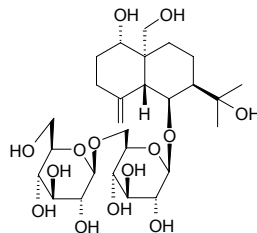
$C_{21}H_{36}O_9$  (432.52). Pharm: Immunoenhancer (*in vitro*, stimulates proliferation of T-cells, 0.00001 mol/L,  $P < 0.001$ ). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

**5447 Dictamnoid B**

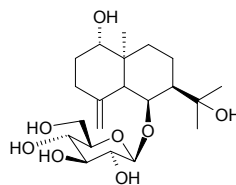
$C_{21}H_{36}O_9$  (432.52). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

**5448 Dictamnoid G**

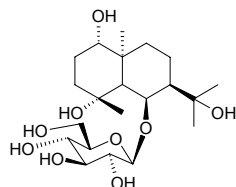
$C_{27}H_{46}O_{14}$  (594.66). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

**5449 Dictamnoid H**

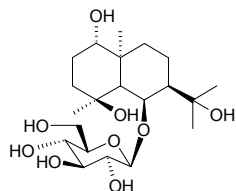
$C_{21}H_{36}O_8$  (416.52). White amorphous powder,  $[\alpha]_D^{24} = -13.2^\circ$  ( $c = 0.10$  MeOH). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

**5450 Dictamnoid I**

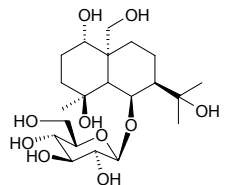
$C_{21}H_{38}O_9$  (434.53). White amorphous powder,  $[\alpha]_D^{24} = -21.4^\circ$  ( $c = 0.10$  MeOH). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

**5451 Dictamnoid J**

$C_{21}H_{38}O_9$  (434.53). White amorphous powder,  $[\alpha]_D^{24} = -15.7^\circ$  ( $c = 0.10$  MeOH). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

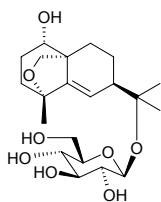
**5452 Dictamnoid K**

$C_{21}H_{38}O_{10}$  (450.53). White amorphous powder,  $[\alpha]_D^{24} = -24.2^\circ$  ( $c = 0.10$  MeOH). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

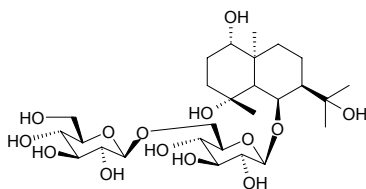


**5453 Dictamnaside L**

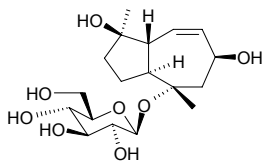
$C_{21}H_{34}O_8$  (414.5). White amorphous powder,  $[\alpha]_D^{24} = -12.7^\circ$  ( $c = 0.10$  MeOH). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

**5454 Dictamnaside M**

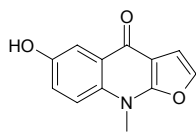
$C_{27}H_{48}O_{14}$  (596.68). White amorphous powder,  $[\alpha]_D^{24} = -24.0^\circ$  ( $c = 0.10$  MeOH). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

**5455 Dictamnaside N**

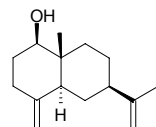
$C_{18}H_{30}O_8$  (374.44). White amorphous powder,  $[\alpha]_D^{24} = -34.3^\circ$  ( $c = 0.10$  MeOH). Source: BAI XIAN PI *Dictamnus dasycarpus* (root cortex). Ref: 3068.

**5456 Dictangustine A**

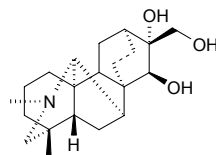
$C_{12}H_9NO_3$  (215.21). Yellowish powders ( $Me_2CO$ ), mp  $> 280^\circ C$ . Source: XIA YE BAI XIAN *Dictamnus angustifolius*. Ref: 1912.

**5457  $\beta$ -Dictyopterol**

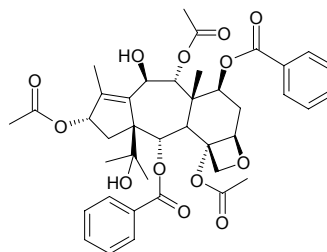
$C_{15}H_{24}O$  (220.36). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS,  $100\mu mol/L$ , InRt =  $(51.5 \pm 3.5)\%$ , control  $L$ -NMMA,  $100\mu mol/L$ , InRt =  $(79.2 \pm 0.9)\%$ ,  $p < 0.01$ ). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

**5458 Dictysine**

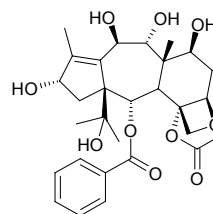
[67256-05-7]  $C_{21}H_{33}NO_3$  (347.50). Source: FU ZI *Aconitum carmichaeli*. Ref: 16.

**5459 2,7-Dideacetyl-2,7-dibenzoyl-taxayunnanine F**

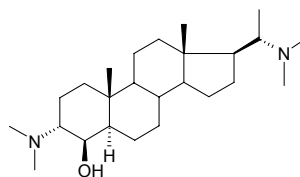
$C_{40}H_{46}O_{13}$  (734.80). mp  $203\sim 205^\circ C$ . Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**5460 7,13-Dideacetyl-9,10-debenzoyltaxchinin C**

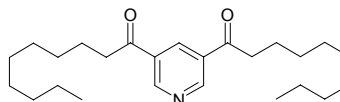
$C_{29}H_{38}O_{10}$  (546.62). mp  $162^\circ C$ ,  $[\alpha]_D = -15^\circ$  ( $CHCl_3$ ). Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**5461 N,O-Dideacetyl-N-methylpachysandrine A**

$C_{25}H_{46}N_2O$  (390.66). mp  $126\sim 150^\circ C$ . Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 6.

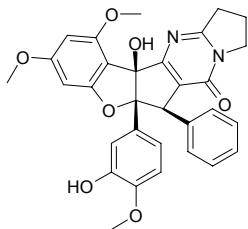
**5462 3,5-Didecanoylpyridine**

$C_{25}H_{41}NO_2$  (387.61). Source: YU XING CAO *Houttuynia cordata*. Ref: 2428.

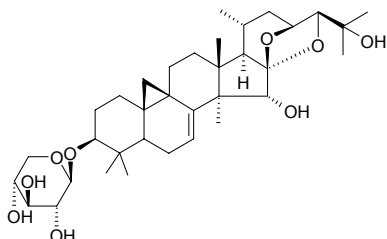


**5463 Didehydro-3'-hydroxyaglaistatin**

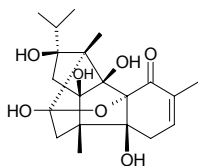
[259143-58-3] C<sub>31</sub>H<sub>28</sub>N<sub>2</sub>O<sub>7</sub> (540.58). **Pharm:** Insecticidal (neonate larvae of *Spodoptera littoralis*, LC<sub>50</sub> = 5.70mg/L, EC<sub>50</sub> = 0.31mg/L; control Azadirachtin, LC<sub>50</sub> = 0.9mg/L, EC<sub>50</sub> = 0.04mg/L). **Source:** *Aglaia duperreana*. **Ref:** 2376.

**5464 7,8-Didehydrocimigenol 3-O-β-D-xylopyranoside**

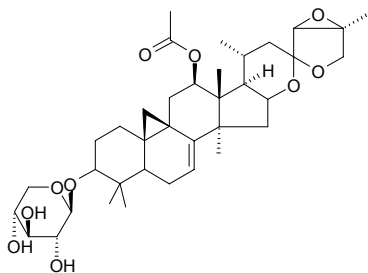
C<sub>35</sub>H<sub>54</sub>O<sub>9</sub> (618.82). **Source:** XING AN SHENG MA *Cimicifuga dahurica* (rhizome). **Ref:** 4140.

**5465 2,3-Didehydrocinnzeylanone**

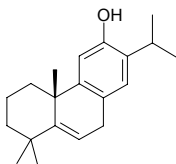
C<sub>20</sub>H<sub>28</sub>O<sub>7</sub> (380.44). **Source:** YIN DU E LI *Persea indica* (aerial parts). **Ref:** 5128.

**5466 7,8-Didehydro-27-deoxyactein**

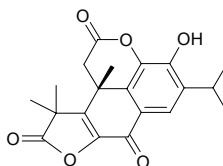
C<sub>37</sub>H<sub>54</sub>O<sub>10</sub> (658.84). White crystals, mp 260–262°C (CH<sub>3</sub>CN/H<sub>2</sub>O). **Source:** SHENG MA *Cimicifuga foetida*. **Ref:** 2427.

**5467 5,6-Didehydroferruginol**

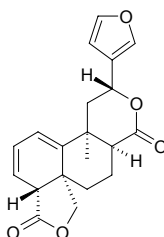
C<sub>20</sub>H<sub>28</sub>O (284.45). Amorphous solid, mp 145°C, [α]<sub>D</sub><sup>25</sup> = +35.3° (c = 1.0, CHCl<sub>3</sub>). **Source:** CHANG GENG CU FEI *Cephalotaxus harringtonia* var. *drupacea*. **Ref:** 5401.

**5468 5,6-Didehydropygmaecocin A**

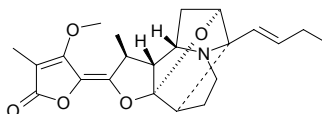
[122590-06-1] C<sub>20</sub>H<sub>20</sub>O<sub>6</sub> (356.38). Yellow crystals (MeOH), mp 211–213°C. **Source:** QIAN JIE CAO *Pygmaeopremna herbacea* [Syn. *Premna herbacea*]. **Ref:** 3119.

**5469 1,10-Didehydrosalviarin**

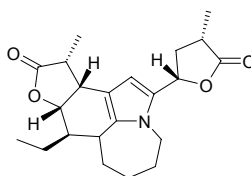
C<sub>20</sub>H<sub>20</sub>O<sub>5</sub> (340.38). Crystals (*n*-hexane–CHCl<sub>3</sub>), mp 186–188°C, [α]<sub>D</sub><sup>25</sup> = –200.2° (c = 1.0, CHCl<sub>3</sub>). **Source:** *Salvia wagneriana* (aerial parts). **Ref:** 4976.

**5470 Didehydrostemofoline**

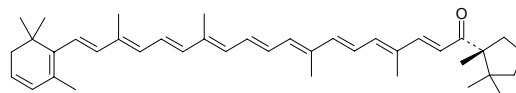
Asparagamine A C<sub>22</sub>H<sub>27</sub>NO<sub>5</sub> (385.46). **Pharm:** Insecticidal (neonate larvae of *Spodoptera littoralis*, LC<sub>50</sub> = 0.8mg/L, EC<sub>50</sub> = 0.5mg/L). **Source:** XIAO QIU BAI BU *Stemona collinsae*. **Ref:** 3409.

**5471 Didehydrotuberostemonine**

C<sub>22</sub>H<sub>29</sub>NO<sub>4</sub> (371.48). Colorless acicular crystals, mp 176–177°C. **Source:** BAI BU *Stemona tuberosa*. **Ref:** 673.

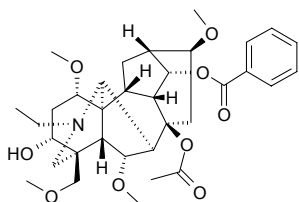
**5472 3,4-Didehydroxy-3'-deoxycapsanthin**

(5'*R*)-3,4-Didehydro-β,κ-caroten-6'-one C<sub>40</sub>H<sub>54</sub>O (550.88). **Source:** HONG HAI JIAO *Capsicum annuum* (fruit: yield = 0.000013%). **Ref:** 3007.

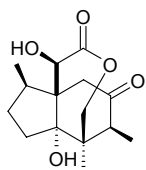


**5473 13,15-Dideoxyaconitine**

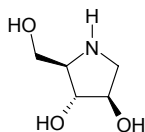
[77757-14-3]  $C_{34}H_{47}NO_9$  (613.75). Colorless rhomboid crystals, mp 167~169°C,  $[\alpha]_D^{25} = +16.4^\circ$  ( $c = 0.07$ , ethanol). Source: SONG PAN WU TOU *Aconitum sungpanense*, ZHUA KUI GUA YE WU TOU *Aconitum hemsleyanum* var. *leueanthus* (root: yield = 0.0022%dw)<sup>[4678]</sup>. Ref: 107, 4678.

**5474 3,6-Dideoxy-10-hydroxypseudoanisatin**

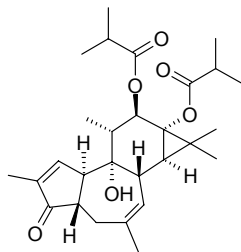
$C_{15}H_{22}O_5$  (282.34). Colorless amorphous. Source: *Illicium merrillianum* (pericarp). Ref: 5113.

**5475 1,4-Dideoxy-1,4-imino-arabinitol**

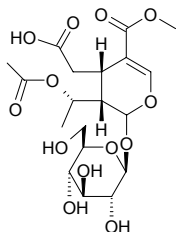
$C_5H_{11}NO_3$  (133.15). Source: SANG ZHI *Morus alba*. Ref: 2170.

**5476 4,20-Dideoxyphorbol 12,13-bis(isobutyrate)**

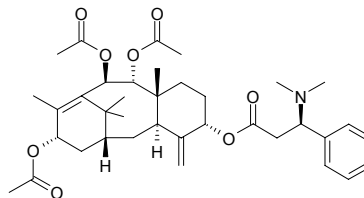
[250258-01-6]  $C_{28}H_{40}O_6$  (472.63). Oil,  $[\alpha]_D = +54^\circ$  ( $c = 0.74$ ,  $CHCl_3$ ). Source: DUN YE DA JI *Euphorbia obtusifolia* var. *obtusifolia*. Ref: 2365.

**5477 Diderroside**

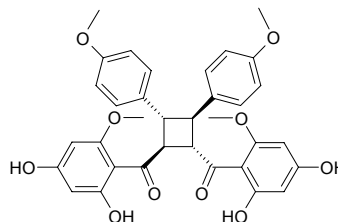
[86989-19-7]  $C_{19}H_{28}O_{13}$  (464.43). Pharm: Antitrypanosomal (trypomastigotes of *Trypanosoma cruzi*, *in vitro*,  $IC_{50} = 84.9\mu g/mL$ , control Gentian violet,  $IC_{50} = 7.5\mu g/mL$ ). Source: *Calycophyllum spruceanum*. Ref: 3439.

**5478 7,2'-Didesacetoxy austrospicatin**

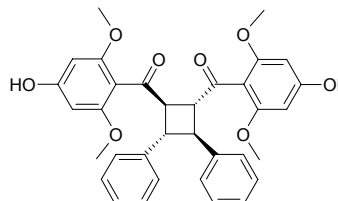
$C_{37}H_{51}NO_8$  (637.82). Source: XI MA LA YA HONG DOU SHAN *Taxus wallichiana*. Ref: 662.

**5479 (rel)-1β,2α-Di-(2,4-dihydroxy-6-methoxybenzoyl)-3β,4α-di-(4-methoxyphenyl)-cyclobutane**

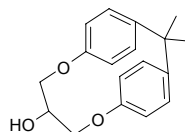
$C_{34}H_{32}O_{10}$  (600.63). Pale amorphous solid,  $[\alpha]_D^{23.5} = +17.2^\circ$  ( $c = 0.29$ ,  $CHCl_3$ ). Source: CHANG YE GE NA XIANG *Goniothalamus gardneri* (aerial parts). Ref: 5096.

**5480 rel-(1α,2β)-Di-(2,6-dimethoxy-4-hydroxy)-benzoyl-rel-(3α,4β)-di-phenylcyclobutane**

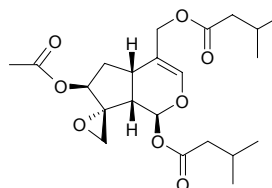
$C_{34}H_{32}O_8$  (568.53). White crystalline solid, mp 213°C,  $[\alpha]_D^{21} = +17.5^\circ$  ( $c = 0.5$ , MeOH). Source: BAI DIAN FENG CHE ZI *Combretum albopunctatum* (aerial parts). Ref: 3766.

**5481 1,3-Di-O-[2',2'-di-(p-phenylene) isopropylidene] glycerol**

$C_{18}H_{20}O_3$  (284.36). White powder. Source: XI NANG MA WEI ZAO *Sargassum parvivesiculosum*. Ref: 2591.

**5482 Didrovaltratum**

Dihydrovaltrate [18296-45-2]  $C_{22}H_{32}O_8$  (424.50). Pharm: Sedative. Source: ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*] (rhizome and root: yield = 0.000013%dw)<sup>[4672]</sup>, *Valeriana* sp. Ref: 658, 4672.

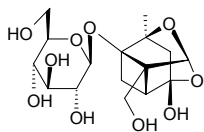




**5483 8-Diebenzoylpaeoniflorin**

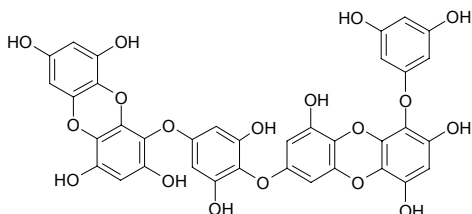
$C_{16}H_{24}O_{10}$  (376.36). Amorphous white powder,  $[\alpha]_D = -9.6^\circ$  ( $c = 1.0$ , MeOH).

Source: CHI SHAO *Paeonia lactiflora* wild. Ref: 722.

**5484 Dieckol**

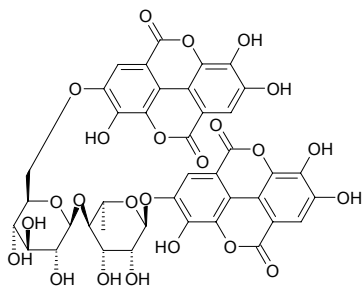
[88095-77-6]  $C_{36}H_{22}O_{18}$  (742.57). Amorphous powder, mp > 300°C. Pharm:

Antifibrinolysis ( $\alpha_2$ -macroglobulin,  $IC_{50} = 5.0\mu\text{g/mL}$ ,  $\alpha_2$ -fibrinolysin,  $IC_{50} = 0.8\mu\text{g/mL}$ )<sup>[955]</sup>; antioxidant (DPPH scavenger,  $IC_{50} = 6.2\mu\text{mol/L}$ , control Ascorbic acid,  $IC_{50} = 10.3\mu\text{mol/L}$ )<sup>[4376]</sup>. Source: HEI KUN BU *Ecklonia kurome*, Brown alga *Ecklonia stolonifera*. Ref: 955, 4376.

**5485 Diellagic acid rhamnoside (1→4) glucopyranoside**

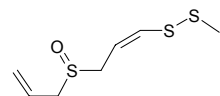
$C_{40}H_{30}O_{24}$  (894.67). Yellowish amorphous powder. Source: SHI LIU XIN

CAI *Punica granatum*. Ref: 1942.

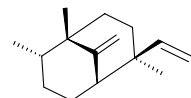
**5486 Z-4,9-Diene-2,3,7-trithiadeca-7-oxide**

$C_7H_{12}OS_3$  (208.37). Colorless oil liquid. Source: DA SUAN *Allium sativum*.

Ref: 2118.

**5487 (-)-3,4-Di-epi-3,7-trifara-9,14-diene**

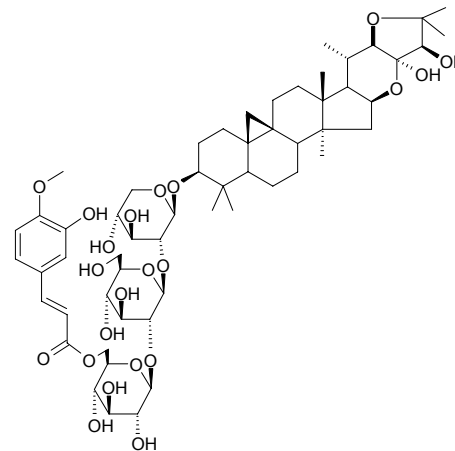
$C_{15}H_{24}$  (204.36). Source: YE TAI *Trocholejeunea sandvicensis*. Ref: 735.

**5488 20S,22R,23S,24R-16β,23;22,25-Diepoxy-cycloartane-3β,23,24-triol 3-O-(6-O-trans-isoferuloyl-β-D-glucopyranosyl)-(1→2)-β-D-glucopyranosyl-(1→2)-β-D-xylopyranoside**

$C_{57}H_{84}O_{22}$  (1121.29). White powder,  $[\alpha]_D^{25} = -35.4^\circ$  ( $c = 0.3$ , MeOH). Pharm:

Immunosuppressant (mouse allogeneic mixed lymphocyte reaction, suppresses the proliferation of lymphocytes,  $IC_{50} = 99.6\mu\text{mol/L}$ ). Source:

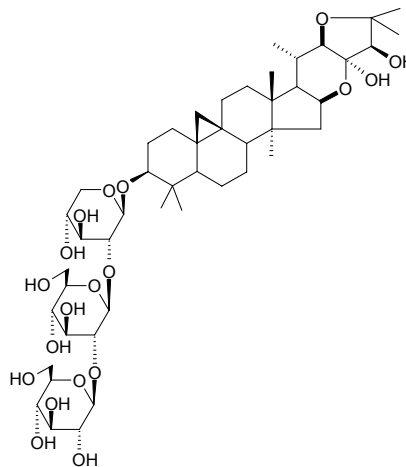
*Cimicifuga* sp. (rhizome). Ref: 4330.

**5489 20S,22R,23S,24R-16β,23;22,25-Diepoxy-cycloartane-3β,23,24-triol 3-O-β-D-glucopyranosyl-(1→2)-β-D-glucopyranosyl-(1→2)-β-D-xylopyranoside**

$C_{47}H_{76}O_{19}$  (945.12). White powder,  $[\alpha]_D^{25} = -8.5^\circ$  ( $c = 0.3$ , MeOH). Pharm:

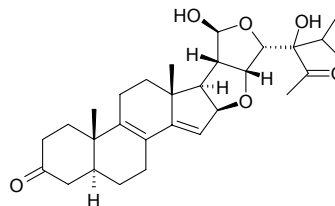
Immunosuppressant (mouse allogeneic mixed lymphocyte reaction, suppresses the proliferation of lymphocytes,  $IC_{50} = 55.6\mu\text{mol/L}$ ). Source:

*Cimicifuga* sp. (rhizome). Ref: 4330.

**5490 16β,22R;21,23S-Diepoxy-21S,24-dihydroxy-5α-stigmasta-8,14-diene-3,28-dione**

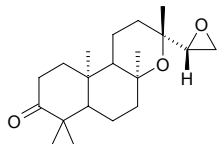
$C_{29}H_{40}O_6$  (484.64). Colorless oil,  $[\alpha]_D = +26.6^\circ$  ( $c = 0.3$ ,  $CH_2Cl_2$ ). Source: JI

NEI YA BAN JIU JU *Vernonia guineensis*. Ref: 3412.

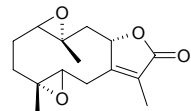


**5491 (13R,14S)-ent-8 $\alpha$ ,13;14,15-Diepoxy-13-epi-labdan-3-one**

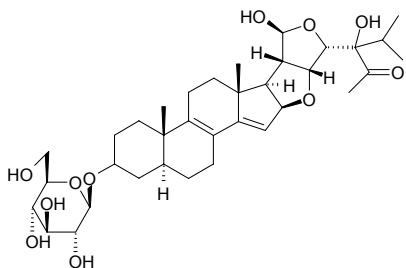
C<sub>20</sub>H<sub>32</sub>O<sub>3</sub> (320.48). Colorless needles (MeOH), mp 145–146°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –26.0° (*c* = 0.5, CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha* (root). Ref: 5114.

**5492 1 $\beta$ ,10 $\alpha$ ,4 $\alpha$ ,5 $\beta$ -Diepoxyglechoman-8 $\alpha$ ,12-olide**

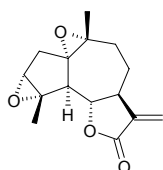
C<sub>15</sub>H<sub>20</sub>O<sub>4</sub> (264.32). Pharm: Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 94 $\mu$ g/mL)<sup>[5162]</sup>. Source: XIAO MEI WEI QIN *Smyrniun olusatrum* (fruit). Ref: 5162.

**5493 16 $\beta$ ,22R;21,23S-Diepoxy-3 $\beta$ -O- $\beta$ -D-glucopyranosyloxy-21S,24-dihydroxy-5 $\alpha$ -stigmasta-8,14-dien-28-one**

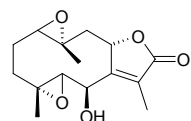
C<sub>35</sub>H<sub>52</sub>O<sub>11</sub> (648.80). Yellowish powder (acetone), mp 187–188°C, [ $\alpha$ ]<sub>D</sub> = –80° (*c* = 0.7, MeOH). Source: JI NEI YA BAN JIU JU *Vernonia guineensis*. Ref: 3412.

**5494 5 $\alpha$ H-1 $\alpha$ ,10 $\alpha$ :3 $\alpha$ ,4 $\alpha$ -Diepoxyguaia-11(13)-en-6 $\alpha$ ,12-olide**

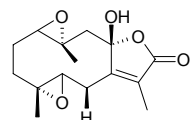
C<sub>15</sub>H<sub>18</sub>O<sub>4</sub> (262.31). Pharm: Cytotoxic (KB ATCC CCL17, IC<sub>50</sub> = 4.3 $\mu$ g/mL). Source: *Warionia saharae*. Ref: 5399.

**5495 1 $\beta$ ,10 $\alpha$ ,4 $\alpha$ ,5 $\beta$ -Diepoxy-6 $\beta$ -hydroxyglechoman-8 $\alpha$ ,12-olide**

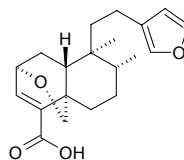
C<sub>15</sub>H<sub>20</sub>O<sub>5</sub> (280.32). White needle crystals (MeOH), mp 165–168°C. Source: XIAO MEI WEI QIN *Smyrniun olusatrum* (fruit). Ref: 5162.

**5496 1 $\beta$ ,10 $\alpha$ ,4 $\alpha$ ,5 $\beta$ -Diepoxy-8 $\alpha$ -hydroxyglechoman-8 $\alpha$ ,12-olide**

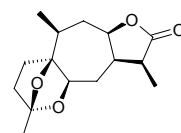
C<sub>15</sub>H<sub>20</sub>O<sub>5</sub> (280.32). Pharm: Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 88 $\mu$ g/mL). Source: XIAO MEI WEI QIN *Smyrniun olusatrum* (fruit). Ref: 5162.

**5497 2,19;15,16-Diepoxy-neo-clerodan-3,13(16),14-trien-18-oic acid**

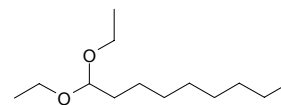
C<sub>20</sub>H<sub>26</sub>O<sub>4</sub> (330.43). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +6.1° (*c* = 0.26, CHCl<sub>3</sub>). Source: SHAN XING KUO BAO JU *Baccharis flabellata*. Ref: 1921.

**5498 1 $\beta$ ,4 $\beta$ ,4 $\alpha$ ,5 $\beta$ -Diepoxy-10 $\alpha$ ,11 $\alpha$ H-xantha-12,8 $\beta$ -olide**

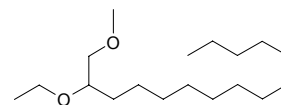
C<sub>15</sub>H<sub>22</sub>O<sub>4</sub> (266.34). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –16.0° (*c* = 0.22, CHCl<sub>3</sub>). Source: CHANG YE TIAN MING JING *Carpesium longifolium* (aerial parts: yield = 0.0003%dw). Ref: 4736.

**5499 1,1-Diethoxy-*n*-nonane**

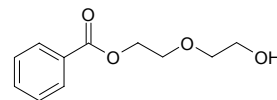
C<sub>13</sub>H<sub>28</sub>O<sub>2</sub> (216.37). Source: CU LIU GUO *Hippophae rhamnoides*. Ref: 2.

**5500 1,1-Diethoxy-*n*-tetradecane**

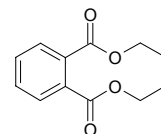
C<sub>18</sub>H<sub>38</sub>O<sub>2</sub> (286.50). Source: CU LIU GUO *Hippophae rhamnoides*. Ref: 2.

**5501 Diethylene glycol monobenzoate**

C<sub>11</sub>H<sub>14</sub>O<sub>4</sub> (210.23). Colorless oil. Source: TAN XIANG *Santalum album* (heartwood). Ref: 4468.

**5502 Diethylphthalate**

[84-66-2] C<sub>12</sub>H<sub>14</sub>O<sub>4</sub> (222.24). bp 295°C. Pharm: Anthelmintic; detumescent; LD<sub>50</sub> (rbt, orl) = 1.0g/kg. Source: SHUI QIN *Oenanthe javanica*. Ref: 6, 658.

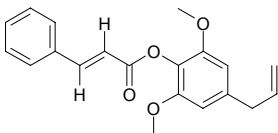


**5503 Diethyl sulfide**

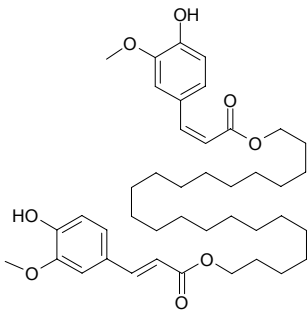
3-Thiapentane; Ethyl sulfide [352-93-2] C<sub>4</sub>H<sub>10</sub>S (90.19). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

**5504 Difengpin**

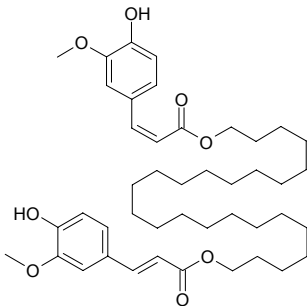
4-Allyl-2,6-dimethoxyphenyl cinnamate C<sub>20</sub>H<sub>20</sub>O<sub>4</sub> (324.38). Colorless granular crystals, mp 153~155°C (petroleum spirit-acetic acid). Source: DI FENG PI *Illicium difengpi*. Ref: 354.

**5505 (1E,22Z)-1,22-Diferuloyloxydocosane**

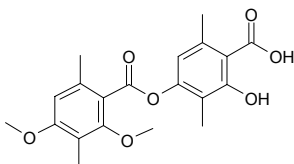
C<sub>42</sub>H<sub>62</sub>O<sub>8</sub> (694.96). Inseparable mixture with (1E,24Z)-1,24-Diferuloyloxy-tetracosane, yellow oil. Source: SHAN ZHU ZI *Garcinia multiflora* (stem). Ref: 4708.

**5506 (1E,24Z)-1,24-Diferuloyloxytetracosane**

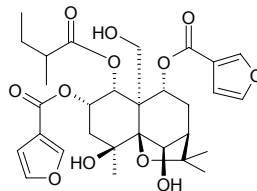
C<sub>44</sub>H<sub>66</sub>O<sub>8</sub> (723.01). Inseparable mixture with (1E,22Z)-1,22-Diferuloyloxydocosane, yellow oil. Source: SHAN ZHU ZI *Garcinia multiflora* (stem). Ref: 4708.

**5507 Diffractaic acid**

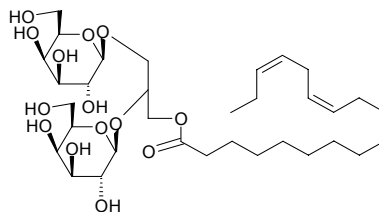
[436-32-8] C<sub>20</sub>H<sub>22</sub>O<sub>7</sub> (374.39). mp 189~190°C. Pharm: Antineoplastic (inhibits a tumor which induces Epstein-Barr virus activation). Source: SONG LUO *Usnea longissima*, HUAN JIE SONG LUO *Usnea diffracta*. Ref: 6, 658, 660.

**5508 2α,9β-Di-(β-furancarboxyloxy)-4β,6β,15-trihydroxy-1α-(2)-methylbutanoyloxy-dihydro-β-agarofuran**

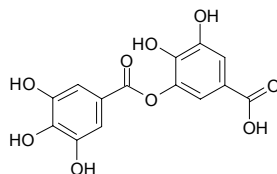
C<sub>30</sub>H<sub>38</sub>O<sub>12</sub> (590.63). Colorless oil, [α]<sub>D</sub><sup>25</sup> = +30.0° (c = 0.13, CHCl<sub>3</sub>) Source: OU ZHOU WEI MAO *Euonymus europaeus* (seed). Ref: 4162.

**5509 α,β-Digalactosyl-α'-linolenic-glyceride**

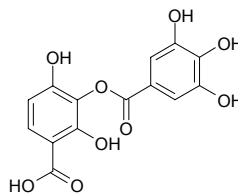
C<sub>33</sub>H<sub>56</sub>O<sub>14</sub> (676.81). Red oil liquid. Source: SU MI *Setaria italica*. Ref: 2112.

**5510 m-Digallic acid**

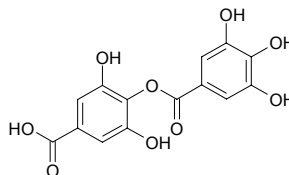
[536-08-3] C<sub>14</sub>H<sub>10</sub>O<sub>9</sub> (322.23). mp 268~270°C (dec). Source: A LA BO JIAO JIN HE HUAN *Acacia nilotica*, MANG GUO *Mangifera indica*. Ref: 6, 5375.

**5511 m-Digalloyl acid**

C<sub>14</sub>H<sub>10</sub>O<sub>9</sub> (322.23). Colorless colloid. Source: LUAN SHU *Koelreuteria paniculata*. Ref: 677.

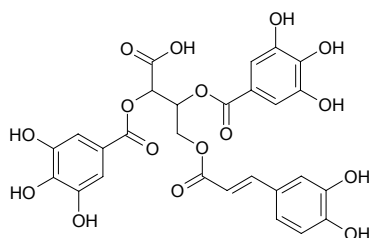
**5512 p-Digalloyl acid**

C<sub>14</sub>H<sub>10</sub>O<sub>9</sub> (322.23). Source: LUAN SHU *Koelreuteria paniculata*. Ref: 677.

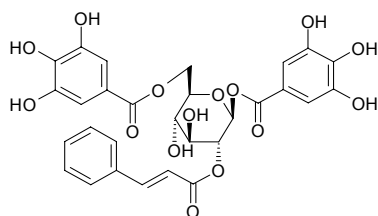


**5513 (-)-2,3-Digalloyl-4-(E)-caffeoyl-L-threonic acid**

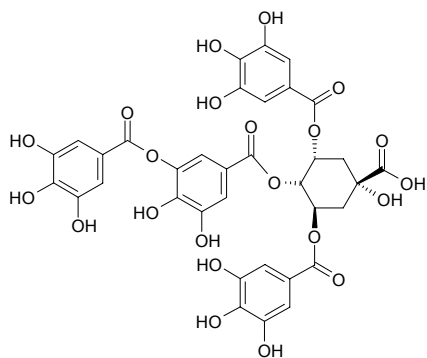
$C_{27}H_{22}O_{16}$  (602.47). Dark brown amorphous powder, mp 215–217°C,  $[\alpha]_D^{20} = -38^\circ$  ( $c = 0.05$ , MeOH). Source: DENG TAI SHU *Cornus controversa* [Syn. *Bothrocaryum controversum*] (leaf). Ref: 3918.

**5514 1,6-Digalloyl-2-cinnamoyl-glucose**

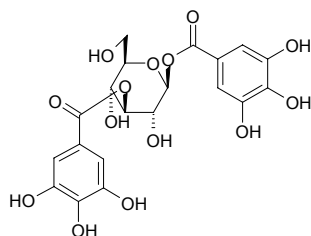
$C_{29}H_{26}O_{15}$  (614.52). Source: DA HUANG *Rheum officinale*, TANG GU TE DA HUANG *Rheum tanguticum*, ZHANG YE DA HUANG *Rheum palmatum*. Ref: 2, 660.

**5515 3,5-Di-O-galloyl-4-O-digalloylquinic acid**

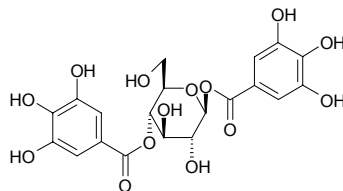
$C_{35}H_{28}O_{22}$  (800.60). Pharm: Anti-AIDS; reverse transcriptase inhibitor (hmn immunodeficiency virus). Source: YAN FU ZI *Rhus chinensis* [Syn. *Rhus semialata*]. Ref: 658.

**5516 1,3-Di-O-galloyl-β-D-glucopyranose**

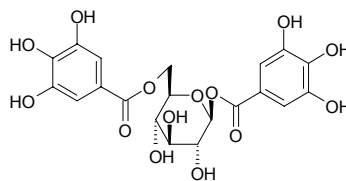
$C_{20}H_{20}O_{14}$  (484.37). Yellow amorphous powder,  $[\alpha]_D^{15} = +17.3^\circ$  ( $c = 0.7$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0353%). Ref: 4101.

**5517 1,4-Di-O-galloylglucose**

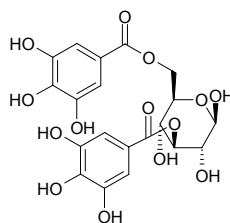
$C_{20}H_{20}O_{14}$  (484.37). Source: AN MO LE *Phyllanthus emblica* (branch and leaf). Ref: 3094.

**5518 1,6-Di-O-galloyl-β-glucose**

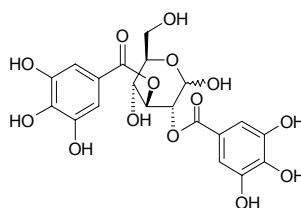
$C_{20}H_{20}O_{14}$  (484.37).  $[\alpha]_D^{25} = -22^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antifungal (*Candida albicans* ATCC2091, MIC > 200μg/mL, control Amphotericin B, MIC = 1μg/mL; *Candida albicans* 32, MIC = 25μg/mL, Amphotericin B, MIC = 4μg/mL; *Candida albicans* 19, MIC = 12.5μg/mL, Amphotericin B, MIC = 2μg/mL)<sup>[5021]</sup>; cytotoxic inactive (MIC > 200μg/mL)<sup>[5021]</sup>. Source: AN MO LE *Phyllanthus emblica* (fruit juice)<sup>[3094]</sup>, DA HUANG *Rheum officinale*, ZHANG YE DA HUANG *Rheum palmatum*, TANG GU TE DA HUANG *Rheum tanguticum*, *Baseonema acuminatum* (leaf). Ref: 2, 660, 3094, 5021.

**5519 3,6-Di-O-galloylglucose**

$C_{20}H_{20}O_{14}$  (484.37). mp 185°C (dec). Source: AN MO LE *Phyllanthus emblica* (leaf, branch)<sup>[3094]</sup>, CAO YUAN LAO GUAN CAO *Geranium pratense*, QUAN SHEN *Polygonum bistorta*, YOU GAN YE *Phyllanthus emblica*, YOU GAN MU PI *Phyllanthus emblica*. Ref: 6, 3094.

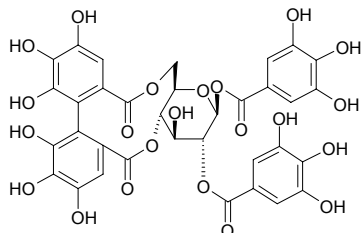
**5520 2,3-Di-O-galloyl-D-glucose**

Nicotin  $C_{20}H_{20}O_{14}$  (484.37). Source: SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*]. Ref: 2.



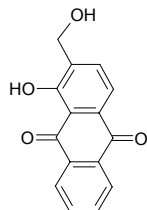
**5521 1,2-Di-O-galloyl-4,6-O-(S)-hexahydroxydiphenoyl-β-D-glucopyranose**

$C_{34}H_{26}O_{22}$  (786.57). **Pharm:** Antioxidant (SOD-like activity,  $EC_{50}$  = 76.3 μmol/L, control Gallic acid,  $EC_{50}$  = 31.7 μmol/L, *L*-Ascorbic acid,  $EC_{50}$  = 34.6 μmol/L); antioxidant (DPPH free radical scavenger,  $EC_{50}$  = 1.27 μmol/L, control Gallic acid,  $EC_{50}$  = 5.88 μmol/L, *L*-Ascorbic acid,  $EC_{50}$  = 6.25 μmol/L). **Source:** HU TAO REN *Juglans regia*. **Ref:** 3408.



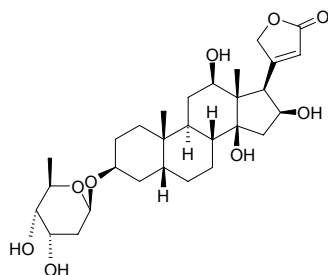
**5522 Digiferrugineol**

1-Hydroxy-2-hydroxymethyl anthraquinone  $C_{15}H_{10}O_4$  (254.24). **Pharm:** Cytotoxic (KB,  $ED_{50}$  > 25 μg/mL, control Doxorubicin,  $ED_{50}$  = 0.12 μg/mL; Hep3B,  $ED_{50}$  = 3.85 μg/mL, Doxorubicin,  $ED_{50}$  = 0.14 μg/mL; Colon205,  $ED_{50}$  > 25 μg/mL, Doxorubicin,  $ED_{50}$  = 0.10 μg/mL; HeLa,  $ED_{50}$  = 24.5 μg/mL, Doxorubicin,  $ED_{50}$  = 0.11 μg/mL)<sup>[4369]</sup>; cytotoxic (hmn nasopharyngeal epidermoid carcinoma cells, *in vitro*); antibacterial (*Bacillus subtilis*, *Escherichia coli*). **Source:** BAI YAN TENG *Morinda parvifolia*, GUANG JING QIAN CAO *Rubia wallichiana* (stem), HU CI *Damnacanthus indicus*, JIN JI LE *Cinchona ledgeriana*, QIAN CAO GEN *Rubia cordifolia*, XIU MAO DI HUANG *Digitalis ferruginea*, *Cinchona* sp. **Ref:** 658, 660, 4369.



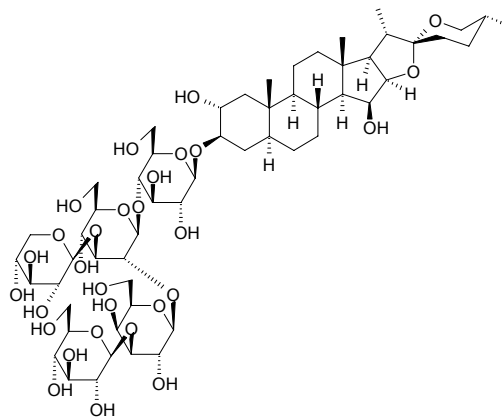
**5523 Diginatin**

[52589-12-5]  $C_{29}H_{44}O_9$  (536.67). **Pharm:** Cardiotoxic; toxin (vertebrate). **Source:** MAO HUA MAO DI HUANG *Digitalis lanata*. **Ref:** 1521.



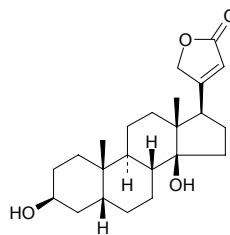
**5524 Digitonin**

[11024-24-1]  $C_{56}H_{92}O_{29}$  (1229.34). **Pharm:** Antibacterial; antifungal. **Source:** MAO DI HUANG *Digitalis purpurea*. **Ref:** 658.



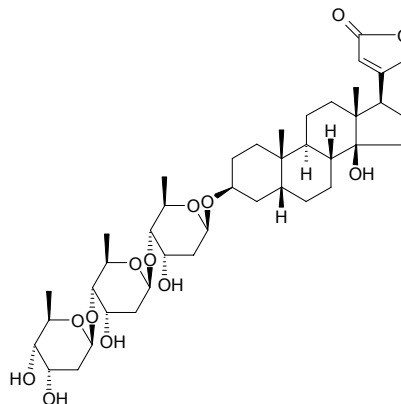
**5525 Digitoxigenin**

(17β)-Card-20(22)-enolide [143-62-4]  $C_{23}H_{34}O_4$  (374.53). Mp 253°C. **Source:** FU SHOU CAO *Adonis amurensis*. **Ref:** 6.



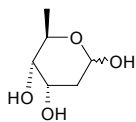
**5526 Digitoxin**

[71-63-6]  $C_{41}H_{64}O_{13}$  (764.96). Long and thin rectangular lamellar crystals (ethanol), containing 0.5 or 1 H<sub>2</sub>O. pure crystals, mp 256–257°C,  $[\alpha]_D^{20}$  = +48° (*c* = 1.2, dioxane). **Pharm:** Cardiotoxic; LD<sub>50</sub> (gpg, orl) = 600mg/kg, (cat, orl) = 0.18mg/kg, (cat, iv) = 0.4mg/kg. **Source:** MAO DI HUANG *Digitalis purpurea* (dried leaf: content = 0.0226%<sup>[5508]</sup>), MAO HUA MAO DI HUANG *Digitalis lanata*. **Ref:** 658, 5508.

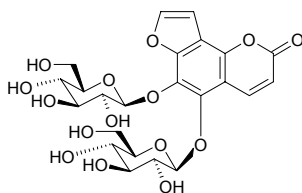


**5527 Digitoxose**

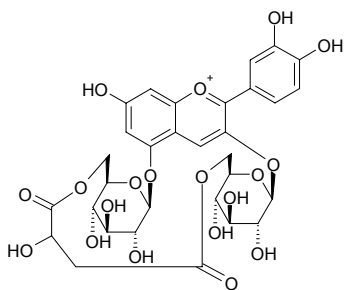
$C_6H_{12}O_4$  (148.16). mp 110–112°C. Source: LUO MO ZI *Metaplexis japonica*. Ref: 6.

**5528 5,6-O-β-D-Diglucoopyranosylangelicin**

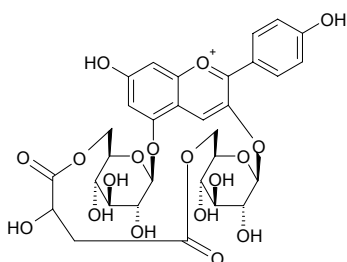
$C_{23}H_{26}O_{15}$  (542.45). White amorphous powder,  $[\alpha]_D^{20} = -30.0^\circ$  ( $c = 0.01$ , pyridine). Pharm: Antiproliferation inactive (hmn mononuclear cells involving T lymphocytes, B lymphocytes, and macrophages isolated from peripheral blood, 100μmol/L; control Cyclosporine,  $IC_{50} = 12\text{nmol/L}$ ). Source: LAN YU LUO YE RONG *Ficus ruficaulis* var. *antaoensis* (leaf; yield = 0.00023%fw). Ref: 4794.

**5529 3,5-Di-O-(β-glucopyranosyl)cyanidin 6''-O-4,6'''-O-1-cyclic malate**

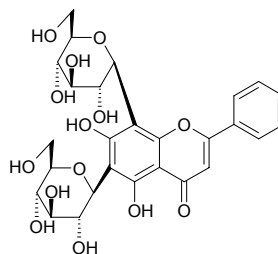
$C_{31}H_{33}O_{19}^+$  (709.60). Source: SHE XIANG SHI ZHU *Dianthus caryophyllus* (petal). Ref: 5118.

**5530 3,5-Di-O-(β-glucopyranosyl)pelargonidin 6''-O-4,6'''-O-1-cyclic malate**

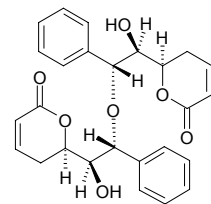
$C_{31}H_{33}O_{18}^+$  (693.60). Source: SHE XIANG SHI ZHU *Dianthus caryophyllus* (petal). Ref: 5118.

**5531 6,8-Di-C-β-glucosylchrysin**

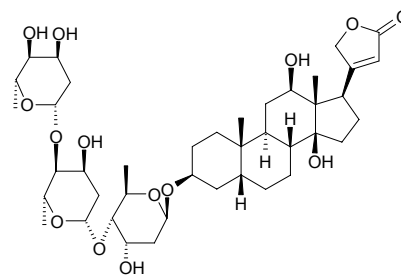
6,8-Di-β-glucopyranosyl-5,7-dihydroxy-2-phenyl-4H-1-benzopyran-4-one  $C_{27}H_{30}O_{14}$  (578.53). Amorphous powder. Pharm: Anti-inflammatory inactive (*in vivo*, carrageenan-induced rat paw edema). Source: *Lychophora ericoides* (fresh leaf). Ref: 5040.

**5532 Digonidiol**

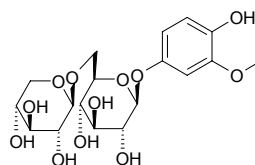
$C_{26}H_{26}O_7$  (450.49). Colorless prisms, mp 166–168°C,  $[\alpha]_D^{23} = -35.5^\circ$  ( $c = 0.11$ , MeOH). Pharm: Cytotoxic (HepG2,  $IC_{50} = 6.83\mu\text{g/mL}$ , control Doxorubicin,  $IC_{50} = 0.38\mu\text{g/mL}$ ; Hep3B,  $IC_{50} = 20.15\mu\text{g/mL}$ , Doxorubicin,  $IC_{50} = 0.36\mu\text{g/mL}$ ; MDA-MB-231,  $IC_{50} = 6.80\mu\text{g/mL}$ , Doxorubicin,  $IC_{50} = 1.20\mu\text{g/mL}$ ; NCF-7, inactive). Source: TAI WAN GE NA XIANG *Goniiothalamus amuyon* (stem and leaf). Ref: 5056.

**5533 Digoxin**

[20830-75-5]  $C_{41}H_{64}O_{14}$  (780.96). Scattering tetrahedral or pentahedral trioblique lamellar crystals (diluting ethanol or diluting pyridine), mp 260–265°C (some dec). Pharm: Cardiotonic. Source: MAO HUA MAO DI HUANG *Digitalis lanata*. Ref: 658.

**5534 Digupigan A**

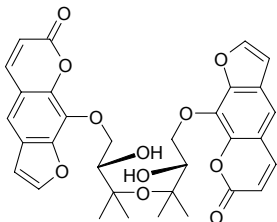
4-Hydroxy-3-methoxyphenyl-β-D-xylopyranosyl(1→6)-β-D-glucopyranoside  $C_{18}H_{26}O_{12}$  (434.40). Amorphous powder,  $[\alpha]_D^{22} = -67^\circ$  ( $c = 0.3$ , MeOH). Source: GOU QI GEN PI *Lycium chinense*, GUAN CANG ZHU *Atractylodes japonica* (fresh rhizome). Ref: 2451, 4310.



**5535 (12*R*,12''*R*)-Diheraclenol**

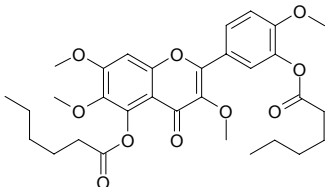
$C_{32}H_{30}O_{11}$  (590.59). Pale-yellow amorphous solid,  $[\alpha]_D^{19.1} = +28.31^\circ$  ( $c = 0.36$ ,  $CHCl_3$ ). **Pharm:** Platelet aggregation inhibitor inactive (rbt platelets, 4.5nmol/L PAF-induced, 350 $\mu$ mol/L AA-induced, 5 $\mu$ mol/L ADP-induced, 240 $\mu$ mol/L).

**Source:** BAI YUN HUA *Heracleum rapula* (fresh root). **Ref:** 4997.

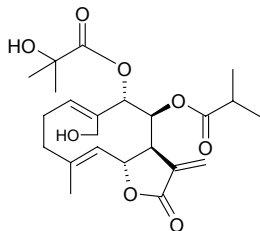
**5536 5,3'-Dihexanoyloxy-3,6,7,4'-tetramethoxyflavone**

$C_{31}H_{38}O_{10}$  (570.64). mp 100–101°C. **Pharm:** Cytotoxic (*in vitro*, Col2,  $ED_{50} > 20\mu$ g/mL; hTERT-RPE1,  $ED_{50} = 0.4\mu$ g/mL; HUVEC,  $ED_{50} = 11.1\mu$ g/mL; KB,  $ED_{50} = 0.5\mu$ g/mL; HUVEC,  $ED_{50} = 0.5\mu$ g/mL; Lu1,  $ED_{50} = 0.7\mu$ g/mL).

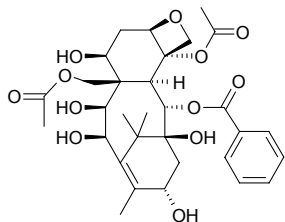
**Source:** HUANG JING YE *Vitex negundo*. **Ref:** 4699.

**5537 Dihydroacanthospermal A**

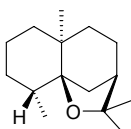
$C_{23}H_{32}O_8$  (436.51). Amorphous gum. **Pharm:** Antineoplastic (mus,  $P_{388}$ , *in vivo*); cytotoxic (KB *in vitro*,  $ED_{50} = 2.6\mu$ g/mL). **Source:** GUANG CI BAO JU *Acanthospermum glabratum*. **Ref:** 661.

**5538 9( $\beta$ H)-9-Dihydro-19-acetoxy-10-deacetylbaccatin III**

$C_{31}H_{40}O_{12}$  (604.66). **Source:** JIANG GUO ZI SHAN *Taxus baccata*. **Ref:** 662.

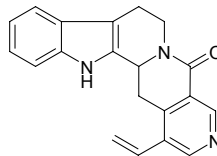
**5539 Dihydroagarofuran**

[5956-09-2]  $C_{15}H_{26}O$  (222.37). Bp 135°C/8mmHg. **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 6, 13.

**5540 3,14-Dihydroangustine**

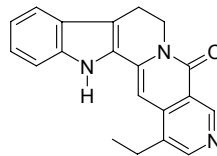
$C_{20}H_{17}N_3O$  (315.38). **Pharm:** Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*).

**Source:** KUAN YE WU TAN *Nauclea latifolia*. **Ref:** 2178.

**5541 18,19-Dihydroangustine**

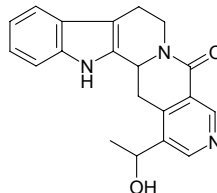
$C_{20}H_{17}N_3O$  (315.38). **Pharm:** Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*).

**Source:** KUAN YE WU TAN *Nauclea latifolia*. **Ref:** 2178.

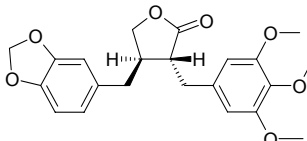
**5542 3,14-Dihydroangustoline**

$C_{20}H_{19}N_3O_2$  (333.39). **Pharm:** Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*).

**Source:** KUAN YE WU TAN *Nauclea latifolia*. **Ref:** 2178.

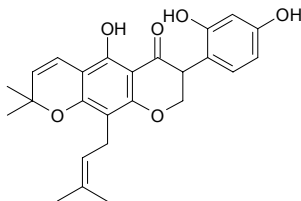
**5543 Dihydroanhydropodorhizol**

Dehydroypodorhizol; (-)-Yatein  $C_{22}H_{24}O_7$  (400.43).  $[\alpha]_D^{20} = -26.8^\circ$  ( $c = 1$ ,  $CHCl_3$ ). **Pharm:** Antineoplastic; cytotoxic (inhibition of TPA-induced ornithine decarboxylase activity with cultured mouse epidermal 308 cells)<sup>[5038]</sup>; CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4,  $IC_{50} = 1\mu$ mol/L; CYP2D6,  $IC_{50} = 95.7\mu$ mol/L; control Ketoconazole, CYP3A4,  $IC_{50} = 0.72\mu$ mol/L; control Quinidine, CYP2D6,  $IC_{50} = 0.082\mu$ mol/L)<sup>[4797]</sup>. **Source:** BEI MEI YA BAI *Thuja occidentalis*, BI CHENG QIE *Piper cubeba* (fruit: yield = 0.00017%dw), E SHEN *Anthriscus sylvestris*, HONG CHAI HU *Bupleurum scorzonrifolium* (root), LIAN YE TONG *Hernandia Sonora* [Syn. *Hernandia ovigera*] (seed), *Juniperus* sp. **Ref:** 658, 3498, 4797, 5030, 5038, 5499.

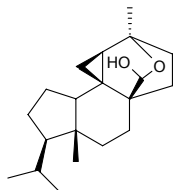


**5544 2,3-Dihydroauriculatin**

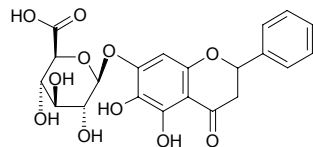
$C_{25}H_{26}O_6$  (422.48). Source: SAI NEI JIA ER CI TONG *Erythrina senegalensis*, *Erythrina vogelii*. Ref: 1521, 4421.

**5545 Dihydroazorellolide**

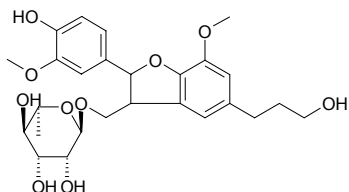
$C_{20}H_{32}O_2$  (304.48). Colorless needles, mp 121~122°C,  $[\alpha]_D^{19.8} = +27.84^\circ$  ( $c = 0.58$ ,  $CHCl_3$ ). Source: YIN HUA YAO XIAO YING QIN *Azorella cryptantha* (aerial parts). Ref: 3825.

**5546 Dihydrobaicalin**

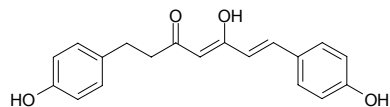
$C_{21}H_{20}O_{11}$  (448.39). Source: HUANG QIN *Scutellaria baicalensis*. Ref: 2.

**5547 2,3-Dihydrobenzofuran-2-(4'-hydroxy-3'-methoxyphenyl)-3- $\alpha$ -L-rhamnopyranosyloxymethyl-7-methoxy-5-propanol**

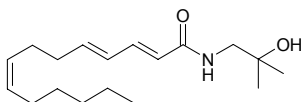
$C_{26}H_{34}O_{10}$  (506.55). Brownish amorphous powder,  $[\alpha]_D^{25} = -10^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antifungal inactive (*Candida albicans*, MIC > 200  $\mu$ g/mL; control Amphotericin B, MIC = 1~4  $\mu$ g/mL); antibacterial inactive. Source: *Baseonema acuminatum* (leaf). Ref: 5021.

**5548 1,2-Dihydrobis(de-O-methyl)-curcumin**

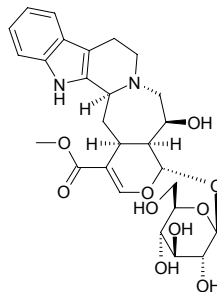
$C_{19}H_{18}O_4$  (310.35). Pharm: Cytotoxic (Colon26-L5,  $ED_{50} = 62.6 \mu$ mol/L; HT1080,  $ED_{50} > 100 \mu$ mol/L). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed; yield = 0.00070%). Ref: 3042.

**5549 Dihydrobungeanol**

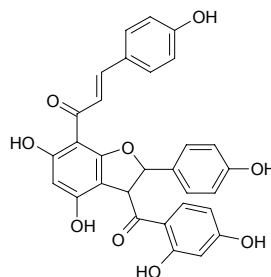
$C_{18}H_{31}NO_2$  (293.45). Pharm: Anti-PAF. Source: *Zanthoxylum* sp. Ref: 2176.

**5550 3 $\alpha$ -Dihydrocadambine**

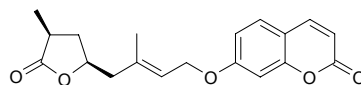
3 $\alpha$ -19-(S)-Dihydrocadambine [54483-84-0]  $C_{27}H_{34}N_2O_{10}$  (546.58). White amorphous powder, mp 144~145°C (dec),  $[\alpha]_D = -91^\circ$  ( $c = 0.097$ , methanol). Pharm: Antihypertensive (strong and enduring, rat, iv 0.1mg/kg, arterial blood pressure is lowered by 20mmHg); antihypertensive (anesthetized and conscious spontaneously hypertensive rats)<sup>[5341]</sup>; antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Salmonella* sp., *Bacillus proteus*, *Aspergillus niger*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial. Source: GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*], HUA GOU TENG *Uncaria sinensis*. Ref: 2, 902, 961, 2178, 5341.

**5551 Dihydrocalodenin B**

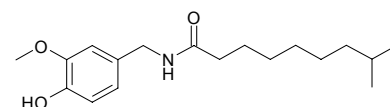
$C_{30}H_{22}O_9$  (526.50). Pharm: Antibacterial (MDR *Staphylococcus aureus*: RN4220 strain, MIC = 8  $\mu$ g/mL = 15  $\mu$ mol/L, control Erythromycin, MIC = 128  $\mu$ g/mL; XU212 strain, MIC = 8  $\mu$ g/mL = 15  $\mu$ mol/L, control Tetracycline, MIC = 128  $\mu$ g/mL; SA-1199-B strain, MIC = 8  $\mu$ g/mL = 15  $\mu$ mol/L, control Norfloxacin, MIC = 32  $\mu$ g/mL); cytotoxic (MCF7 breast cancer cells, MTT method,  $IC_{50} = (35 \pm 7) \mu$ mol/L, control Doxorubicin,  $IC_{50} = (0.1 \pm 0.001) \mu$ mol/L). Source: CHANG E JIN LIAN MU PI *Ochna macrocalyx*, SANG DAO BU SHI MU *Brackenridgea zanguebarica*. Ref: 5372.

**5552 3'',4''-Dihydrocapnolactone**

$C_{19}H_{20}O_5$  (328.37). White needles, mp 59~62°C. Source: JI XIAO XIAO YUN XIANG MU *Micromelum minutum* (leaf). Ref: 3467.

**5553 Dihydrocapsaicin**

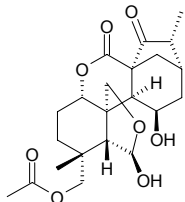
$C_{18}H_{29}NO_3$  (307.44). Source: LA JIAO *Capsicum frutescens* (fruit; mean content of 3 batch samples = 29.9%<sup>[5508]</sup>) Ref: 6, 15, 1521, 5508.



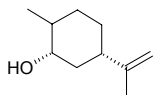


**5554 Dihydrocarpalasionin**

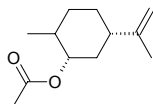
$C_{22}H_{30}O_8$  (422.48). mp 258~265°C. Source: ZHOU YE XIANG CHA CAI *Isodon rugosus* [Syn. *Rabdosia rugosa*]. Ref: 4067.

**5555 Dihydrocarveol**

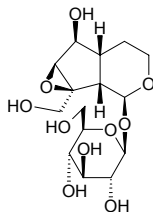
$C_{10}H_{18}O$  (154.25). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*]. Ref: 2.

**5556 Dihydrocarveol acetate**

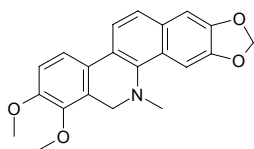
$C_{12}H_{20}O_2$  (196.29). Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 11.

**5557 Dihydrocatalpol**

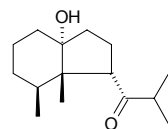
$C_{15}H_{24}O_{10}$  (364.35). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*]. Ref: 2.

**5558 Dihydrochelerythrine**

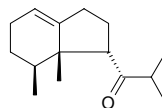
[6880-91-7]  $C_{21}H_{19}NO_4$  (349.39). mp 160~165°C. Source: FEI LONG ZHANG XUE *Toddalia asiatica* [Syn. *Toddalia aculeata*; *Paullinia asiatica*]. Ref: 6.

**5559 11,12-Dihydrochiloscypholone**

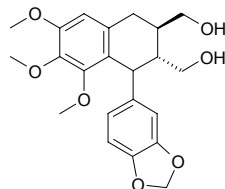
(+)-(1*S*,3*aR*,7*S*,7*aS*)-2,3,3*a*,4,5,6,7,7*a*-Octahydro-3*a*-hydroxyl-7,7*a*-dimethyl-1-(2-methylpropanonyl)-1*H*-indene  $C_{15}H_{26}O_2$  (238.37). Colorless oil. Source: DONG YA ZHI YE TAI *Lepidozia fauriana* (essential oil). Ref: 5209.

**5560 11,12-Dihydrochiloscyphone**

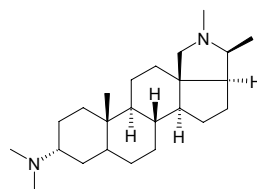
(+)-(1*S*,7*S*,7*aS*)-2,3,5,6,7,7*a*-Hexahydro-7,7*a*-dimethyl-1-(2-methylpropanonyl)-1*H*-indene  $C_{15}H_{24}O$  (220.36). Colorless oil. Source: DONG YA ZHI YE TAI *Lepidozia fauriana* (essential oil). Ref: 5209.

**5561 (-)-Dihydroclusin**

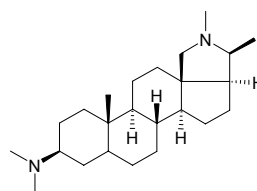
$C_{22}H_{26}O_7$  (402.45). Pharm: CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4,  $IC_{50}$  = 0.8  $\mu$ mol/L; CYP2D6,  $IC_{50}$  > 100  $\mu$ mol/L; control Ketoconazole, CYP3A4,  $IC_{50}$  = 0.72  $\mu$ mol/L; control Quinidine, CYP2D6,  $IC_{50}$  = 0.082  $\mu$ mol/L). Source: BI CHENG QIE *Piper cubeba* (fruit: yield = 0.00017%dw). Ref: 4797.

**5562 Dihydroconcuressine**

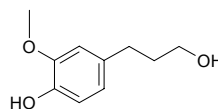
$C_{24}H_{42}N_2$  (358.62). mp 93~94°C. Source: ZHI XIE MU PI *Holarrhena antidysenterica*. Ref: 6.

**5563 Dihydroconessine**

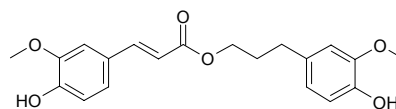
$C_{24}H_{42}N_2$  (358.62). mp 190~191°C. Source: ZHI XIE MU PI *Holarrhena antidysenterica*. Ref: 6.

**5564 Dihydroconiferyl alcohol**

4-Hydroxy-3-methoxyphenylpropanol [2305-13-7]  $C_{10}H_{14}O_3$  (182.22). Pharm: Lettuce cotyledon factor. Source: WO JU *Lactuca sativa*, YI ZHU QIAN MA *Urtica dioica*. Ref: 658, 660.

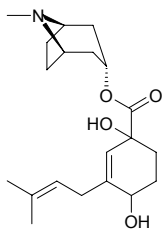
**5565 Dihydroconiferyl ferulate**

$C_{20}H_{22}O_6$  (358.39). Pale yellow semi-solid. Source: LUO TUO HAO *Peganum nigellastrum* (aerial parts). Ref: 3945.

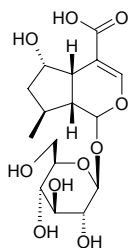


**5566 4'-Dihydroconsabatine**

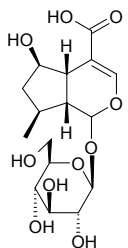
$C_{20}H_{31}NO_4$  (349.47). Oil. Source: *Convolvulus sabatius* ssp. *sabatius* (ground root and rhizome). Ref: 5292.

**5567 6 $\alpha$ -Dihydrocornic acid**

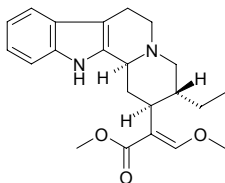
$C_{16}H_{24}O_{10}$  (376.36). Yellow amorphous powder,  $[\alpha]_D^{28} = -67.9^\circ$  ( $c = 1.34$ , MeOH). Source: JI SU ZI *Cornus capitata* [Syn. *Dendrobenthamia capitata*] (root). Ref: 5177.

**5568 6 $\beta$ -Dihydrocornic acid**

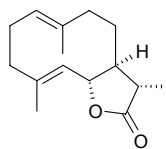
$C_{16}H_{24}O_{10}$  (376.36). Yellow amorphous powder,  $[\alpha]_D^{28} = -271.6^\circ$  ( $c = 0.18$ , MeOH). Source: JI SU ZI *Cornus capitata* [Syn. *Dendrobenthamia capitata*] (root). Ref: 5177.

**5569 Dihydrocorynantheine**

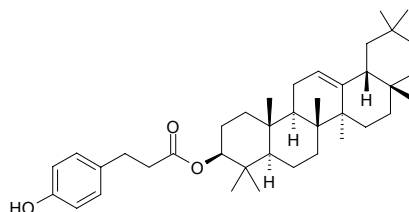
$C_{22}H_{28}N_2O_3$  (368.48). Pharm: CVS activity (tested in both conscious and anaesthetized normotensive rats, arterial pressure in both types of rats fell substantially, while heart rate of only anaesthetized rats also decreased). Source: CHANG HUA GOU TENG *Uncaria longiflora*, DUO MAI GOU TENG *Uncaria nervosa*, FEI ZHOU GOU TENG *Uncaria africana*, GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*], GUI YA NA GOU TENG *Uncaria guianensis*, HOU YE GOU TENG *Uncaria callophylla*, TUO YUAN GOU TENG *Uncaria elliptica*, XIA GOU TENG *Uncaria attenuata*, XIN XING GOU TENG *Uncaria cordata*. Ref: 2, 5341.

**5570 11 $\beta$ ,13-Dihydrocostunolide**

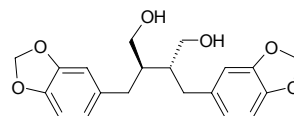
$C_{15}H_{22}O_2$  (234.34). Pharm: Cytotoxic (*in vitro*, HepG<sub>2</sub>, CD<sub>50</sub> = 75 $\mu$ g/mL; HeLa, CD<sub>50</sub> = 85 $\mu$ g/mL; OVCAR-3, CD<sub>50</sub> = 75 $\mu$ g/mL; control Cisplatin, HepG<sub>2</sub>, CD<sub>50</sub> = 2.8 $\mu$ g/mL; HeLa, CD<sub>50</sub> = 5.2 $\mu$ g/mL; OVCAR-3, CD<sub>50</sub> = 3 $\mu$ g/mL). Source: MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*] (root: yield = 0.024%dw). Ref: 4720.

**5571 3-O-Dihydrocoumaroyl- $\beta$ -amyrin**

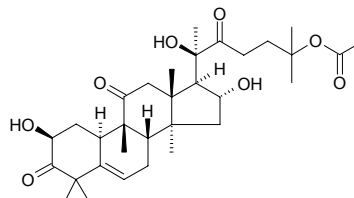
$C_{39}H_{58}O_3$  (574.90). Oil,  $[\alpha]_D^{25.9} = +49.5^\circ$  ( $c = 0.65$ , CHCl<sub>3</sub>). Source: MU MA HUANG *Casuarina equisetifolia*. Ref: 2300.

**5572 Dihydrocubebin**

(-)-Dihydrocubebin [24563-03-9]  $C_{20}H_{22}O_6$  (358.39). Pharm: CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4, IC<sub>50</sub> = 9.5 $\mu$ mol/L; CYP2D6, IC<sub>50</sub> = 17.5 $\mu$ mol/L; control Ketoconazole, CYP3A4, IC<sub>50</sub> = 0.72 $\mu$ mol/L; control Quinidine, CYP2D6, IC<sub>50</sub> = 0.082 $\mu$ mol/L)<sup>[4797]</sup>; antibacterial (*Mycobacterium smegmatis*). Source: BI CHENG QIE *Piper cubeba* (fruit: yield = 0.001%dw)<sup>[4797]</sup>, JI NEI YA HU JIAO *Piper guineense*. Ref: 658, 4797.

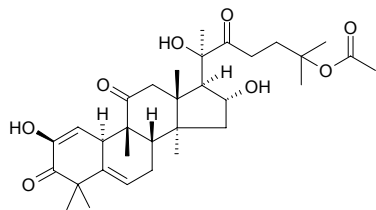
**5573 Dihydrocucurbitacin B**

23,24-Dihydrocucurbitacin B  $C_{32}H_{48}O_8$  (560.73). Pharm: Cytotoxic (hmn cancer lines NUGC-3, IC<sub>50</sub> = 3.26 $\mu$ g/mL, hmn cancer lines HONE-1, IC<sub>50</sub> = 1.55 $\mu$ g/mL)<sup>[4267]</sup>; anti-inflammatory (carrageenan-induced mouse paw edema, 4mg/kg, InRt = 46% at 3h and InRt = 36% at 5h)<sup>[4970]</sup>. Source: TA YOU XIE GUA *Cayaponia tayuya* (root), NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). Ref: 4267, 4970.

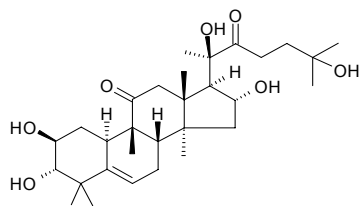


**5574 Dihydrocurbitacin E**

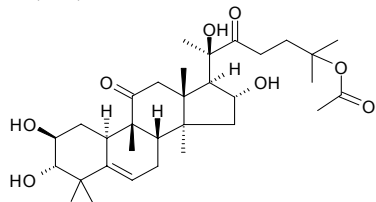
$C_{32}H_{46}O_8$  (558.72). **Pharm:** Cytotoxic (hmn cancer lines NUGC-3,  $IC_{50} = 8.60\mu\text{g/mL}$ , hmn cancer lines HONE-1,  $IC_{50} = 2.68\mu\text{g/mL}$ ). **Source:** NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). **Ref:** 4267.

**5575 Dihydrocurbitacin F**

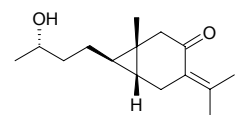
$C_{30}H_{48}O_7$  (520.71). mp 155~157°C. **Source:** DA ZI XUE DAN *Hemsleya macrosperma*, LUO GUO DI *Hemsleya amabilis*, PENG XIAN XUE DAN *Hemsleya pengxianensis*. **Ref:** 6, 554, 660, 1521.

**5576 Dihydrocurbitacin F-25-acetate**

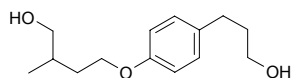
$C_{32}H_{50}O_8$  (562.75). mp 266~268°C. **Source:** CHANG GUO XUE DAN *Hemsleya dolichocarpa* (tuberoid: mean content collected in Aug. to Nov. = 3.46%<sup>[5508]</sup>), DA ZI XUE DAN *Hemsleya macrosperma*, LUO GUO DI *Hemsleya amabilis*, PENG XIAN XUE DAN *Hemsleya pengxianensis*. **Ref:** 6, 554, 660, 5508.

**5577 4S-Dihydrocurcumenone**

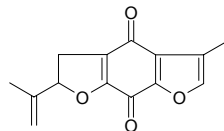
$C_{15}H_{24}O_2$  (236.36). **Pharm:** NO production inhibitor inactive (mus peritoneal macrophages, induced by LPS, 100 $\mu\text{mol/L}$ , InRt = (13.0 $\pm$ 2.0)%), control L-NMMA, 100 $\mu\text{mol/L}$ , InRt = (79.2 $\pm$ 0.9)%,  $p < 0.01$ ). **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 4150.

**5578 Dihydrocupidiol**

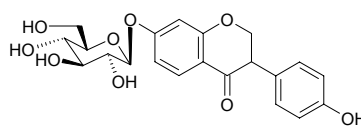
$C_{14}H_{22}O_3$  (238.33). Colorless oil,  $[\alpha]_D^{23} = -11^\circ$  ( $c = 0.1$ ,  $\text{CHCl}_3$ ). **Pharm:** Antifungal (TLC-based assay, *Cladosporium cucumerinum*, MIQ = 0.01 $\mu\text{g}$ ; control Miconazole, MIQ = 1 $\mu\text{g}$ ). **Source:** *Fagara xanthoxyloides*. **Ref:** 5385.

**5579 Dihydrocypaquinone**

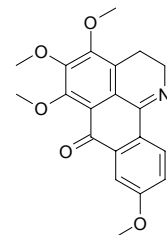
[41555-17-3]  $C_{14}H_{12}O_4$  (244.25). mp 113~114°C. **Source:** PIAO FU CAO *Fimbristylis dichotoma*. **Ref:** 6.

**5580 Dihydrodaidzin**

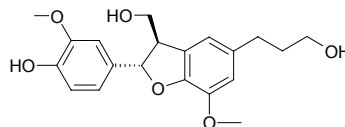
(-)-Dihydrodaidzin; 7-*O*- $\beta$ -D-Glucopyranosyl-4'-hydroxyisoflavanone  $C_{21}H_{22}O_9$  (418.4). Yellow amorphous powder,  $[\alpha]_D^{25} = -12.9^\circ$  ( $c = 1.00$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, Hs740T,  $ED_{50} = 17.37\mu\text{g/mL}$ ; Hs756T,  $ED_{50} = 14.92\mu\text{g/mL}$ ; Hs578T,  $ED_{50} = 28.23\mu\text{g/mL}$ ; Hs742T,  $ED_{50} = 33.57\mu\text{g/mL}$ ; DU145,  $ED_{50} = 9.16\mu\text{g/mL}$ ; LNCaP-FGC,  $ED_{50} = 32.45\mu\text{g/mL}$ ). **Source:** DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.0080%dw). **Ref:** 4630.

**5581 2,3-Dihydroauriporphine**

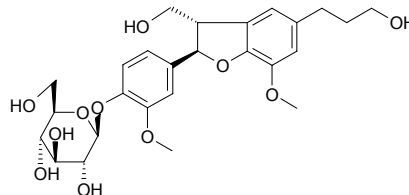
$C_{20}H_{19}NO_5$  (353.38). mp 141.0~142.0°C. **Source:** BIAN FU GE GEN *Menispermum dauricum*. **Ref:** 2402.

**5582 Dihydrodehydrodiconiferyl alcohol**

2 $\alpha$ ,3 $\beta$ -7-*O*-Methylcedrusin  $C_{20}H_{24}O_6$  (360.41).  $[\alpha]_D^{20} = +0.0^\circ$  ( $c = 0.10$ , MeOH). **Source:** HUANG JING ZHONG ZI *Vitex negundo* (seed: yield = 0.0012%), YUE NAN LIE LAN *Bursera tonkinensis* (root). **Ref:** 4791, 5336.

**5583 Dihydrodehydrodiconiferyl alcohol 4'-*O*- $\beta$ -D-glucoside**

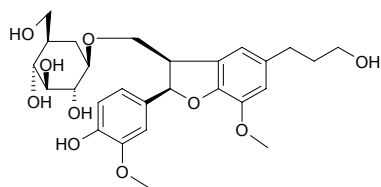
(2*R*,3*S*)-2,3-Dihydro-2-(4'-hydroxy-3'-methoxyphenyl)-3-hydroxymethyl-7-methoxy-5-benzofuranpropanol 4'-*O*- $\beta$ -D-glucopyranoside  $C_{26}H_{34}O_{11}$  (522.55). Amorphous powder,  $[\alpha]_D^{26} = -15.0^\circ$  ( $c = 0.20$ , MeOH);  $[\alpha]_D^{25} = -20.7^\circ$  ( $c = 0.10$ , MeOH). **Source:** LAN SHAI PIAO *Sambucus sieboldiana* (leaf), SHAN FAN GEN *Symplocos caudata*. **Ref:** 2535, 4192.



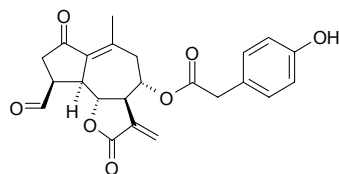
**5584 Dihydrodehydrodiconiferyl alcohol 9'-O-glucoside**

$C_{27}H_{36}O_{10}$  (520.58). Colorless crystals,  $[\alpha]_D^{25} = -15.5^\circ$  ( $c = 2.0$ , MeOH).

Source: RI BEN AN XI XIANG JING PI *Styrax japonica*. Ref: 2546.

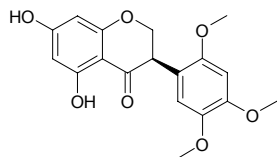
**5585 3,4β-Dihydro-15-dehydrolactucopicrin**

$C_{23}H_{22}O_7$  (410.43). Source: JU QU *Cichorium intybus*. Ref: 736.

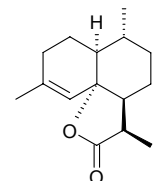
**5586 (R)-2,3-Dihydro-7-demethylrobustigenin**

(R)-5,7-Dihydroxy-2',4',5'-trimethoxyisoflavanone  $C_{18}H_{18}O_7$  (346.34).

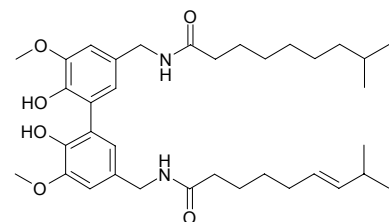
Amorphous powder,  $[\alpha]_D = -28^\circ$  ( $c = 0.1$ , MeOH). Source: *Erythrina saclouxii* (stem cortex). Ref: 5097.

**5587 Dihydro-deoxyarteannuin B**

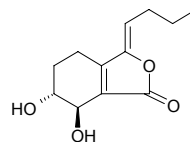
$C_{15}H_{22}O_2$  (234.34). Oil. Source: HUANG HUA HAO *Artemisia annua* (aerial parts). Ref: 5224.

**5588 6'',7''-Dihydro-5',5'''-dicapsaicin**

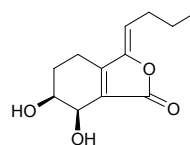
$C_{36}H_{54}N_2O_6$  (610.84). Light yellow oil. Pharm: Antioxidant (ADP/ $Fe^{2+}$ -induced liposomal lipid peroxidation,  $IC_{50} = 10\mu\text{mol/L}$ ; control Capsaicin,  $IC_{50} = 10\mu\text{mol/L}$ ; Vitamin E,  $IC_{50} = 250\mu\text{mol/L}$ )<sup>[4710]</sup>. Source: HONG HAI JIAO *Capsicum annuum* (fruit: yield = 0.00024%). Ref: 4710.

**5589 (Z)-4,5-Dihydro-6,7-trans-dihydroxy-3-butylidene phthalide**

$C_{12}H_{16}O_4$  (224.26). Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. Ref: 2.

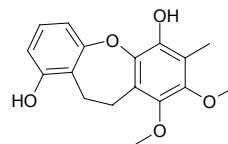
**5590 (Z)-4,5-Dihydro-6,7-cis-dihydroxy-3-butylidene phthalide**

Senkyunolide I [94596-28-8]  $C_{12}H_{16}O_4$  (224.26). Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*], GAO BEN *Ligusticum sinense*. Ref: 2, 660.

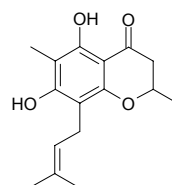
**5591 5,6-Dihydro-1,7-dihydroxy-3,4-dimethoxy-2-methylbenz[b,f]oxepin**

$C_{17}H_{18}O_5$  (302.33). Colorless crystalline solid ( $CHCl_3$ ), mp 215–217°C

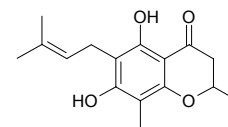
Source: CAI BAN YANG TI JIA *Bauhinia variegata* (root cortex). Ref: 3468.

**5592 2,3-Dihydro-5,7-dihydroxy-2,6-dimethyl-8-(3-methyl-2-butenyl)-4H-1-benzopyran-4-one**

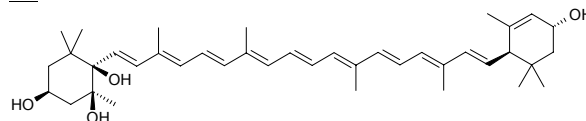
$C_{16}H_{20}O_4$  (276.34). Pale-yellow acicular crystals, mp 122–124°C,  $[\alpha]_D^{25} = -92.8^\circ$  ( $c = 0.13$ ,  $CHCl_3$ ). Source: BAI BEI YE *Mallotus apelta*. Ref: 755.

**5593 2,3-Dihydro-5,7-dihydroxy-2,8-dimethyl-6-(3-methyl-2-butenyl)-4H-1-benzopyran-4-one**

$C_{16}H_{20}O_4$  (276.34). Pale-yellow acicular crystals, mp 160–162°C,  $[\alpha]_D^{25} = -45.4^\circ$  ( $c = 0.11$ ,  $CHCl_3$ ). Source: BAI BEI YE *Mallotus apelta*. Ref: 755.

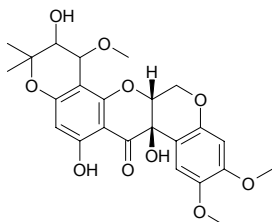
**5594 (3S,5S,6R,3'R,6'R)-5,6-Dihydro-5,6-dihydroxylutein**

$C_{40}H_{58}O_4$  (602.91). Source: DA HUA JU *Dendranthema grandiflorum* (petal). Ref: 3865.

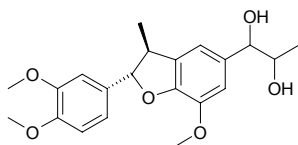


**5595 4',5'-Dihydro-11,5'-dihydroxy-4'-methoxytephrosin**

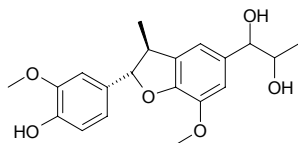
$C_{24}H_{26}O_{10}$  (474.47). Colorless solid,  $[\alpha]_D^{20} = +1.7^\circ$  ( $c = 0.1$ , acetone). **Pharm:** Antineoplastic (Inhibition of DMBA-induced preneoplastic lesions *in vitro*, MMOC assay,  $IC_{50} = 9.1 \mu\text{mol/L}$ ; control Sulforaphane,  $IC_{50} = 11 \mu\text{mol/L}$ ). **Source:** DU HUI MAO DOU *Tephrosia toxicaria* (stem: yield = 0.00016%dw). **Ref:** 4718.

**5596 (2S,3S,1'S,2'R)-and(2S,3S,1'R,2'R)-2,3-Dihydro-5-(1',2'-dihydroxypropyl)-2-(3,4-dimethoxyphenyl)-7-methoxy-3-methylbenzofuran**

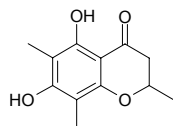
$C_{21}H_{26}O_6$  (374.44). Yellow oil,  $[\alpha]_D^{25} = +3.5^\circ$  ( $c = 1.036$ ,  $\text{CHCl}_3$ ). **Source:** DUAN ROU MAO MA DOU LING *Aristolochia pubescens*. **Ref:** 2359.

**5597 (2S,3S,1'S,2'R)-and(2S,3S,1'R,2'R)-2,3-Dihydro-5-(1',2'-dihydroxypropyl)-2-(4-hydroxy-3-methoxyphenyl)-7-methoxy-3-methylbenzofuran**

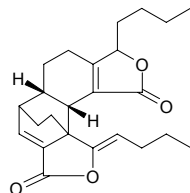
$C_{20}H_{24}O_6$  (360.41). Yellow oil,  $[\alpha]_D^{25} = +3.6^\circ$  ( $c = 1.024$ ,  $\text{CHCl}_3$ ). **Source:** DUAN ROU MAO MA DOU LING *Aristolochia pubescens*. **Ref:** 2359.

**5598 2,3-Dihydro-5,7-dihydroxy-2,6,8-trimethyl-4H-1-benzopyran-4-one**

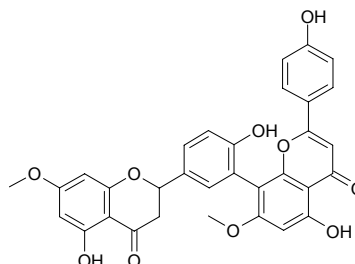
$C_{12}H_{14}O_4$  (222.24). Pale-yellow acicular crystals, mp 200–202°C,  $[\alpha]_D^{25} = -44.1^\circ$  ( $c = 0.14$ ,  $\text{CHCl}_3$ ). **Source:** BAI BEI YE *Mallotus apelta*. **Ref:** 755.

**5599 (Z)-3,8-Dihydro-6,6';7,3'-a-diligustilide**

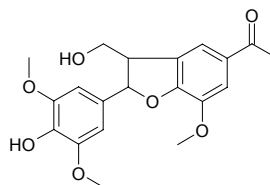
[106533-38-4]  $C_{24}H_{30}O_4$  (382.50). **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. **Ref:** 2.

**5600 2,3-Dihydro-7,7''-dimethoxyamentoflavone**

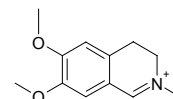
$C_{32}H_{24}O_{10}$  (568.54). Yellow powder, mp > 290°C,  $[\alpha]_D^{24.5} = +5.10^\circ$  ( $c = 0.29$ ,  $\text{C}_5\text{H}_5\text{N}$ ). **Source:** YUN NAN SUI HUA SHAN *Amentotaxus yunnanensis* (leaf and twig: yield = 0.00178%dw). **Ref:** 4707.

**5601 (2R,3S)-Dihydro-2-(3',5'-dimethoxy-4'-hydroxyphenyl)-7-methoxy-5-acetyl-benzofuran**

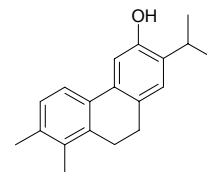
$C_{20}H_{22}O_7$  (374.39). Yellowish resin,  $[\alpha]_D^{25} = -9.6^\circ$  ( $c = 1.80$ , MeOH). **Source:** JUAN BAI *Selaginella tamariscina* (whole herb). **Ref:** 4828.

**5602 3,4-Dihydro-6,7-dimethoxy-2-methyl-isoquinoline**

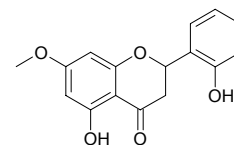
$C_{12}H_{16}NO_2^+$  (206.27). Colorless crystalline, mp 184.5–187.5°C. **Source:** XIAO HUA MU BAN SHU *Xylopiia parviflora* (bark and root). **Ref:** 3794.

**5603 9,10-Dihydro-7,8-dimethyl-2-(1-methylethyl)phenanthren-3-ol**

$C_{19}H_{22}O$  (266.39). Yellowish gum. **Source:** XIU QIU SHU WEI CAO *Salvia hydrangea* (root). **Ref:** 5447.

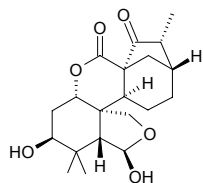
**5604 Dihydroechioidinin**

$C_{16}H_{14}O_5$  (286.29). Colorless needles ( $\text{CHCl}_3$ ), mp 200–201°C,  $[\alpha]_D^{28} = -19.7^\circ$  ( $c = 0.13$ , MeOH). **Source:** LAN JI CHUAN XIN LIAN *Andrographis echioides*. **Ref:** 2379.

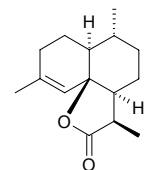


**5605 Dihydroenmein**

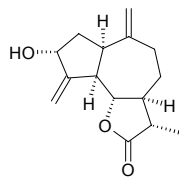
$C_{20}H_{28}O_6$  (364.44). mp 282 (dec), 240–242°C,  $[\alpha]_D = -114^\circ$  ( $C_5H_5N$ ). Source: MAO GUO XIANG CHA CAI *Isodon trichocarpa*. Ref: 4067.

**5606 Dihydro-epi-deoxyarteannuin B**

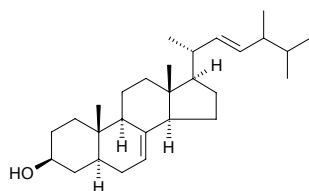
$C_{15}H_{22}O_2$  (234.34). Source: HUANG HUA HAO *Artemisia annua* (aerial parts). Ref: 5224.

**5607 11β,13-Dihydro-3-epizaluzanin C**

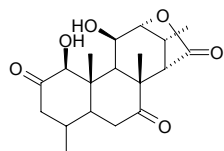
$C_{15}H_{20}O_3$  (248.32). Pharm: Cytotoxic (*in vitro*, HepG<sub>2</sub>, CD<sub>50</sub> = 75 μg/mL; HeLa, CD<sub>50</sub> = 65 μg/mL; OVCAR-3, CD<sub>50</sub> = 65 μg/mL; control Cisplatin, HepG<sub>2</sub>, CD<sub>50</sub> = 2.8 μg/mL; HeLa, CD<sub>50</sub> = 5.2 μg/mL; OVCAR-3, CD<sub>50</sub> = 3 μg/mL). Source: MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*] (root: yield = 0.00034%dw). Ref: 4720.

**5608 5,6-Dihydroergosterol**

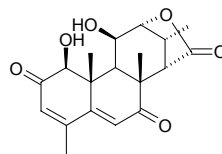
Ergosta-7,22-dien-3β-ol  $C_{28}H_{46}O$  (398.68). mp 176–177°C. Source: CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], LING ZHI *Ganoderma lucidum* (dried sporocarp: yield = 0.00075%). Ref: 6, 4603.

**5609 3,4-Dihydroeurycomalactone**

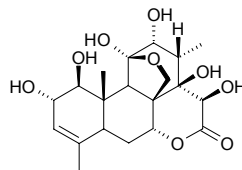
$C_{19}H_{26}O_6$  (350.42). Source: *Eurycoma* sp. Ref: 4556.

**5610 5,6-Dihydroeurycomalactone**

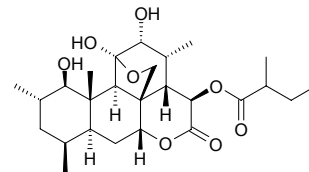
$C_{19}H_{22}O_6$  (346.38). Source: *Eurycoma* sp. Ref: 4556.

**5611 13β,18-Dihydroeurycomanol**

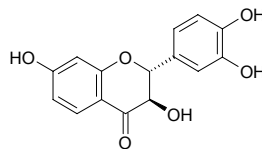
$C_{20}H_{28}O_9$  (412.44). Source: *Eurycoma* sp. Ref: 4556.

**5612 3,4-Dihydro-excelsin**

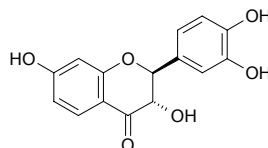
$C_{26}H_{40}O_8$  (480.60). Source: GAO CHU *Ailanthus excelsa*. Ref: 2051.

**5613 (+)Dihydrofisetin**

(+)-Fustin [20725-03-5]  $C_{15}H_{12}O_6$  (288.26). White needles (MeOH), mp 228–229°C,  $[\alpha]_D^{25} = +28.3^\circ$  ( $c = 0.9$ , 50% acetoc). Pharm: Antibacterial (*Pseudomonas maltophilia*, *Enterobacter cloacae*); antiviral (HSV-1); NADH oxidase inhibitor; succinic oxidase inhibitor; anti-rheumatoid arthritis (oral administration 30mg/kg, significantly decreased rheumatoid arthritis (RA) and C-reactive protein (CRP) factors in Freund's complete adjuvant)<sup>[5460]</sup>. Source: JI CAI *Capsella bursa-pastoris*, HUANG LIAN YA *Pistacia chinensis*, LIN BEI ZI *Toxicodendron succedaneum* [Syn. *Rhus succedanea*], QI ZI *Rhus verniciflua* [Syn. *Toxicodendron verniciflum*], YE QI SHU YE *Rhus sylvestris*, *Rhus* sp., *Schinopsis* sp., *Platanus* sp., *Tilia* sp. Ref: 6, 658, 5460

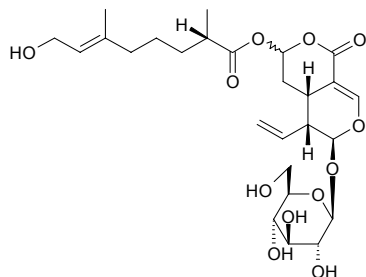
**5614 (–)Dihydrofisetin**

(–)-Fustin  $C_{15}H_{12}O_6$  (288.26). mp 228°C. Source: HUANG LIAN YA *Pistacia chinensis*, LIN BEI ZI *Toxicodendron succedaneum* [Syn. *Rhus succedanea*], JI CAI *Capsella bursa-pastoris*, YE QI SHU YE *Rhus sylvestris*. Ref: 6.

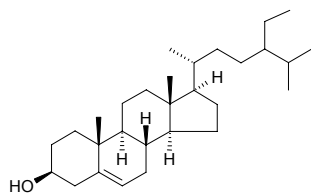


**5615 Dihydrofoliamenthin**

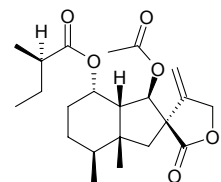
[22314-48-3] C<sub>26</sub>H<sub>38</sub>O<sub>12</sub> (542.59). Source: SHUI CAI *Menyanthes trifoliata*, SHUI CAI GEN *Menyanthes trifoliata*. Ref: 6.

**5616 β-Dihydrofucosterol**

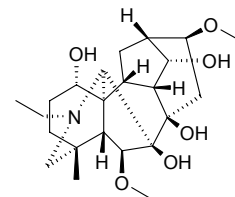
C<sub>29</sub>H<sub>50</sub>O (414.72). Source: ZE QI *Euphorbia helioscopia*. Ref: 6.

**5617 Dihydrofukinolide**

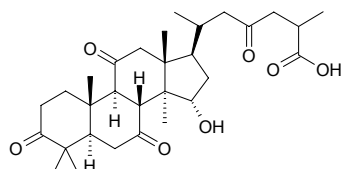
[41059-95-4] C<sub>22</sub>H<sub>32</sub>O<sub>6</sub> (392.50). Source: FENG DOU CAI *Petasites japonicus*. Ref: 6.

**5618 Dihydrogadesine**

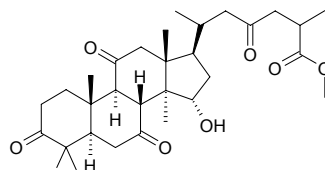
C<sub>23</sub>H<sub>37</sub>NO<sub>6</sub> (423.55). White amorphous powder. Source: QIN LING CUI QUE HUA *Delphinium giraldii*. Ref: 2506.

**5619 8β,9α-Dihydroganoderic acid J**

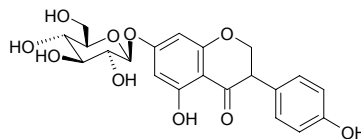
C<sub>30</sub>H<sub>44</sub>O<sub>7</sub> (516.68). Colorless prisms (MeOH-H<sub>2</sub>O), mp 205–208°C, [α]<sub>D</sub><sup>25</sup> = +24° (c = 0.04, MeOH). Source: LING ZHI *Ganoderma lucidum* (dried sporocarp: yield = 0.0005%). Ref: 4603.

**5620 8β,9α-Dihydroganoderic acid J methyl ester**

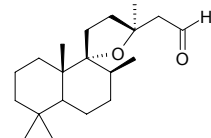
C<sub>31</sub>H<sub>46</sub>O<sub>7</sub> (530.71). Colorless prisms (MeOH-H<sub>2</sub>O), mp 202–205°C, [α]<sub>D</sub><sup>25</sup> = +52° (c = 0.22, MeOH). Source: LING ZHI *Ganoderma lucidum* (dried sporocarp: yield = 0.0003%). Ref: 4603.

**5621 Dihydrogenistin**

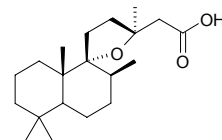
(-)-Dihydrogenistin; 7-*O*-β-*D*-Glucopyranosyl-5,7,4'-trihydroxyisoflavanone C<sub>21</sub>H<sub>22</sub>O<sub>10</sub> (434.4). Yellow amorphous powder, [α]<sub>D</sub><sup>25</sup> = -23.7° (c = 0.50, MeOH). Pharm: Cytotoxic (*in vitro*, Hs740T, ED<sub>50</sub> = 15.12 μg/mL; Hs756T, ED<sub>50</sub> = 12.24 μg/mL; Hs578T, ED<sub>50</sub> = 15.36 μg/mL; Hs742T, ED<sub>50</sub> = 30.8 μg/mL; DU145, ED<sub>50</sub> = 10.25 μg/mL; LNCaP-FGC, ED<sub>50</sub> = 41.58 μg/mL). Source: DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.013% dw). Ref: 4630.

**5622 Dihydrogrindelaldehyde**

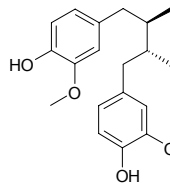
C<sub>20</sub>H<sub>34</sub>O<sub>2</sub> (306.49). Colorless gum. Pharm: Cytotoxic (MCF7, ED<sub>50</sub> = 3.5 μg/mL). Source: *Colophospermum mopane* (bark and seed). Ref: 5147.

**5623 Dihydrogrindelic acid**

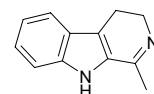
C<sub>20</sub>H<sub>34</sub>O<sub>3</sub> (322.49). Colorless gum. Source: *Colophospermum mopane* (bark and seed). Ref: 5147.

**5624 (-)-Dihydroguaiaretic acid**

C<sub>20</sub>H<sub>26</sub>O<sub>4</sub> (330.43). Source: MEI ZHOU SAN BAI CAO *Saururus cernuus*. Ref: 3959.

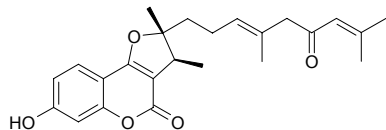
**5625 Dihydroharman**

[525-41-7] C<sub>12</sub>H<sub>12</sub>N<sub>2</sub> (184.24). Source: SHA ZAO SHU PI *Elaeagnus angustifolia*. Ref: 6.



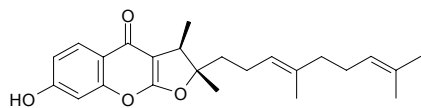
**5626 2,3-Dihydro-7-hydroxy-2*S*\*,3*R*\*-dimethyl-2-[4,8-dimethyl-3(*E*),7-nonadien-6-onyl]-furo[3,2-*c*]coumarin**

C<sub>24</sub>H<sub>28</sub>O<sub>5</sub> (396.49). Oil, [α]<sub>D</sub><sup>21</sup> = 0° (*c* = 0.7, CHCl<sub>3</sub>). Source: DUO SAN A WEI *Ferula ferulaeoides* (root). Ref: 4117.



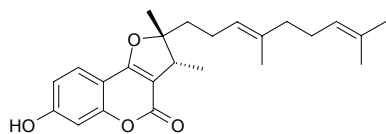
**5627 2,3-Dihydro-7-hydroxy-2*S*\*,3*R*\*-dimethyl-2-[4,8-dimethyl-3(*E*),7-nonadienyl]-furo[2,3-*b*]chromone**

C<sub>24</sub>H<sub>30</sub>O<sub>4</sub> (382.50). Colorless oil, [α]<sub>D</sub><sup>22</sup> = 0° (*c* = 0.2, CHCl<sub>3</sub>). Source: DUO SAN A WEI *Ferula ferulaeoides* (root; yield = 0.05%). Ref: 4193.



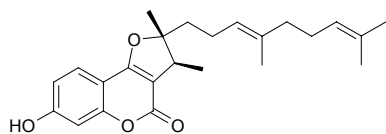
**5628 2,3-Dihydro-7-hydroxy-2*R*\*,3*R*\*-dimethyl-2-[4,8-dimethyl-3(*E*),7-nonadienyl]-furo[3,2-*c*]coumarin**

C<sub>24</sub>H<sub>30</sub>O<sub>4</sub> (382.50). Oil, [α]<sub>D</sub><sup>22</sup> = 0° (*c* = 0.8, CHCl<sub>3</sub>). Source: DUO SAN A WEI *Ferula ferulaeoides* (root). Ref: 4117.



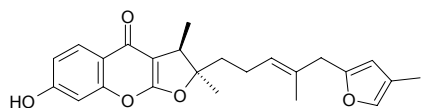
**5629 2,3-Dihydro-7-hydroxy-2*S*\*,3*R*\*-dimethyl-2-[4,8-dimethyl-3(*E*),7-nonadienyl]-furo[3,2-*c*]coumarin**

C<sub>24</sub>H<sub>30</sub>O<sub>4</sub> (382.50). Oil, [α]<sub>D</sub><sup>23</sup> = 0° (*c* = 0.6, CHCl<sub>3</sub>). Source: DUO SAN A WEI *Ferula ferulaeoides* (root). Ref: 4117.



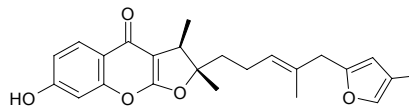
**5630 2,3-Dihydro-7-hydroxy-2*R*\*,3*R*\*-dimethyl-2-[4-methyl-5-(4-methyl-2-furyl)-3(*E*),7-pentenyl]-furo[2,3-*b*]chromone**

C<sub>24</sub>H<sub>26</sub>O<sub>5</sub> (394.47). Colorless oil, [α]<sub>D</sub><sup>22</sup> = 0° (*c* = 0.7, CHCl<sub>3</sub>). Source: DUO SAN A WEI *Ferula ferulaeoides* (root; yield = 0.02%). Ref: 4193.



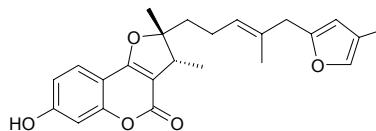
**5631 2,3-Dihydro-7-hydroxy-2*S*\*,3*R*\*-dimethyl-2-[4-methyl-5-(4-methyl-2-furyl)-3(*E*),7-pentenyl]-furo[2,3-*b*]chromone**

C<sub>24</sub>H<sub>26</sub>O<sub>5</sub> (394.47). Colorless oil, [α]<sub>D</sub><sup>22</sup> = 0° (*c* = 0.7, CHCl<sub>3</sub>). Source: DUO SAN A WEI *Ferula ferulaeoides* (root; yield = 0.06%). Ref: 4193.



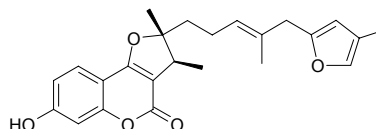
**5632 2,3-Dihydro-7-hydroxy-2*R*\*,3*R*\*-dimethyl-2-[4-methyl-5-(4-methyl-2-furyl)-3(*E*)-pentenyl]-furo[3,2-*c*]coumarin**

C<sub>24</sub>H<sub>26</sub>O<sub>5</sub> (394.47). Oil, [α]<sub>D</sub><sup>23</sup> = 0° (*c* = 0.7, CHCl<sub>3</sub>). Source: DUO SAN A WEI *Ferula ferulaeoides* (root). Ref: 4117.



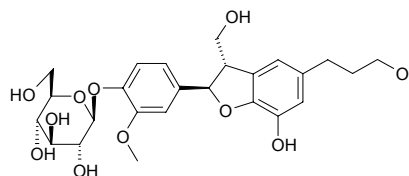
**5633 2,3-Dihydro-7-hydroxy-2*S*\*,3*R*\*-dimethyl-2-[4-methyl-5-(4-methyl-2-furyl)-3(*E*)-pentenyl]-furo[3,2-*c*]coumarin**

C<sub>24</sub>H<sub>26</sub>O<sub>5</sub> (394.47). Oil, [α]<sub>D</sub><sup>23</sup> = 0° (*c* = 0.6, CHCl<sub>3</sub>). Pharm: NO production inhibitor (macrophage-like cell line RAW264.7 activated by LPS/IFN-γ, IC<sub>50</sub> = (87.5±11.7)μmol/L)<sup>[2574]</sup>; cytotoxic inactive (MTT assay, 3~100μmol/L, did not demonstrate any significant cytotoxicity upon LPS/IFN-γ treatment for 24h.)<sup>[2574]</sup>. Source: DUO SAN A WEI *Ferula ferulaeoides* (root), FU KANG A WEI GEN *Ferula fukanensis*. Ref: 2574, 4117.



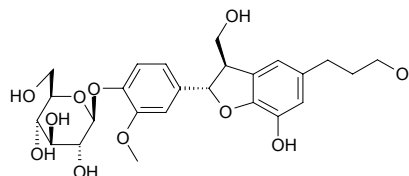
**5634 (2*R*,3*S*)-2,3-Dihydro-7-hydroxy-2-(4'-hydroxy-3'-methoxyphenyl)-3-hydroxymethyl-5-benzofuranpropanol 4'-*O*-β-*D*-glucopyranoside**

C<sub>25</sub>H<sub>32</sub>O<sub>11</sub> (508.53). Amorphous powder, [α]<sub>D</sub><sup>26</sup> = -20.0° (*c* = 0.05, MeOH). Source: LAN SHAI PIAO *Sambucus sieboldiana* (leaf). Ref: 4192.



**5635 (2*S*,3*R*)-2,3-Dihydro-7-hydroxy-2-(4'-hydroxy-3'-methoxyphenyl)-3-hydroxymethyl-5-benzofuranpropanol 4'-*O*-β-*D*-glucopyranoside**

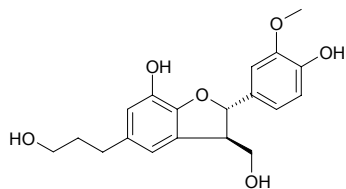
C<sub>25</sub>H<sub>32</sub>O<sub>11</sub> (508.53). Amorphous powder, [α]<sub>D</sub><sup>26</sup> = -35.7° (*c* = 0.14, MeOH). Source: LAN SHAI PIAO *Sambucus sieboldiana* (leaf). Ref: 4192.





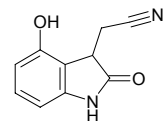
**5636 (7S,8R)-Dihydro-3'-hydroxy-8-hydroxy-methyl-7-(4-hydroxy-3-methoxyphenyl)-1'-benzofuranpropanol**

C<sub>19</sub>H<sub>22</sub>O<sub>6</sub> (346.38). Yellowish oil,  $[\alpha]_D^{20} = -5.3^\circ$  ( $c = 1.0$ , MeOH). Source: TAN XIANG *Santalum album* (heartwood). Ref: 4468.



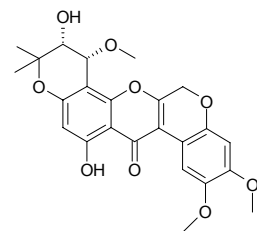
**5637 2,3-Dihydro-4-hydroxy-2-indole-3-acetonitrile**

C<sub>10</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub> (188.19). Orange yellow crystals, mp 150~152°C. Source: BAN LAN GEN *Isatis indigotica*. Ref: 855.



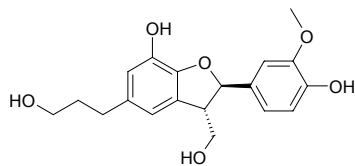
**5638 4,5-Dihydro-5'-α-hydroxy-4'-α-methoxy-6α,12α-dehydro-α-toxicarol**

C<sub>24</sub>H<sub>24</sub>O<sub>9</sub> (456.45). Yellow needles, mp 215~218°C,  $[\alpha]_D^{20} = +0.1^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>:MeOH = 1:1). Source: SAN LIE XUE TONG *Macaranga triloba* (leaf). Ref: 3756.



**5639 (2R-trans)-2,3-Dihydro-2-(4-hydroxy-3-methoxyphenyl)-3-(hydroxymethyl)-7-hydroxy-5-benzofuran-propanol**

C<sub>19</sub>H<sub>22</sub>O<sub>6</sub> (346.38). Pharm: Plant growth stimulatory or inhibitory activity (radicle length: *Lactuca sativa*, 1 μmol/L, StRt = (31~60)%, 10 μmol/L, StRt = (10~30)%, 100 μmol/L, StRt = (31~60)%, 1 mmol/L, StRt = (10~30)%; *Raphanus sativus*, 1 μmol/L, StRt = (31~60)%, 10 μmol/L, StRt = (31~60)%, 100 μmol/L, StRt = (10~30)%, 1 mmol/L, InRt = (10~30)%; *Allium cepa*, 1 μmol/L, StRt = (31~60)%, 10 μmol/L, StRt or InRt < 10%, 100 μmol/L, StRt = (10~30)%, 1 mmol/L, InRt > 61%). Source: XI YANG JIE GU MU *Sambucus nigra*. Ref: 5217.

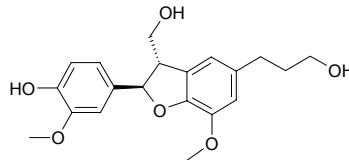


**5640 (2R-trans)-2,3-Dihydro-2-(4-hydroxy-3-methoxyphenyl)-3-(hydroxymethyl)-7-methoxy-5-benzofuran-propanol**

C<sub>20</sub>H<sub>24</sub>O<sub>6</sub> (360.41). Pharm: Plant growth stimulatory or inhibitory activity (radicle length: *Lactuca sativa*, 1 μmol/L, StRt = (31~60)%, 10 μmol/L, StRt = (31~60)%, 100 μmol/L, StRt or InRt < 10%, 1 mmol/L, InRt > 61%; *Raphanus sativus*, 1 μmol/L, StRt > 61%, 10 μmol/L, StRt = (31~60)%, 100 μmol/L, StRt = (31~60)%).

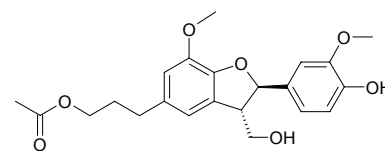
1 mmol/L, StRt = (31~60)%; *Allium cepa*, 1 μmol/L, StRt = (31~60)%, 10 μmol/L, StRt = (10~30)%, 100 μmol/L, StRt = (10~30)%, 1 mmol/L, InRt = (31~60)%).

Source: XI YANG JIE GU MU *Sambucus nigra*. Ref: 5217.



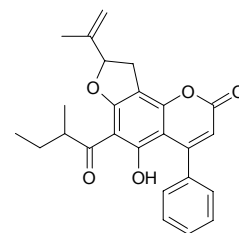
**5641 (2R-trans) 2,3-Dihydro-2-(4-hydroxy-3-methoxyphenyl)-3-(hydroxymethyl)-7-methoxy-5-benzofuranpropanol acetate**

C<sub>22</sub>H<sub>26</sub>O<sub>7</sub> (402.45). Pharm: Plant growth stimulatory or inhibitory activity (radicle length: *Lactuca sativa*, 1 μmol/L, StRt = (10~30)%, 10 μmol/L, StRt = (31~60)%, 100 μmol/L, StRt = (31~60)%, 1 mmol/L, StRt > 61%; *Raphanus sativus*, 1 μmol/L, StRt = (31~60)%, 10 μmol/L, StRt > 61%, 100 μmol/L, StRt = (10~30)%, 1 mmol/L, InRt = (10~30)%; *Allium cepa*, 1 μmol/L, StRt = (10~30)%, 10 μmol/L, StRt = (31~60)%, 100 μmol/L, StRt = (10~30)%, 1 mmol/L, StRt = (10~30)%). Source: XI YANG JIE GU MU *Sambucus nigra*. Ref: 5217.



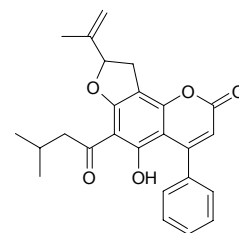
**5642 8,9-Dihydro-5-hydroxy-6-(2-methylbutanoyl)-4-phenyl-8-(prop-1-en-2-yl)furo[2,3-h]chromen-2-one**

C<sub>25</sub>H<sub>24</sub>O<sub>5</sub> (404.47). Source: TIE LI MU *Mesua ferrea* (blossom). Ref: 3870.



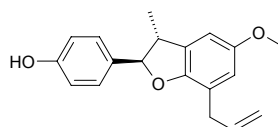
**5643 8,9-Dihydro-5-hydroxy-6-(3-methylbutanoyl)-4-phenyl-8-(prop-1-en-2-yl)furo[2,3-h]chromen-2-one**

C<sub>25</sub>H<sub>24</sub>O<sub>5</sub> (404.47). Source: TIE LI MU *Mesua ferrea* (blossom). Ref: 3870.



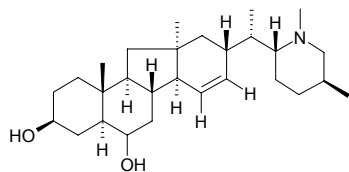
**5644 (2R,3R)-2,3-Dihydro-2-(4-hydroxyphenyl)-5-methoxy-3-methyl-7-propenylbenzofuran**

C<sub>19</sub>H<sub>20</sub>O<sub>3</sub> (296.37). Colorless oil,  $[\alpha]_D^{25} = +358^\circ$  ( $c = 1.91$ , MeOH). Source: TE LI NI DA HU JIAO *Piper aequale*. Ref: 1910.

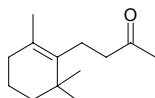


**5645 Dihydroimpranine**

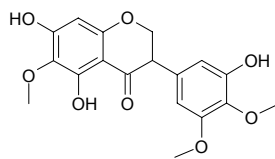
(17*R*,20*S*,22*R*)-5*α*-Impra-15,16-ene-3*β*,6*β*-diol C<sub>28</sub>H<sub>47</sub>NO<sub>2</sub> (429.69). Amorphous powder,  $[\alpha]_D^{25} = -32^\circ$  ( $c = 0.08$ , MeOH). Source: XI BEI MU *Fritillaria imperialis*. Ref: 3372.

**5646 Dihydro- $\beta$ -ionone**

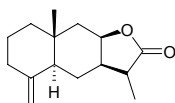
C<sub>13</sub>H<sub>22</sub>O (194.32). bp 126–129°C/12mmHg. Source: GUI HUA *Osmanthus fragrans*. Ref: 6.

**5647 2,3-Dihydroirigenin**

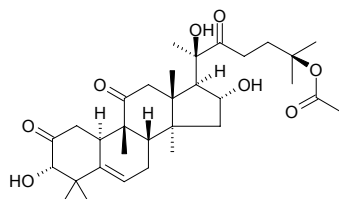
C<sub>18</sub>H<sub>18</sub>O<sub>8</sub> (362.34). Pale yellow amorphous powder,  $[\alpha]_D = 0^\circ$  ( $c = 0.5$ , MeOH). Source: SHE GAN *Belamcanda chinensis* (rhizome). Ref: 4128.

**5648 Dihydroisoalantolactone**

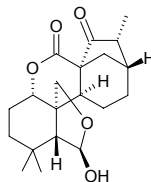
11*α*,13-Dihydroisoalantolactone C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). mp 171–172°C. Pharm: Anthelmintic (effect and toxicity similar to santonin); cytotoxic inactive (SMMC-7721 IC<sub>50</sub> = (174.5±20.2)μg/mL, Vincristine IC<sub>50</sub> = (30.35±2.23)μg/mL; HO-8910 IC<sub>50</sub> = (169.2±16.3)μg/mL, Vincristine IC<sub>50</sub> = (20.74±1.91)μg/mL; LO2 hmn hepatocytes cell IC<sub>50</sub> = (713.3±23.1)μg/mL, Vincristine IC<sub>50</sub> = (17.25±0.91)μg/mL)<sup>[5422]</sup>. Source: CHANG YE TIAN MING JING *Carpesium longifolium* (aerial parts: yield = 0.001%dw)<sup>[4736]</sup>, JIN FEI CAO *Inula japonica*, TU MU XIANG *Inula helenium*. Ref: 6, 658, 1521, 4736, 5422.

**5649 Dihydroisocurbitacin B**

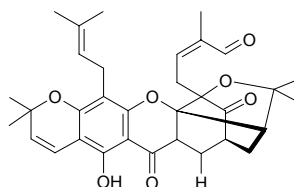
C<sub>32</sub>H<sub>48</sub>O<sub>8</sub> (560.73). Colorless acicular crystals, mp 235–237°C. Source: XIN YE CHI BO *Thladiantha cordifolia*. Ref: 425.

**5650 Dihydroisodocarpin**

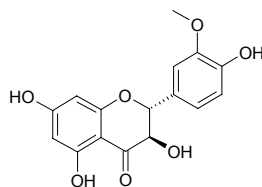
C<sub>20</sub>H<sub>28</sub>O<sub>5</sub> (348.44). mp 220–226°C. Source: ZHOU YE XIANG CHA CAI *Isodon rugosus* [Syn. *Rabdosia rugosa*]. Ref: 4067.

**5651 Dihydroisomorellin**

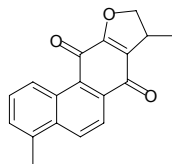
[1064-70-6] C<sub>33</sub>H<sub>38</sub>O<sub>7</sub> (546.67). mp 167°C. Source: TENG HUANG *Garcinia morella*. Ref: 6.

**5652 (+)-Dihydroisorhamnetin**

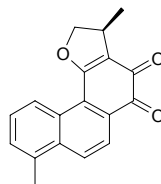
C<sub>16</sub>H<sub>14</sub>O<sub>7</sub> (318.29). Pharm: Antioxidant inactive (Takamatsu DCFH method, myelomonocytic HL-60 cells, control NDGA, IC<sub>50</sub> = (0.7±0.3)μg/mL, Vitamin C, IC<sub>50</sub> = (1.9±0.7)μg/mL, Trolox, IC<sub>50</sub> = (1.4±0.5)μg/mL)<sup>[3850]</sup>; cytotoxic (XTT assay, HL-60 cells, IC<sub>50</sub> > 50.0μg/mL; control NDGA, IC<sub>50</sub> = (2.6±0.2)μg/mL, Vitamin C, IC<sub>50</sub> > 10.0μg/mL, Trolox, IC<sub>50</sub> > 10.0μg/mL)<sup>[3850]</sup>. Source: SAN CHI LA RUI A *Larrea tridentata* (leaf), WU YA GUO *Dillenia indica*. Ref: 1521, 3850.

**5653 Dihydroisotanshinone I**

C<sub>18</sub>H<sub>14</sub>O<sub>3</sub> (278.31). Source: DAN SHEN *Salvia miltiorrhiza*. Ref: 2.

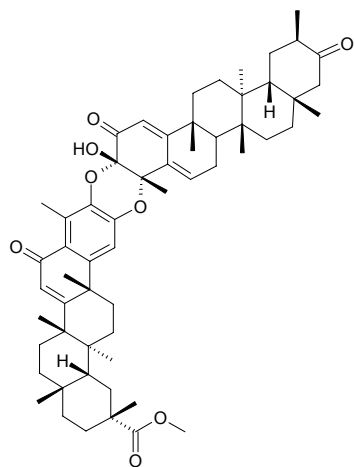
**5654 Dihydroisotanshinone II**

11,16-Oxy-18,20-dinor-1,3,5(10),6,8,11-abietahexaene-13,14-dione C<sub>18</sub>H<sub>14</sub>O<sub>3</sub> (278.31). Red crystals (MeOH), mp 247–249°C. Source: JIAO ZHI SHU WEI CAO *Salvia glutinosa* (root). Ref: 2384.

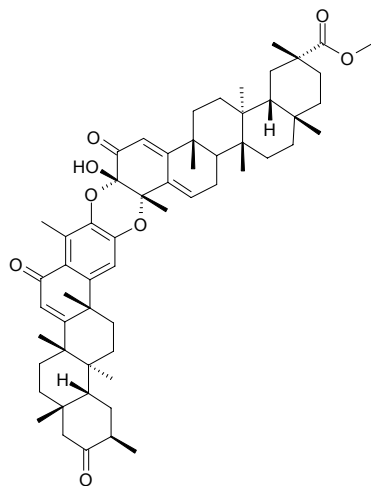


**5655 7,8-Dihydroisoxuxuarine Fa**

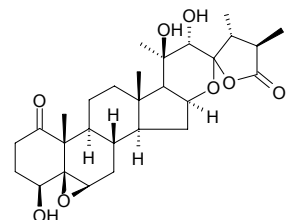
Cangorosin B C<sub>38</sub>H<sub>76</sub>O<sub>8</sub> (901.25). Yellow amorphous solid. Source: QIU SHI MEI DENG MU *Maytenus chuchuhuasca*(bark). Ref: 4295.

**5656 7,8-Dihydroisoxuxuarine Ga**

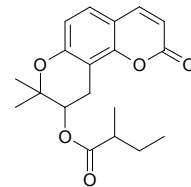
C<sub>58</sub>H<sub>76</sub>O<sub>8</sub> (901.25). Yellow amorphous solid. Source: QIU SHI MEI DENG MU *Maytenus chuchuhuasca*(bark). Ref: 4295.

**5657 2,3-Dihydroisoxocarplactone B**

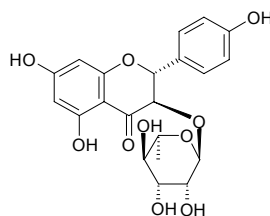
C<sub>28</sub>H<sub>40</sub>O<sub>8</sub> (504.63). White amorphous powder, mp 178~180°C,  $[\alpha]_D^{20} = -93^\circ$  ( $c = 0.089$ , CH<sub>3</sub>CN). Pharm: Quinone reductase inducer (mus Hepa 1c1c7 cells, CD = (3.81±1.47)μmol/L, IC<sub>50</sub> = (96.9±2.4)μmol/L, CI = 20, positive control Sulforaphane, CD = (0.36±0.17)μmol/L, IC<sub>50</sub> = (9.9±2.1)μmol/L, CI = 28). Source: FEI CHENG SUAN JIANG *Physalis philadelphica* (stem and leaf). Ref: 4337.

**5658 2',3'-Dihydro-jatamansin**

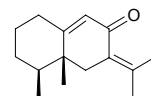
C<sub>19</sub>H<sub>22</sub>O<sub>5</sub> (330.38). Amorphous powder,  $[\alpha]_D^{25} = +53.6^\circ$  ( $c = 0.8$ , MeOH). Source: *Niphogeton ternata*. Ref: 4156.

**5659 Dihydrokaempferol-3-O-α-L-rhamnopyranoside**

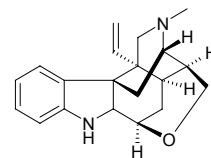
Engeletin; Engelitin [572-31-6] C<sub>21</sub>H<sub>22</sub>O<sub>10</sub> (434.40). Colorless massive crystals, mp 169~171°C. Pharm: Antimalarial (*Plasmodium falciparum* PoW, IC<sub>50</sub> > 50μg/mL, control Chloroquine diphosphate, IC<sub>50</sub> = (0.006±0.002)μg/mL; Dd2, IC<sub>50</sub> < 50μg/mL, Chloroquine diphosphate, IC<sub>50</sub> = (0.063±0.01)μg/mL)<sup>[5208]</sup>. Source: BA QIA *Smilax china* [Syn. *Smilax japonica*], TU FU LING *Smilax glabra*, WU CI KE YA SHU *Andira inermis* (leaf). Ref: 714, 2192, 5208.

**5660 Dihydrokaranone**

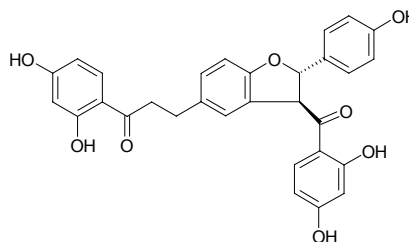
C<sub>15</sub>H<sub>22</sub>O (218.34). Source: BAI MU XIANG *Aquilaria sinensis*, CHEN XIANG *Aquilaria agallocha*. Ref: 13.

**5661 Dihydrokoumine**

C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O (308.43). Source: GOU WEN *Gelsemium elegans*. Ref: 14.

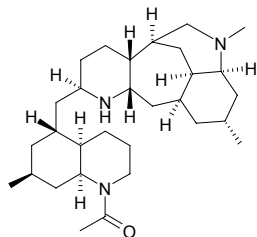
**5662 Dihydrolophirone C**

C<sub>30</sub>H<sub>24</sub>O<sub>8</sub> (512.52). Yellow crystals, mp 187~188°C (Me<sub>2</sub>CO),  $[\alpha]_D^{25} = -18^\circ$  ( $c = 0.6$ , Me<sub>2</sub>CO). Source: *Ochna afzelii* (stem cortex). Ref: 5153.

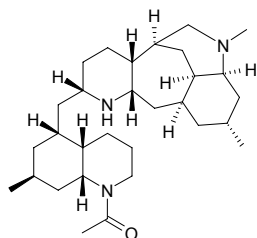


**5663 DihydroLucidine A**

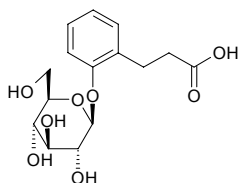
$C_{30}H_{51}N_3O$  (469.76). Source: GUANG LIANG SHI SONG *Lycopodium lucidulum*. Ref: 3927.

**5664 DihydroLucidine B**

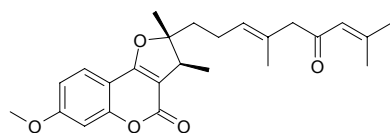
$C_{30}H_{51}N_3O$  (469.76). Source: GUANG LIANG SHI SONG *Lycopodium lucidulum*. Ref: 3927.

**5665 Dihydromelilotoside**

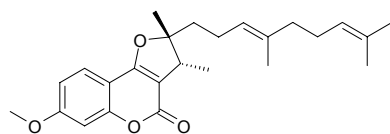
3-(2-*O*- $\beta$ -D-Glucosylphenyl)propanoic acid [24696-05-7]  $C_{15}H_{20}O_8$  (328.32). Colorless thin lamellar (ethyl acetate), mp 144–145°C. Pharm: Antiulcerative (rat, ip, 8 $\mu$ g/kg, inhibits 5-HT induced ulcer, InRt = 40%). Source: GUI ZHI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*], PI HAN CAO *Melilotus suaveolens*. Ref: 6, 1155.

**5666 2,3-Dihydro-7-methoxy-2*S*\*,3*R*\*-dimethyl-2-[4,8-dimethyl-3(*E*),7-nonadien-6-onyl]-furo[3,2-*c*]coumarin**

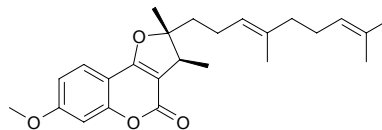
$C_{25}H_{30}O_5$  (410.51). Oil,  $[\alpha]_D^{23} = 0^\circ$  ( $c = 0.7$ ,  $CHCl_3$ ). Source: DUO SAN A WEI *Ferula ferulaeoides* (root). Ref: 4117.

**5667 2,3-Dihydro-7-methoxy-2*R*\*,3*R*\*-dimethyl-2-[4,8-dimethyl-3(*E*),7-nonadienyl]-furo[3,2-*c*]coumarin**

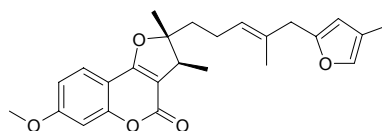
$C_{25}H_{32}O_4$  (396.53). Oil,  $[\alpha]_D^{24} = 0^\circ$  ( $c = 0.4$ ,  $CHCl_3$ ). Source: DUO SAN A WEI *Ferula ferulaeoides* (root). Ref: 4117.

**5668 2,3-Dihydro-7-methoxy-2*S*\*,3*R*\*-dimethyl-2-[4,8-dimethyl-3(*E*),7-nonadienyl]-furo[3,2-*c*]coumarin**

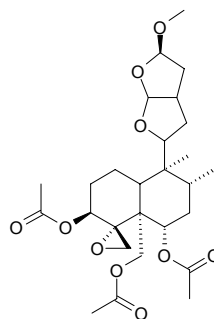
$C_{25}H_{32}O_4$  (396.53). Oil,  $[\alpha]_D^{24} = 0^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). Source: DUO SAN A WEI *Ferula ferulaeoides* (root). Ref: 4117.

**5669 2,3-Dihydro-7-methoxy-2*S*\*,3*R*\*-dimethyl-2-[4-methyl-5-(4-methyl-2-furyl)-3(*E*)-pentenyl]-furo[3,2-*c*]coumarin**

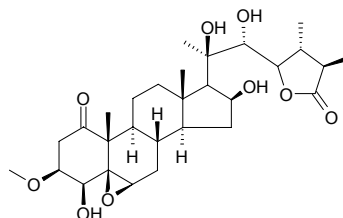
$C_{25}H_{28}O_5$  (408.50). Oil,  $[\alpha]_D^{23} = 0^\circ$  ( $c = 0.6$ ,  $CHCl_3$ ). Pharm: NO production inhibitor (macrophage-like cell line RAW264.7 activated by LPS/IFN- $\gamma$ ,  $IC_{50} = (27.8 \pm 4.6) \mu\text{mol/L}$ )<sup>[2574]</sup>; inhibits the inducible nitric oxide synthase (iNOS) gene expression (LPS/IFN- $\gamma$  treatment increased the level of iNOS mRNA expression, and the compound inhibits this increase, dose-dependent manner)<sup>[2574]</sup>; cytotoxic inactive (MTT assay, 3–100 $\mu\text{mol/L}$ , did not demonstrate any significant cytotoxicity upon LPS/IFN- $\gamma$  treatment for 24h.)<sup>[2574]</sup>. Source: DUO SAN A WEI *Ferula ferulaeoides* (root), FU KANG A WEI GEN *Ferula fukanensis*. Ref: 2574, 4117.

**5670 14,15-Dihydro-15 $\beta$ -methoxy-3-epicaryoptin**

$C_{27}H_{40}O_{10}$  (524.61). Viscous mass,  $[\alpha]_D = -57.4^\circ$  ( $CHCl_3$ ). Source: KU LANG SHU *Clerodendrum inerme* (leaf). Ref: 5261.

**5671 2,3-Dihydro-3 $\beta$ -methoxyxycarpalactone A**

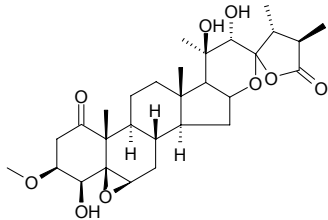
$C_{29}H_{44}O_9$  (536.67). White amorphous powder, mp 240–243°C,  $[\alpha]_D^{20} = -39^\circ$  ( $c = 0.088$ ,  $CH_3CN$ ), artifact generated during the extraction and isolation procedure. Pharm: Quinone reductase inducer (mus Hepa 1c1c7 cells, CD =  $(18.63 \pm 4.29) \mu\text{mol/L}$ ,  $IC_{50} > 20 \mu\text{mol/L}$ , positive control Sulforaphane, CD =  $(0.36 \pm 0.17) \mu\text{mol/L}$ ,  $IC_{50} = (9.9 \pm 2.1) \mu\text{mol/L}$ , CI = 28). Source: FEI CHENG SUAN JIANG *Physalis philadelphica* (stem and leaf). Ref: 4337.



**5672 2,3-Dihydro-3 $\beta$ -methoxyoxycarpalactone B**

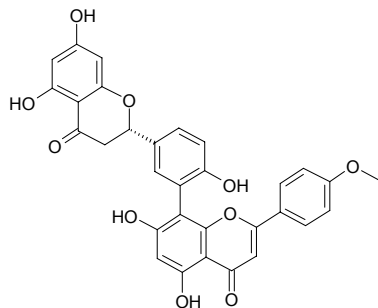
C<sub>29</sub>H<sub>42</sub>O<sub>9</sub> (534.65). White amorphous powder, mp 190~192°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -117° (*c* = 0.076, CH<sub>3</sub>CN), artifact generated during the extraction and isolation procedure.

**Pharm:** Quinone reductase inducer (mus Hepa 1c1c7 cells, CD = (10.15±4.18) $\mu$ mol/L, IC<sub>50</sub> = (106.6±0.2) $\mu$ mol/L, CI = 10, positive control Sulforaphane, CD = (0.36±0.17) $\mu$ mol/L, IC<sub>50</sub> = (9.9±2.1) $\mu$ mol/L, CI = 28). **Source:** FEI CHENG SUAN JIANG *Physalis philadelphica* (stem and leaf). **Ref:** 4337.

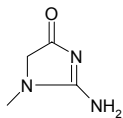
**5673 2,3-Dihydro-4'''-O-methyl amentoflavone**

C<sub>31</sub>H<sub>22</sub>O<sub>10</sub> (554.51). Yellow crystals, mp 231~232°C (dec), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -0.53° (*c* = 1.33, MeOH). **Source:** NAN YIN DU SU TIE SHU GUO *Cycas beddomei*.

**Ref:** 2540.

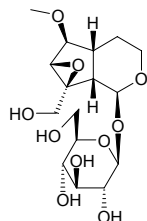
**5674 1,5-Dihydro-1-methyl-2-amino-imidazol-4-one**

C<sub>4</sub>H<sub>7</sub>N<sub>3</sub>O (113.12). Yellowish crystalline powder, mp > 300°C (H<sub>2</sub>O). **Source:** CU WEN HAI LONG *Trachyrhampus serratus*. **Ref:** 4583.

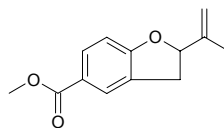
**5675 3,4-Dihydro-methylcatalpol**

C<sub>16</sub>H<sub>26</sub>O<sub>10</sub> (378.38). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = -77° (*c* = 0.3, MeOH).

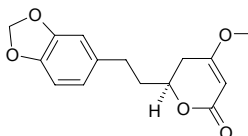
**Pharm:** Antitrypanosomal (*Trypanosoma brucei rhodesiense*, IC<sub>50</sub> = 73.0 $\mu$ g/mL, control Melarsoprol, IC<sub>50</sub> = 0.0033 $\mu$ g/mL; *Trypanosoma cruzi*, IC<sub>50</sub> > 90 $\mu$ g/mL, control Benznidazole, IC<sub>50</sub> = 0.70 $\mu$ g/mL); antileishmanial (*Leishmania donovani*, IC<sub>50</sub> = 12.7 $\mu$ g/mL, control Miltefosine, IC<sub>50</sub> = 0.32 $\mu$ g/mL); antimalarial (*Plasmodium falciparum*, IC<sub>50</sub> > 50 $\mu$ g/mL, control Artemisinin, IC<sub>50</sub> = 0.002 $\mu$ g/mL); cytotoxic (L6 cells, IC<sub>50</sub> > 90 $\mu$ g/mL, control Podophyllotoxin, IC<sub>50</sub> = 0.0075 $\mu$ g/mL). **Source:** LIN PIAN XUAN SHEN *Scrophularia lepidota* (root). **Ref:** 5251.

**5676 (±)-2,3-Dihydro-2-(1-methylethenyl)-5-benzofurancarboxylic acid methyl ester**

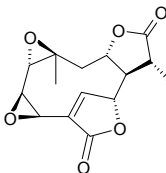
[69703-22-6] C<sub>13</sub>H<sub>14</sub>O<sub>3</sub> (218.25). **Source:** BAI HUA LONG DAN *Gentiana algida*. **Ref:** 704.

**5677 Dihydrmethysticin**

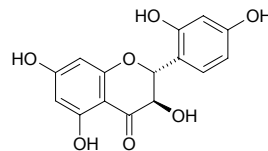
[19902-91-1] C<sub>15</sub>H<sub>16</sub>O<sub>5</sub> (276.29). **Pharm:** Antispasmodic. **Source:** KA WA HU JIAO *Piper methysticum*. **Ref:** 658.

**5678 Dihydrmikanolide**

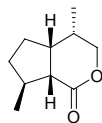
[23758-04-5] C<sub>15</sub>H<sub>16</sub>O<sub>6</sub> (292.29). **Pharm:** Antifungal (*Candida albicans*). **Source:** WEI GAN JU *Mikania scandens*. **Ref:** 658.

**5679 Dihydrmorin**

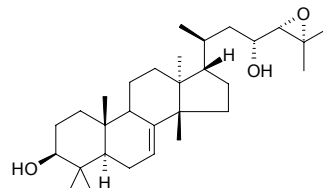
[18422-83-8] C<sub>15</sub>H<sub>12</sub>O<sub>7</sub> (304.26). mp 226~228°C. **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor, IC<sub>50</sub> = 20.4 $\mu$ g/mL); cytotoxic (mouse mammary organ culture assay, 82% at 10 $\mu$ g/mL). **Source:** DA DA HE MIAN BAO GUO *Artocarpus dadah*, SANG ZHI *Morus alba*. **Ref:** 6, 5038.

**5680 Dihydronepetalactone**

[17672-81-0] C<sub>10</sub>H<sub>16</sub>O<sub>2</sub> (168.24). **Source:** JIA JING JIE *Nepeta cataria*, MU TIAN LIAO *Actinidia polygama*. **Ref:** 6.

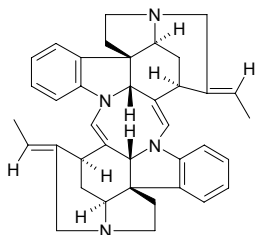
**5681 Dihydrniloticin**

C<sub>30</sub>H<sub>50</sub>O<sub>3</sub> (458.73). **Source:** *Eurycoma* sp. **Ref:** 4556.

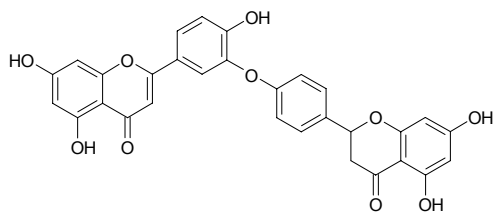


**5682 Dihydrortonoxiferine I**

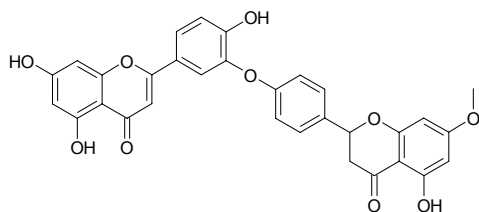
$C_{38}H_{40}N_4$  (552.77). Free alkali: amorphous powder, bitter acid salt (acetone–water): mp 300°C (dec). **Pharm:** Antibacterial (*Bacillus coli*, *Bacillus pyocyaneus*, and *Staphylococcus aureus*, 0.8–3.0mg/mL); antifungal (*Candida albicans*, 0.8–3.0mg/mL). **Source:** A FU ZE ER MA QIAN ZI *Strychnos afzelii*, CHANG HUA XU MA QIAN ZI *Strychnos dolichothersa*, YA MA XUN MA QIAN ZI *Strychnos amazonica*. **Ref:** 661.

**5683 2'',3''-Dihydroochnaflavone**

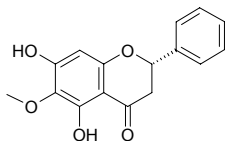
$C_{30}H_{20}O_{10}$  (540.48). mp > 300°C,  $[\alpha]_D^{20} = +6.8^\circ$  ( $c = 0.2$ , MeOH). **Source:** JIN LIAN MU *Ochna integerrima* (leaf). **Ref:** 5133.

**5684 2'',3''-Dihydroochnaflavone 7''-O-methyl ether**

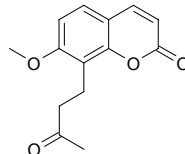
$C_{31}H_{22}O_{10}$  (554.51). mp 180–182°C,  $[\alpha]_D^{20} = +7.7^\circ$  ( $c = 0.2$ , MeOH). **Source:** JIN LIAN MU *Ochna integerrima* (leaf). **Ref:** 5133.

**5685 Dihydrooxylin A**

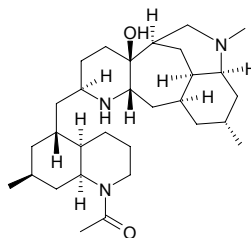
Dihydrooxylin [18956-18-8]  $C_{16}H_{14}O_5$  (286.29). **Source:** HUANG QIN *Scutellaria baicalensis*. **Ref:** 2.

**5686 Dihydroosthenon**

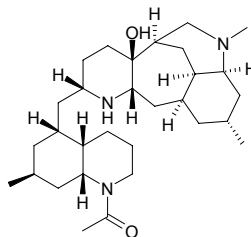
$C_{14}H_{14}O_4$  (246.27). **Pharm:** Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500mol ratio/32 pmol TPA: EBV-EA-positive cells = (14.7±1.2)% (viability > 80%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability > 80), Curcumin, EBV-EA-positive cells = (22.8±1.8)% (viability > 80%), compound  $IC_{50} = 176$ mol ratio/32 pmol TPA,  $\beta$ -Carotene,  $IC_{50} = 400$ mol ratio/32 pmol TPA, Curcumin,  $IC_{50} = 341$ mol ratio/32 pmol TPA). **Source:** *Citrus hassaku*. **Ref:** 5048.

**5687 Dihydrooxolucidine A**

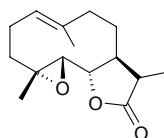
$C_{30}H_{51}N_3O_2$  (485.76).  $[\alpha]_D^{21.5} = +3.9^\circ$  ( $c = 0.79$ ,  $CHCl_3$ ). **Source:** GUANG LIANG SHI SONG *Lycopodium lucidulum*. **Ref:** 3927.

**5688 Dihydrooxolucidine B**

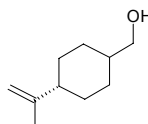
$C_{30}H_{51}N_3O_2$  (485.76). **Source:** GUANG LIANG SHI SONG *Lycopodium lucidulum*. **Ref:** 3927.

**5689 11 $\beta$ ,13-Dihydroparthenolide**

$C_{15}H_{22}O_3$  (250.34). **Pharm:** Cytotoxic (*in vitro*, SMMC-7721,  $IC_{50} > 200$ μg/mL; HO-8910,  $IC_{50} = 158$ μg/mL; control Vincristine, SMMC-7721,  $IC_{50} = 30.35$ μg/mL; HO-8910,  $IC_{50} = 20.74$ μg/mL)<sup>[4736]</sup>. **Source:** CHANG YE TIAN MING JING *Carpesium longifolium* (aerial parts: yield = 0.0007%dw). **Ref:** 4736.

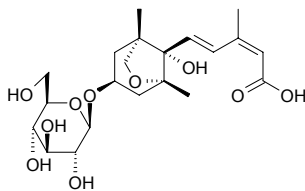
**5690 Dihydroperilla alcohol**

$C_{10}H_{18}O$  (154.25). **Source:** ZI SU YE *Perilla frutescens* var. *arguta*. **Ref:** 2.

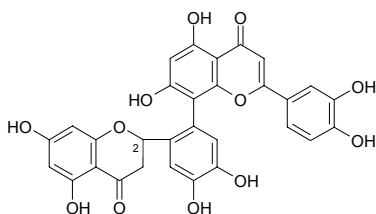


**5691 Dihydrophaseic acid 4'-O-β-D-glucopyranoside**

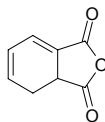
(1'R,3'R,5'R,8'S)-Epi-dihydrophaseic acid β-D-glucoside C<sub>21</sub>H<sub>32</sub>O<sub>10</sub> (444.48). Brown transparent gum, [α]<sub>D</sub> = -5.0° (c = 0.16, MeOH). Source: E LI *Persea americana* [Syn. *Persea gratissima*] (seed), HUA NAN WU ZHU YU *Evodia austrosinensis*. Ref: 3796, 5052.

**5692 2,3-Dihydrophilonotisflavone**

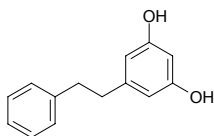
[124615-13-0] C<sub>30</sub>H<sub>20</sub>O<sub>12</sub> (572.49). Source: ZE XIAN *Philonotis fontana*. Ref: 3120.

**5693 4',4'-Dihydrophthalic anhydride**

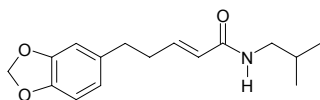
C<sub>8</sub>H<sub>6</sub>O<sub>3</sub> (150.14). Source: DANG GUI *Angelica sinensis*. Ref: 2.

**5694 Dihydropinosylvin**

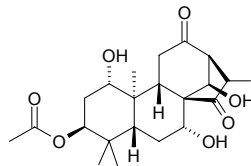
[14531-52-3] C<sub>14</sub>H<sub>14</sub>O<sub>2</sub> (214.27). Pharm: Antifungal (*Pyricularia grisea*, EC<sub>50</sub> = 44 μg/mL, EC<sub>90</sub> = 55 μg/mL; *Cladosporium herbarum*, EC<sub>50</sub> = 32 μg/mL, EC<sub>90</sub> = 209 μg/mL; *Fusarium avenaceum*, EC<sub>50</sub> = 56 μg/mL, EC<sub>90</sub> = 131 μg/mL; *Alternaria citri*, EC<sub>50</sub> = 89 μg/mL, EC<sub>90</sub> > 200 μg/mL; *Botrytis cinerea*, EC<sub>50</sub> = 69 μg/mL, EC<sub>90</sub> = 77 μg/mL)<sup>[3751]</sup>; antibacterial. Source: SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], *Stemona cf. pierrei* (underground parts), *Pinus* sp. Ref: 658, 3751.

**5695 5,6-Dihydropiperlonguminine**

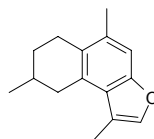
C<sub>16</sub>H<sub>21</sub>NO<sub>3</sub> (275.35). Pharm: Antifungal (*Cladosporium sphaerospermum*, MIA = 5.0 μg, control Nystatin, MIA = 0.5 μg). Source: LIU TU HU JIAO *Piper tuberculatum* (seed). Ref: 5102.

**5696 Dihydropseurata F**

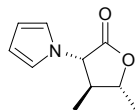
C<sub>22</sub>H<sub>32</sub>O<sub>7</sub> (408.50). mp 268–273°C. Source: CHUAN ZANG XIANG CHA CAI *Isodon pharicus*. Ref: 4067.

**5697 4,5-Dihydropyrocurzerenone**

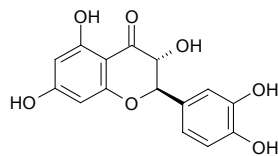
[59462-26-9] C<sub>15</sub>H<sub>18</sub>O (214.31). Crystals (pet. ether), mp 65–66°C, [α]<sub>D</sub><sup>17</sup> = -28° (c = 0.84, CHCl<sub>3</sub>). Source: JI JI *Chloranthus serratus*. Ref: 3122.

**5698 (3α,4β,5α)-4,5-Dihydro-3-(1-pyrrolyl)-4,5-dimethyl-2(3H)-furanone**

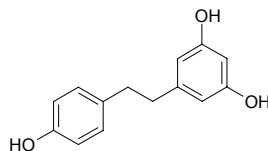
C<sub>10</sub>H<sub>13</sub>NO<sub>2</sub> (179.22). Yellowish needles. Source: GUANG JIN QIAN CAO *Desmodium styracifolium* (stem and leaf). Ref: 4907.

**5699 Dihydroquercetin**

Distylin; Taxifolin [480-18-2] C<sub>15</sub>H<sub>12</sub>O<sub>7</sub> (304.26). Yellow powder, mp 240–242°C, mp 221–222°C, [α]<sub>D</sub> = +44.1° (c = 1.0, Me<sub>2</sub>CO). Pharm: Anti-inflammatory (modulator of cytokine network: reduces IFN-γ-induced ICAM-1 protein, as well as mRNA expression in hmn keratinocytes)<sup>[4416]</sup>. Source: BA DAN XING REN *Prunus amygdalus*, BAI HUA YING SHAN HONG *Rhododendron mucronatum*, MAN SHAN HONG *Rhododendron dauricum*, YING SHAN HONG *Rhododendron mucronulatum*, XIAN HE CAO GEN *Agrimonia pilosa* var. *japonica*, HUANG LIAN YA *Pistacia chinensis*, TU FU LING *Smilax glabra*, XIAO YE HONG GUANG SHU *Knema globularia*, *Pinus maritime* (bark). Ref: 4, 6, 336, 411, 416, 2209, 4416.

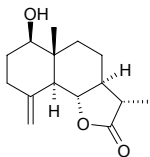
**5700 Dihydroresveratrol**

C<sub>14</sub>H<sub>14</sub>O<sub>3</sub> (230.47). Pharm: Antibacterial (*Escherichia coli* and *Staphylococcus aureus*); antifungal (*Cladosporium cladosporioides* and *Trichophyton mentagrophytes*). Source: *Morus* sp. Ref: 658.

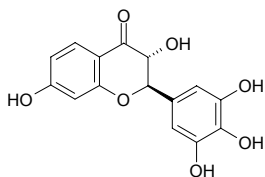


**5701 11 $\beta$ ,13-Dihydroreynosin**

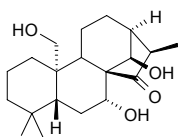
$C_{15}H_{22}O_3$  (250.34). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, CD<sub>50</sub> > 100 $\mu$ g/mL; HeLa, CD<sub>50</sub> > 100 $\mu$ g/mL; OVCAR-3, CD<sub>50</sub> = 95 $\mu$ g/mL; control Cisplatin, HepG<sub>2</sub>, CD<sub>50</sub> = 2.8 $\mu$ g/mL; HeLa, CD<sub>50</sub> = 5.2 $\mu$ g/mL; OVCAR-3, CD<sub>50</sub> = 3 $\mu$ g/mL). **Source:** MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*] (root: yield = 0.0015%dw). **Ref:** 4720.

**5702 Dihydrorobinetin**

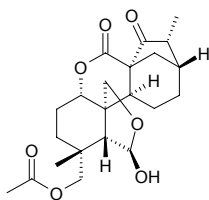
[70460-55-8]  $C_{15}H_{12}O_7$  (304.26). mp 246°C; 225~226°C. **Source:** CI HUAI HUA *Robinia pseudoacacia*. **Ref:** 6.

**5703 16,17-Dihydrorostronol F**

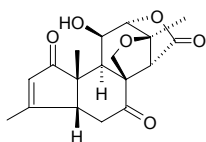
$C_{20}H_{32}O_4$  (336.48). **Pharm:** Cytotoxic inactive (hmn leukemia cell HL-60, 10 $\mu$ mol/L). **Source:** JIE XING YE TAI *Jungermannia truncata*. **Ref:** 4201.

**5704 Dihydrorugosanin**

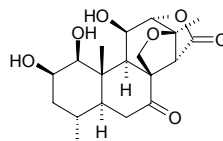
$C_{22}H_{30}O_7$  (406.48). mp 234~239°C,  $[\alpha]_D^{20} = -197.6^\circ$  ( $c = 0.21$ ,  $C_5H_5N$ ). **Source:** ZHOU YE XIANG CHA CAI *Isodon rugosus* [Syn. *Rabdiosa rugosa*]. **Ref:** 4067.

**5705 5 $\beta$ ,6-Dihydrosamaderine A**

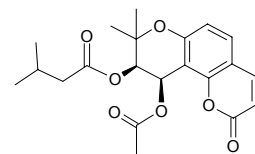
$C_{18}H_{20}O_6$  (332.36). White amorphous solid,  $[\alpha]_D = +75^\circ$  ( $c = 0.032$ ,  $CHCl_3$ ). **Source:** MA DAO HUANG LIAN SHU *Samadera madagascariensis* (leaf). **Ref:** 5334.

**5706 3,4 $\beta$ -Dihydrosamaderine C**

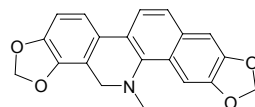
$C_{19}H_{26}O_7$  (366.41). Pale yellow amorphous solid,  $[\alpha]_D = -18^\circ$  ( $c = 0.022$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (non-small cell lung cancer NCI-H266, LC<sub>50</sub> = 20.9 $\mu$ g/mL; colon cancer HCC-2998, LC<sub>50</sub> = 26.1 $\mu$ g/mL, HCT116, LC<sub>50</sub> = 35.9 $\mu$ g/mL; HCT15, LC<sub>50</sub> = 8.55 $\mu$ g/mL; CNS cancer SF539, LC<sub>50</sub> = 21.8 $\mu$ g/mL, U251, LC<sub>50</sub> = 9.42 $\mu$ g/mL; melanoma LOX IMVI, LC<sub>50</sub> = 7.09 $\mu$ g/mL, M14, LC<sub>50</sub> = 11.0 $\mu$ g/mL, SK-MEL-5, LC<sub>50</sub> = 8.42 $\mu$ g/mL; renal cancer A498, LC<sub>50</sub> = 18.1 $\mu$ g/mL, ACHN, LC<sub>50</sub> = 10.9 $\mu$ g/mL; prostate cancer DU-145, LC<sub>50</sub> = 50.8 $\mu$ g/mL). **Source:** MA DAO HUANG LIAN SHU *Samadera madagascariensis* (leaf). **Ref:** 5334.

**5707 Dihydrosamidin**

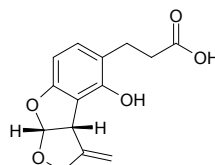
Dimidin [10182-81-7]  $C_{21}H_{24}O_7$  (388.42). mp 117~119°C (methanol),  $[\alpha]_D = +19^\circ$  ( $c = 1.0$ );  $[\alpha]_D = +63^\circ$  ( $c = 1.0$ , dioxane). **Pharm:** Anti-adrenaline; antihypercholesterolemic (rbt, inhibits rise of cholesterol and lecithin); vasodilator. **Source:** CHI A MI *Ammi visnaga*, ZHANG GUO QIN *Phlojodicarpus sibiricus*. **Ref:** 658, 661.

**5708 Dihydrosanguinarine**

[3606-45-9]  $C_{20}H_{15}NO_4$  (333.35). mp 191°C. **Pharm:** Antibacterial (antiphlogosis, using source plant XIAO HUA ZI JING, *Fumaria parviflora*); similar action with sanguinarin. **Source:** BAI QU CAI *Chelidonium majus* (whole herb: mean content of 5 origins = 0.049%)<sup>[5508]</sup>, DUI YE YUAN HU *Corydalis ledebouriana*, HUA LING CAO *Eschscholzia californica*, JU HUA HUANG LIAN *Corydalis pallida*, JU ZI JIN *Corydalis gigatea*, WEI LAN QIU GUO ZI JIN *Fumaria vaillantii*, XIAO HUA QIU GUO ZI JIN *Fumaria parviflora*, YING SU KE *Papaver somniferum*. **Ref:** 6, 658, 5508.

**5709 3,4-Dihydro-1,2-secomicrominutinin**

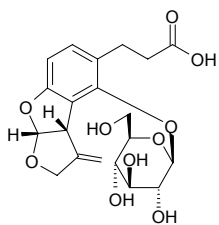
$C_{14}H_{14}O_5$  (262.26). Amorphous,  $[\alpha]_D^{26} = +6.0^\circ$  ( $c = 1.0$ , MeOH). **Source:** XIAO GAN *Micromelum falcatum*. **Ref:** 2421.



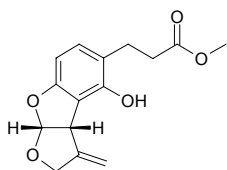


**5710 3,4-Dihydro-1,2-secomicrominin-9-O-glucoside**

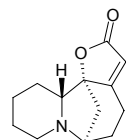
$C_{20}H_{24}O_{10}$  (424.41). Amorphous,  $[\alpha]_D^{26} = +11.5^\circ$  ( $c = 1.0$ , MeOH). Source: XIAO GAN *Micromelum falcatum*. Ref: 2421.

**5711 3,4-Dihydro-1,2-secomicrominin methyl ester**

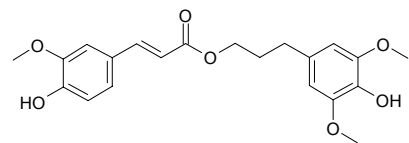
$C_{15}H_{16}O_5$  (276.29). Amorphous,  $[\alpha]_D^{26} = -3.6^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). Source: XIAO GAN *Micromelum falcatum*. Ref: 2421.

**5712 Dihydrosecurinine**

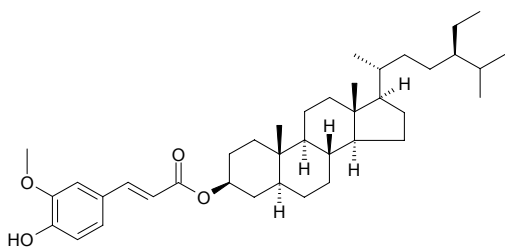
[1878-04-2]  $C_{13}H_{17}NO_2$  (219.29). mp 58~60°C. Source: YI YE QIU *Securinea suffruticosa*. Ref: 6.

**5713 Dihydrosinapyl ferulate**

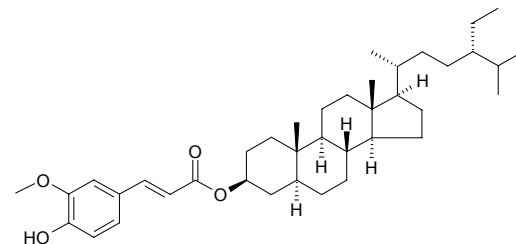
$C_{21}H_{24}O_7$  (388.42). Pale yellow semi-solid. Source: LUO TUO HAO *Peganum nigellastrum* (aerial parts). Ref: 3945.

**5714 Dihydro-β-sitosteryl ferulate**

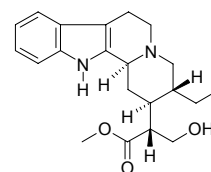
[83-45-4]  $C_{39}H_{60}O_4$  (592.91). mp 156~157°C. Source: MI PI KANG *Oryza sativa*. Ref: 6.

**5715 Dihydro-γ-sitosteryl ferulate**

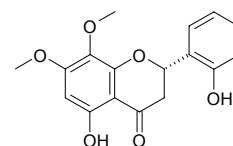
$C_{39}H_{60}O_4$  (592.91). mp 155~156°C. Source: MI PI KANG *Oryza sativa*. Ref: 6.

**5716 Dihydrositsirikine**

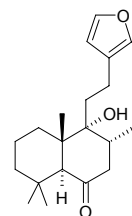
[6519-26-2]  $C_{21}H_{28}N_2O_3$  (356.47). Source: CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*]. Ref: 2.

**5717 Dihydroskullcapflavone I**

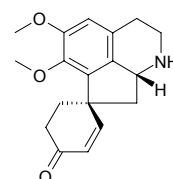
$C_{17}H_{16}O_6$  (316.31). Colorless needles ( $CHCl_3$ ), mp 151~153°C,  $[\alpha]_D^{28} = -21.7^\circ$  ( $c = 0.15$ , MeOH). Source: TIAO WEN CHUAN XIN LIAN *Andrographis lineata*. Ref: 3390.

**5718 Dihydroolidagenone**

$C_{20}H_{30}O_3$  (318.46). Source: MAN JING ZI *Vitex trifolia*. Ref: 746.

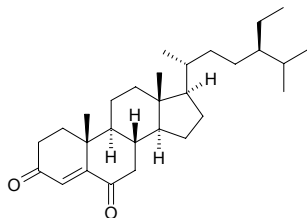
**5719 (+)-8,9-Dihydrostepharine**

$C_{18}H_{21}NO_3$  (299.37). Colorless needles (MeOH),  $[\alpha]_D = +141.4^\circ$  ( $c = 0.0055$ , MeOH). Source: HOU KE GUI *Cryptocarya chinensis* (wood). Ref: 3092.

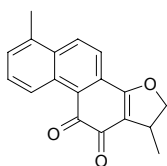


**5720 22-Dihydrostigmast-4-en-3,6-dione**

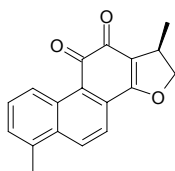
$C_{29}H_{46}O_2$  (426.69). mp 170–171°C. Source: LING *Trapa bispinosa*. Ref: 6.

**5721 15,17-Dihydrotanshinone I**

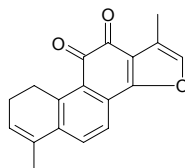
$C_{18}H_{14}O_3$  (278.31). Pharm: immunosuppressant (lymphocyte transformation assay control group concanavalin A, 5µg/mL, InRt = -28%; 20µg/mL, InRt = 28%; 80µg/mL, InRt = 49%, control Dexamethasone, 50µg/mL, InRt = 63%). Source: ZHAN LONG JIAN *Veronicastrum sibiricum* (aerial parts). Ref: 4260.

**5722 Dihydrotanshinone I**

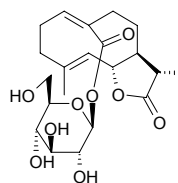
15,16-Dihydrotanshinone I  $C_{18}H_{14}O_3$  (278.31). Pharm: Antibacterial (*Staphylococcus aureus*, hmn *Mycobacterium tuberculosis* H37Rv, MIC = 1.5µg/mL); antiallergic (inhibits degranulation of mast cell RBL-2H3, dose-dependent,  $IC_{50} = (14.3 \pm 2.1) \mu\text{mol/L}$ )<sup>[4939]</sup>, MAO A inhibitor (hmn recombinant MAO A,  $IC_{50} = 23 \mu\text{mol/L}$ ); iNOS inhibitor (RAW267.4 cells, LPS-induced,  $IC_{50} = 2.4 \mu\text{mol/L}$ )<sup>[5032]</sup>; acetylcholinesterase (AChE) inhibitor ( $IC_{50} = 1.0 \mu\text{mol/L}$ , Argentin A,  $IC_{50} = 42.8 \mu\text{mol/L}$ )<sup>[4944]</sup>. Source: DAN SHEN *Salvia miltiorrhiza* (dried root: mean content = 0.079%)<sup>[5508]</sup>, GAN XI SHU WEI CAO *Salvia przewalskii* (dried root: content = 0.067%)<sup>[5508]</sup>, HONG GEN CAO *Salvia prionitis* (dried root: content = 0.067%)<sup>[5508]</sup>, HUANG HUA SHU WEI CAO *Salvia flava* (dried root: content = 0.001%)<sup>[5508]</sup>, JI YE SHU WEI CAO *Salvia bulleyana* (dried root: content = 0.002%)<sup>[5508]</sup>, LI SE SHU WEI CAO *Salvia castanea* (dried root: content = 0.031%)<sup>[5508]</sup>, MAO DI HUANG SHU WEI CAO *Salvia digitaloides* (dried root: content = 0.001%)<sup>[5508]</sup>, NAN DAN SHEN *Salvia bowleyana* (dried root: content = 0.004%)<sup>[5508]</sup>, NI DAN SHEN *Salvia sinica* (dried root: content = 0.006%)<sup>[5508]</sup>, SAN YE SHU WEI CAO *Salvia trijuga* (dried root: content = 0.031%)<sup>[5508]</sup>, YUN NAN SHU WEI CAO *Salvia yunnanensis* (dried root: content = 0.019%)<sup>[5508]</sup>, ZI DAN SHEN *Salvia przewalskii* var. *mandarinorum* (dried root: content = 0.120%)<sup>[5508]</sup>. Ref: 2, 658, 4939, 4944, 5032, 5508.

**5723 1,2-Dihydrotanshinone**

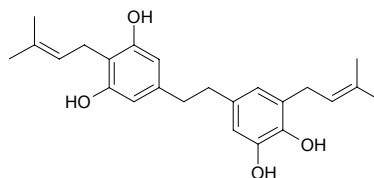
1,2-Dihydrotanshinone  $C_{18}H_{14}O_3$  (278.31). Red acicular crystals (benzene), mp 169°C. Source: DAN SHEN *Salvia miltiorrhiza*, GAN XI SHU WEI CAO *Salvia przewalskii*. Ref: 721, 4538.

**5724 11β,13-Dihydro-taraxinic acid-1'-O-β-D-glucopyranoside**

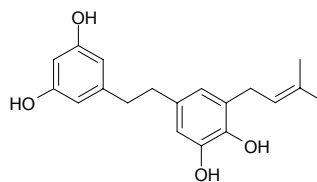
$C_{21}H_{30}O_9$  (426.47). Colorless needle crystals (EtOH–Et<sub>2</sub>O), mp 175–177°C,  $[\alpha]_D^{21} = -52.0^\circ$  (CH<sub>3</sub>OH,  $c = 0.450$ ). Source: DAO LUAN YE PU GONG YING GEN *Taraxacum obovatum*, YUAN JING HUAN YANG SHEN *Crepis napifera*. Ref: 2216, 5357.

**5725 α,α'-Dihydro-3,5,3',4'-tetrahydroxy-4,5'-diisopentenylstilbene**

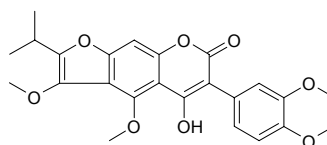
$C_{24}H_{30}O_4$  (382.5). Amorphous solid. Pharm: Antioxidant (linoleic acid solution, inhibition rate constant  $K_{inh} = 110000\text{L}/(\text{mol}\cdot\text{s})$ ). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra* (leaf: yield = 0.06%fw). Ref: 4685.

**5726 α,α'-Dihydro-3,5,3',4'-tetrahydroxy-5'-isopentenyl stilbene**

$C_{19}H_{22}O_4$  (314.38). Yellow oil. Pharm: Antioxidant (linoleic acid solution, inhibition rate constant  $K_{inh} = 90000\text{L}/(\text{mol}\cdot\text{s})$ ). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra* (leaf: yield = 0.25%fw). Ref: 4685.

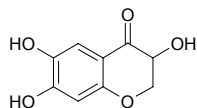
**5727 3'',4''-DihydrothoningineC**

$C_{24}H_{24}O_8$  (440.45). Colorless oil. Source: *Milletia thonningii*. Ref: 2326.

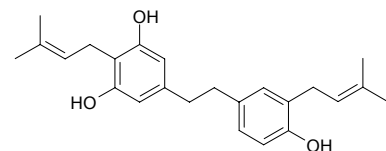


**5728 2,3-Dihydro-3,6,7-trihydroxy-1-H-benzo[b]pyran-4-one**

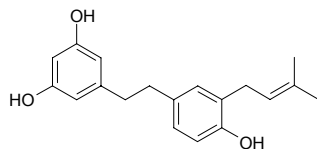
$C_9H_8O_5$  (196.16). Yellow powder,  $[\alpha]_D^{23} = -8.0^\circ$  ( $c = 0.50$ , MeOH). Source: HUA TAO SHU *Trewin nudiflora* (seed crust). Ref: 4894.

**5729  $\alpha,\alpha'$ -Dihydro-3,5,4'-trihydroxy-4,5'-diisopentenylstilbene**

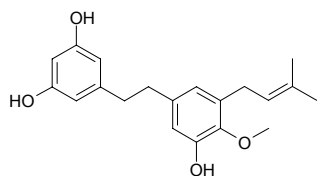
$C_{24}H_{30}O_3$  (366.5). Orange-yellow oil. Pharm: Antioxidant (linoleic acid solution, inhibition rate constant  $K_{inh} = 70000L/(mol \cdot s)$ ). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra* (leaf: yield = 0.16%fw). Ref: 4685.

**5730  $\alpha,\alpha'$ -Dihydro-3,5,4'-trihydroxy-5'-isopentenylstilbene**

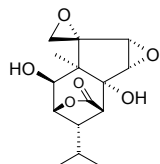
$C_{19}H_{22}O_3$  (298.39). Amorphous solid. Pharm: Antioxidant (linoleic acid solution, inhibition rate constant  $K_{inh} = 60000L/(mol \cdot s)$ ). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra* (leaf: yield = 0.08%fw). Ref: 4685.

**5731  $\alpha,\alpha'$ -Dihydro-3,5,3'-trihydroxy-4'-methoxy-5'-isopentenylstilbene**

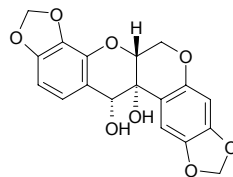
$C_{20}H_{24}O_4$  (328.41). Colorless oil. Pharm: Antioxidant (linoleic acid solution, inhibition rate constant  $K_{inh} = 80000L/(mol \cdot s)$ ). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra* (leaf: yield = 0.35%fw). Ref: 4685.

**5732 Dihydrotutin**

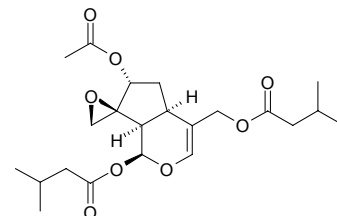
$C_{15}H_{20}O_6$  (296.32). Source: RI BEN MA SANG *Coriaria japonica* (seed). Ref: 4497.

**5733 12-Dihydrousarotenoid A**

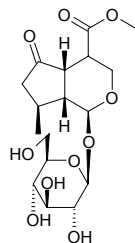
$C_{18}H_{14}O_8$  (358.31). Pharm: Antimalarial inactive (antiplasmodial, chloroquine-resistant W2 strain of *Plasmodium falciparum*,  $IC_{50} > 100\mu mol/L$ , control Chloroquine,  $IC_{50} = 0.094\mu mol/L$ , control Quinine,  $IC_{50} = 0.209\mu mol/L$ ; chloroquine-sensitive D6 strain of *Plasmodium falciparum*,  $IC_{50} > 100\mu mol/L$ , control Chloroquine,  $IC_{50} = 0.009\mu mol/L$ , control Quinine,  $IC_{50} = 0.044\mu mol/L$ ). Source: *Milletia usaramensis* ssp. *usaramensis*. Ref: 3454.

**5734 Dihydrovalepotriate**

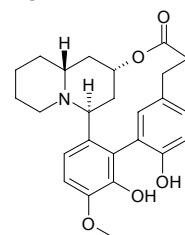
$C_{22}H_{32}O_8$  (424.50). mp 62–63°C. Source: ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*]. Ref: 6.

**5735 3,4-Dihydroverbenalin**

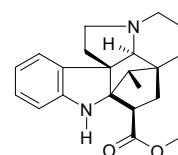
$C_{17}H_{26}O_{10}$  (390.39). Amorphous powder (CH<sub>3</sub>OH), mp 209–211°C. Source: MA BIAN CAO *Verbena officinalis*. Ref: 787.

**5736 Dihydroverticillatine**

[10215-02-8]  $C_{25}H_{29}NO_5$  (423.51). mp 258–259°C. Source: ZI WEI YE *Lagerstroemia indica*. Ref: 6.

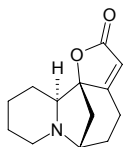
**5737 Dihydrovindolinine**

[17172-16-6]  $C_{21}H_{26}N_2O_2$  (338.45). Source: CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*]. Ref: 2.

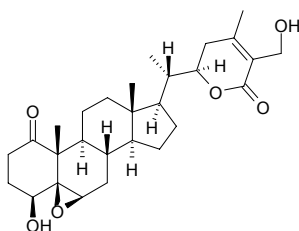


**5738 14,15-Dihydrovirosecurinine**

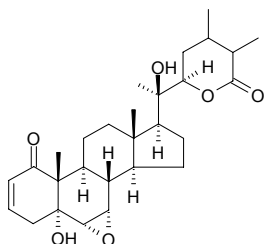
$C_{13}H_{17}NO_2$  (219.29). Yellow oil,  $[\alpha]_D^{20} = +280^\circ$  ( $c = 0.1$ , EtOH). Source: YI YE QIU *Securinega suffruticosa* (branch leaf). Ref: 4818.

**5739 2,3-Dihydrowithaferin A**

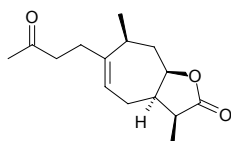
$C_{28}H_{40}O_6$  (472.63). Pharm: Acetylcholinesterase (AChE) inhibitor ( $IC_{50} = (500 \pm 3) \mu\text{mol/L}$ , control Galanthamine  $IC_{50} = (8.2 \pm 0.0) \mu\text{mol/L}$ , Eserine  $IC_{50} = (0.85 \pm 0.00) \mu\text{mol/L}$ ); BChE inhibitor inactive. Source: CUI MIAN SHUI QIE *Withania somnifera*. Ref: 2563.

**5740 24,25-Dihydrowithanolide A**

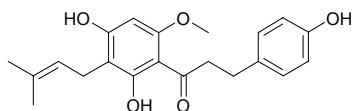
$C_{28}H_{40}O_6$  (472.63). Source: CUI MIAN SHUI QIE *Withania somnifera* (leaf). Ref: 5329.

**5741 11 $\alpha$ ,13-Dihydroxanthalongin**

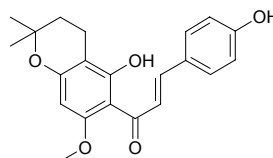
$C_{15}H_{22}O_3$  (250.34). Source: JIN FEI CAO *Inula japonica*. Ref: 5422.

**5742 Dihydroxanthohumol**

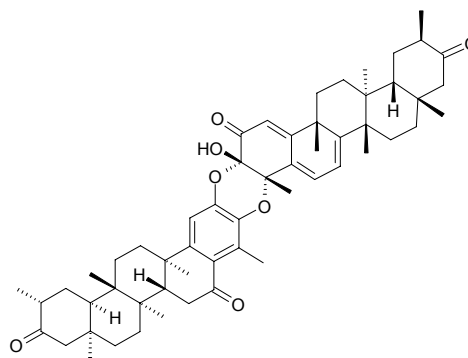
$\alpha,\beta$ -Dihydroxanthohumol  $C_{21}H_{24}O_5$  (356.42). Pharm: Anti-inflammatory (NO production inhibitor, *in vitro*, macrophage RAW264.7 cells, induced by LPS/IFN- $\gamma$ ,  $IC_{50} = 23 \mu\text{mol/L}$ , without showing cytotoxicity at concentrations lower than  $10 \mu\text{mol/L}$ , cell viability > 95%)<sup>[4795]</sup>. Source: PI JIU HUA *Humulus lupulus* (strobile). Ref: 4789, 4795.

**5743 1'',2''-Dihydroxanthohumol C**

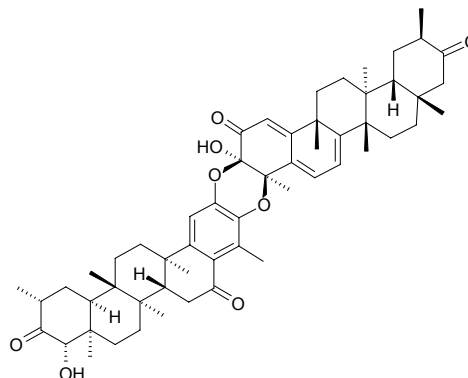
(2*E*)-1-(3,4-Dihydro-5-hydroxy-7-methoxy-2,2-dimethyl-2*H*-1-benzopyran-6-yl)-3-(4-hydroxyphenyl)-2-propen-1-one  $C_{21}H_{22}O_5$  (354.41). Orange solid. Source: PI JIU HUA *Humulus lupulus* (strobile). Ref: 4789.

**5744 7',8'-Dihydroxuarine A $\alpha$** 

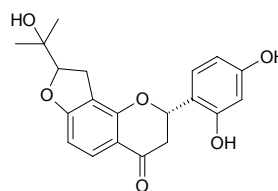
$C_{56}H_{72}O_7$  (857.19). Yellow amorphous solid. Source: QIU SHI MEI DENG MU *Maytenus chuchuhuasca* (bark). Ref: 4295.

**5745 7',8'-Dihydroxuarine D $\beta$** 

$C_{56}H_{72}O_8$  (873.19). Yellow amorphous solid. Source: QIU SHI MEI DENG MU *Maytenus chuchuhuasca* (bark). Ref: 4295.

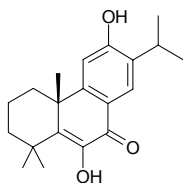
**5746 (2*S*)-2',4'-Dihydroxy-2''-(1-hydroxy-1-methylethyl)dihydrofuro [2,3-*h*]-flavanone**

$C_{20}H_{20}O_6$  (356.38). Yellow powder. Pharm: Cytotoxic (aromatase inhibitor, a promising lead as potential cancer chemopreventive agents)<sup>[5038]</sup>; aromatase inhibitor (*in vitro*,  $IC_{50} = 0.1 \mu\text{mol/L}$ ; control Aminoglutethimide,  $IC_{50} = 6.4 \mu\text{mol/L}$ )<sup>[3090]</sup>. Source: GOU SHU *Broussonetia papyrifera*. Ref: 3090, 5038.

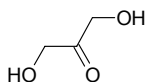


**5747 6,12-Dihydroxy-5,8,11,13-abietetraen-7-one**

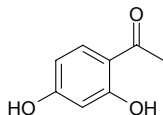
6,12-Dihydroxyabieta-5,8,11,13-tetraen-7-one [140923-35-9] C<sub>20</sub>H<sub>26</sub>O<sub>3</sub> (314.43). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -9.0° (c = 1.0, CHCl<sub>3</sub>). **Pharm:** Antibacterial (*Staphylococcus aureus*, MIC = 7.8 μg/mL (MCC > 250 μg/mL), control Tetracycline, MIC = 1.56 μg/mL; *Bacillus subtilis*, MIC > 250 μg/mL, Tetracycline, MIC = 1.56 μg/mL; *Enterococcus faecalis*, MIC = 7.8 μg/mL (MCC > 250 μg/mL), Tetracycline, MIC = 1.56 μg/mL; *Listeria monocytogenes*, MIC = 7.8 μg/mL (MCC > 250 μg/mL), Tetracycline, MIC < 0.39 μg/mL; *Salmonella enteritidis*, MIC > 250 μg/mL, Tetracycline, MIC = 1.56 μg/mL; *Escherichia coli*, MIC > 250 μg/mL, Tetracycline, MIC = 1.56 μg/mL; *Shigella sonnei*, MIC > 250 μg/mL, Tetracycline, MIC = 6.25 μg/mL)<sup>[5401]</sup>; antifungal (*Candida albicans*, MIC > 250 μg/mL, Miconazole, MIC = 8 μg/mL; *Candida krusei*, MIC > 250 μg/mL, Miconazole, MIC = 2 μg/mL)<sup>[5401]</sup>. **Source:** CHANG GENG CU FEI *Cephalotaxus harringtonia* var. *drupacea*, DU SONG SHI *Juniperus rigida*. **Ref:** 6, 5401.

**5748 Dihydroxyacetone**

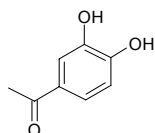
[96-26-4] C<sub>3</sub>H<sub>6</sub>O<sub>3</sub> (90.08). **Source:** CU vinegar. **Ref:** 6.

**5749 2',4'-Dihydroxyacetophenone**

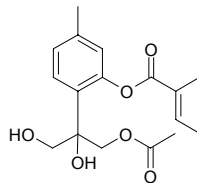
[89-84-9] C<sub>8</sub>H<sub>8</sub>O<sub>3</sub> (152.15). **Source:** DANG GUI *Angelica sinensis*. **Ref:** 2.

**5750 3',4'-Dihydroxyacetophenone**

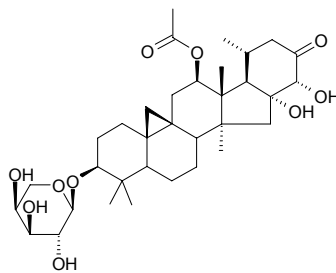
[1197-09-7] C<sub>8</sub>H<sub>8</sub>O<sub>3</sub> (152.14). White tiny cluster acicular crystals, mp 119–121°C. **Pharm:** Platelet aggregation inhibitor (induced by ADP, 0.5 mg/mL); CVS activity (anesthetic dog iv, 40 mg/kg, increases coronary flow, reduces consumption of oxygen in myocardium, increases cerebral blood flow, lowers blood pressure, and slows heart rate); inhibits vasomotion (induced by KCl, 1.0 mg/kg); anti-inflammatory inactive (no significant inhibitory effects on mast cells and neutrophils stimulated with various inducers; no significant inhibitory effects on TNF- $\alpha$  formation from RAW264.7 stimulated with LPS and N9 microglial cells stimulated with LPS/INF- $\gamma$ )<sup>[3054]</sup>. **Source:** BAI WEI *Cynanchum atratum* (root)<sup>[3054]</sup>, JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*], TU MAO DONG QING *Ilex pubescens* var. *glaber*. **Ref:** 661, 3054.

**5751 8,10-Dihydroxy-9-acetoxythymol 3-O-tiglate**

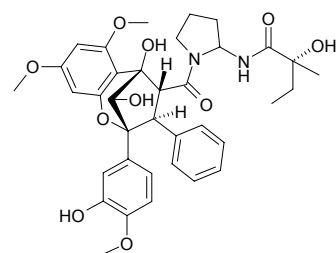
C<sub>17</sub>H<sub>22</sub>O<sub>6</sub> (322.36). [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -1.6° (c = 1.5, CHCl<sub>3</sub>). **Source:** PEI LAN *Eupatorium fortunei* (aerial parts). **Ref:** 3077.

**5752 16 $\alpha$ ,24 $\alpha$ -Dihydroxy-12 $\beta$ -acetoxy-25,26,27-trinor-16,24-cycloartan-23-one 3 $\beta$ -O- $\alpha$ -L-arabinopyranoside**

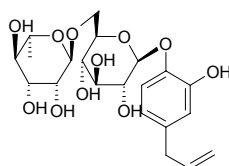
C<sub>34</sub>H<sub>52</sub>O<sub>10</sub> (620.79). White powder (MeOH), mp 257–259°C, [ $\alpha$ ]<sub>D</sub> = -102.1° (c = 0.18, MeOH). **Source:** XING AN SHENG MA *Cimicifuga dahurica* (rhizome). **Ref:** 4140.

**5753 3',19-Dihydroxyaglaine C**

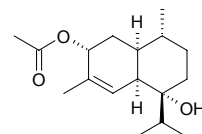
C<sub>36</sub>H<sub>42</sub>N<sub>2</sub>O<sub>10</sub> (662.74). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -103.4° (c = 0.43, CHCl<sub>3</sub>). **Source:** MI ZI LAN *Aglaia odorata*. **Ref:** 2289.

**5754 3,4-Dihydroxyallylbenzene 4-O-[ $\alpha$ -L-rhamnopyranosyl-(1→6)]- $\beta$ -D-glucopyranoside**

C<sub>21</sub>H<sub>30</sub>O<sub>11</sub> (458.47). White amorphous powder. **Source:** JIAN YE LONG XUE SHU *Dracaena cochinchinensis*. **Ref:** 832.

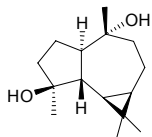
**5755 3 $\alpha$ ,7 $\alpha$ -Dihydroxy amorph-4-ene 3-acetate**

C<sub>17</sub>H<sub>28</sub>O<sub>3</sub> (280.41). Colorless oil, [ $\alpha$ ]<sub>D</sub> = -9.4° (c = 0.1, CHCl<sub>3</sub>). **Source:** HUANG HUA HAO *Artemisia annua* (seed). **Ref:** 3435.

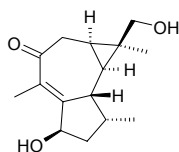


**5756 4 $\beta$ ,10 $\alpha$ -Dihydroxyaromadendrane**

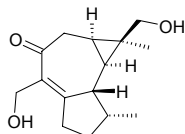
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Source: JU DA MI ZI LAN *Aglaia grandis* (leaf). Ref: 3947.

**5757 2 $\beta$ ,13-Dihydroxyaromadendr-1(10)-en-9-one**

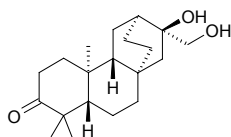
C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). Needles (acetone), mp 145~146°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -128° (*c* = 0.6, CHCl<sub>3</sub>). Pharm: Insecticidal (adult *Cylas formicarius elegantulus*, 0.04mg/insect, 24h mortality = 10%, 48h mortality = 20%, 72h mortality = 70%)<sup>[5140]</sup>. Source: *Curvularia lunata*. Ref: 5140.

**5758 13,14-Dihydroxyaromadendr-1(10)-en-9-one**

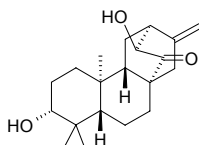
C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). Oil, [ $\alpha$ ]<sub>D</sub> = -160° (*c* = 1.0, CHCl<sub>3</sub>). Pharm: Insecticidal (adult *Cylas formicarius elegantulus*, 0.04mg/insect, 24h mortality = 10%, 48h mortality = 40%, 72h mortality = 80%)<sup>[5140]</sup>. Source: *Curvularia lunata*. Ref: 5140.

**5759 ent-16 $\alpha$ ,17-Dihydroxyatisan-3-one**

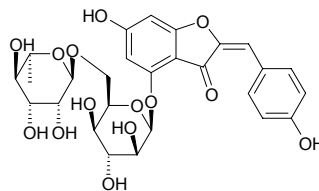
C<sub>20</sub>H<sub>32</sub>O<sub>3</sub> (320.48). Colorless needles. Source: DA GUO DA JI *Euphorbia wallichii* (root). Ref: 4585.

**5760 ent-3 $\beta$ , (13S)-Dihydroxyatis-16-en-14-one**

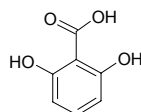
C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). White powder. Source: DA GUO DA JI *Euphorbia wallichii* (root). Ref: 4585.

**5761 6,4'-Dihydroxy aurone 4-O-rutinoside**

C<sub>27</sub>H<sub>30</sub>O<sub>14</sub> (578.53). mp 228°C. Source: SI ZI TAN *Pterocarpus santalinus* (wood). Ref: 3889.

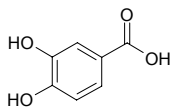
**5762 2,6-Dihydroxybenzoic acid**

C<sub>7</sub>H<sub>6</sub>O<sub>4</sub> (154.12). Source: HU ZHANG *Polygonum cuspidatum*. Ref: 4186.

**5763 3,4-Dihydroxybenzoic acid**

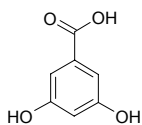
Protocatechuic acid [99-50-3] C<sub>7</sub>H<sub>6</sub>O<sub>4</sub> (154.12). mp 199~200°C, 195~196°C. Pharm: DPPH scavenger (SC<sub>50</sub> = 11μmol/L)<sup>[4247]</sup>; antioxidant (*in vitro*, DPPH scavenger, 0.1mg/mL, ScRt = 86.5%)<sup>[3015]</sup>; antioxidant (superoxide anion radical scavenger, superoxide dismutase method, IC<sub>50</sub> for Formazan formation activity = 7.2μmol/L)<sup>[4247]</sup>; prostaglandin synthetase activator; antiasthmatic (gpg, asthma induced by histamine); antibacterial (*Staphylococcus albus*, *Staphylococcus aureus*, *Diplococcus pneumoniae*,  $\alpha$ -*Streptococcus*, *Bacillus coli*, *Bacillus pyocyaneus*, *Bacillus proteus* and *Hemophilus influenzae*); antifungal (ash fungi); antihepatotoxin; anti-inflammatory; anti-venom; antitussive (dispels phlegm, mus, orl, 4.86mg); reduces consumption of oxygen in myocardium; LD<sub>50</sub> (mus, ip) = 896.4mg/kg. Source: AI NA XIANG *Blumea balsamifera* (leaf and twig: mean content = 0.0077%)<sup>[5508]</sup>, BAI YE TENG *Cryptolepis sinensis*, BAN XIA *Pinellia ternata*, CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*], DAN SHEN *Salvia miltiorrhiza* (dried root: content = 0.047%)<sup>[5508]</sup>, DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield = 0.0056%dw)<sup>[4767]</sup>, GAN XI SHU WEI CAO *Salvia przewalskii* (dried root: content = 0.340%)<sup>[5508]</sup>, GE YE MI HOU TAO *Actinidia rubricaulis* var. *coriacea* (ripe fruit: content = 0.34%)<sup>[5508]</sup>, GUI ZHI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*] (twig: content scope of 41 origins = 0.0015%~0.0164%, mean content = 0.0069%)<sup>[5508]</sup>, HONG GEN CAO *Salvia prionitis* (dried root: content = 0.038%)<sup>[5508]</sup>, HONG PI YUN SHAN *Picea koraiensis*, HU HUANG LIAN *Picrorhiza kurroa*, HU ZHANG *Polygonum cuspidatum*, HUA NAN MI HOU TAO *Actinidia glaucophylla* (ripe fruit: content = 0.40%)<sup>[5508]</sup>, HUANG HUA SHU WEI CAO *Salvia flava* (dried root: content = 0.464%)<sup>[5508]</sup>, JI YE SHU WEI CAO *Salvia bulleyana* (dried root: content = 0.296%)<sup>[5508]</sup>, JIN HUA MI HOU TAO *Actinidia chrysantha* (ripe fruit: content = 0.17%)<sup>[5508]</sup>, JIN MAO GOU *Cibotium barometz* [Syn. *Polypodium barometz*] (rhizome: mean content of 4 origins = 0.0284%)<sup>[5508]</sup>, JING LI MI HOU TAO *Actinidia callosa* var. *henryi* (ripe fruit: content = 0.32%)<sup>[5508]</sup>, JU AN *Eucalyptus grandis*, KUO YE MI HOU TAO *Actinidia latifolia* (ripe fruit: content = 0.18%)<sup>[5508]</sup>, LAN YU BAI JI *Bletilla formosana* (whole herb), LI SE SHU WEI CAO *Salvia castanea* (dried root: content = 0.336%)<sup>[5508]</sup>, LI ZHI CAO *Salvia plebeia*, LU SHAN SHI WEI *Pyrrhosia sheareri*, LU XIAN CAO

*Pyrola calliantha* [Syn. *Pyrola rotundifolia* ssp. *chinensis*], MANG QI GU *Dicranopteris pedata* [Syn. *Polypodium pedatum*; *Dicranopteris dichotoma*], MAO DI HUANG SHU WEI CAO *Salvia digitaloides* (dried root: content = 0.140%)<sup>[5508]</sup>, MAO HUA MI HOU TAO *Actinidia eriantha* (ripe fruit: content = 0.14%)<sup>[5508]</sup>, MEI WEI MI HOU TAO *Actinidia deliciosa* (ripe fruit: content = 0.16%)<sup>[5508]</sup>, MI HOU LI *Actinidia arguta* (ripe fruit: content = 0.26%)<sup>[5508]</sup>, MI HOU TAO *Actinidia chinensis* (ripe fruit: content = 0.11%)<sup>[5508]</sup>, MU TIAN LIAO *Actinidia polygama* (ripe fruit: content = 0.31%)<sup>[5508]</sup>, MU ZEI MA HUANG *Ephedra equisetina*, NAN DAN SHEN *Salvia bowleyana* (dried root: content = 0.217%)<sup>[5508]</sup>, NAN FANG OU SHI *Erica australis*, NI DAN SHEN *Salvia sinica* (dried root: content = 0.088%)<sup>[5508]</sup>, PU HUANG *Typha angustata*, QUAN CHI QIANG WEI *Rosa canina*, SAN YE SHU WEI CAO *Salvia trijuga* (dried root: content = 0.147%)<sup>[5508]</sup>, SANG HUANG *Phellinus igniarius* (sporocarp: yield = 0.0008%dw)<sup>[4747]</sup>, SI JI QING *Ilex chinensis* [Syn. *Ilex purpurea*], XIAN REN ZHANG *Opuntia dillenii* (fresh stem: yield = 0.00041%), XIU MAO JI SHENG *Taxillus levinei*, XUAN FU HUA *Inula britannica*, YUN NAN SHU WEI CAO *Salvia yunnanensis* (dried root: content = 0.059%)<sup>[5508]</sup>, ZANG HONG HUA *Crocus sativus* (petal: yield = 0.00016%), ZI HUA JING TIAN *Hylotelephium mingjinianum*, ZONG LV PI *Trachycarpus fortunei* (petiole and fibre of sheath, roasted petiole: mean content of 5 origins = 0.033%)<sup>[5508]</sup>, occurs in many plants (various higher plants: e.g. *Fagopyrum* spp. and *Alnus* spp. etc). Ref: 2, 4, 6, 308, 527, 559, 658, 660, 1521, 3015, 4247, 4500, 4747, 4767, 5501, 5508.



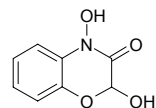
**5764 3,5-Dihydroxybenzoic acid**

[99-10-5] C<sub>7</sub>H<sub>6</sub>O<sub>4</sub> (154.12). Light-yellow crystals, mp 232–233°C, mp 176–178°C. Source: SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*] (fruit: yield = 0.0028%dw)<sup>[9]</sup>, ZE QI *Euphorbia helioscopia*. Ref: 6, 9.



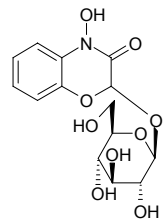
**5765 2,4-Dihydroxy-1,4-benzoxazin-3-one**

C<sub>8</sub>H<sub>7</sub>NO<sub>4</sub> (181.15). Source: LAO SHU LE *Acanthus ilicifolius*. Ref: 2080.



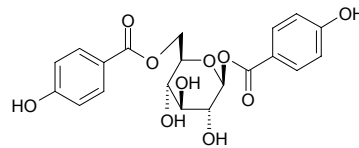
**5766 2,4-Dihydroxy-1,4-benzoxazin-3-one-2-O-beta-D-glucopyranoside**

C<sub>14</sub>H<sub>17</sub>NO<sub>9</sub> (343.29). Source: LAO SHU LE *Acanthus ilicifolius*. Ref: 2080.



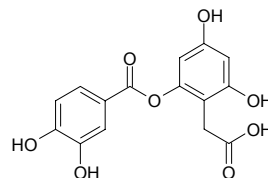
**5767 1,6-Di-O-p-hydroxybenzoyl-beta-D-glucopyranoside**

C<sub>20</sub>H<sub>20</sub>O<sub>10</sub> (420.38). Source: ZI YE *Catalpa ovata* (fallen leaf). Ref: 4290.



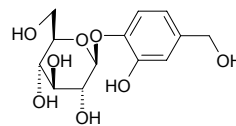
**5768 2-O-(3,4-Dihydroxybenzoyl)-2,4,6-trihydroxyphenylacetic acid**

C<sub>15</sub>H<sub>12</sub>O<sub>8</sub> (320.26). Solid. Source: LI CHUN HUA *Papaver commutatum* [Syn. *Papaver rhoeas*] (petal). Ref: 4965.



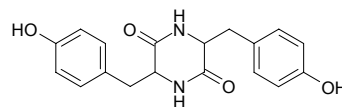
**5769 3,4-Dihydroxybenzyl alcohol-4-glucoside**

C<sub>13</sub>H<sub>18</sub>O<sub>8</sub> (302.28). Source: YE LI ZHI YE *Pyrus calleryana*. Ref: 6.



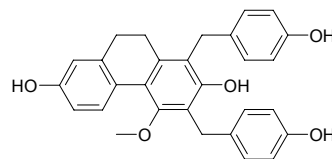
**5770 3,6-Di(4-hydroxy)benzyl-2,5-dioxopiperazine**

C<sub>18</sub>H<sub>18</sub>N<sub>2</sub>O<sub>4</sub> (326.36). Source: DONG CHONG XIA CAO *Cordyceps sinensis* (whole herb). Ref: 4462.



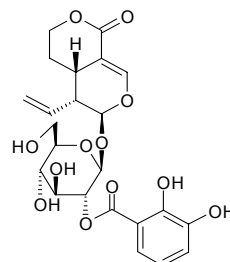
**5771 1,3-Di(4-hydroxybenzyl)-4-methoxy-9,10-dihydrophenanthrene-2,7-diol**

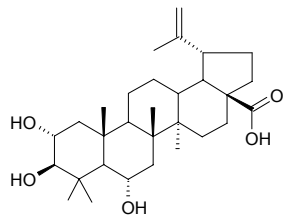
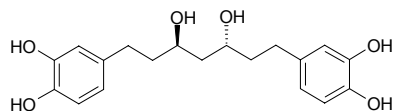
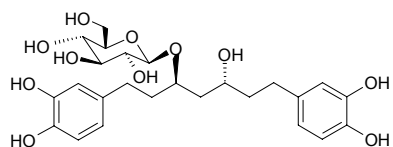
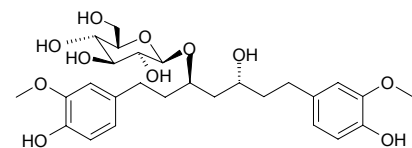
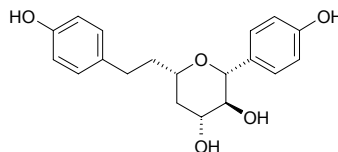
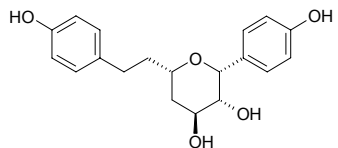
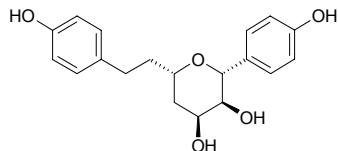
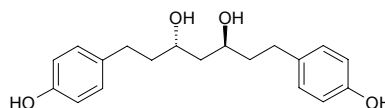
C<sub>29</sub>H<sub>26</sub>O<sub>5</sub> (454.53). Source: LAN YU BAI JI *Bleilla formosana* (whole herb). Ref: 4500.



**5772 2'-(o,m-Dihydroxybenzyl) sweroside**

[201598-65-4] C<sub>23</sub>H<sub>26</sub>O<sub>12</sub> (494.46). Yellow amorphous powder, mp 101–103°C, [α]<sub>D</sub><sup>20</sup> = –86° (c = 6.349, MeOH). Source: BAI HUA LONG DAN *Gentiana algida*. Ref: 704.

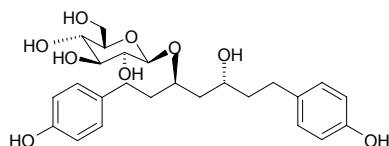


**5773 2 $\alpha$ ,6 $\alpha$ -Dihydroxybetulinic acid**C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). Colorless amorphous solid, mp 223~225°C (MeOH).Source: *Leandra chaetodon* (whole herb). Ref: 5411.**5774 (3R,5R)-3,5-Dihydroxy-1,7-bis-(3,4-dihydroxyphenyl)heptane**C<sub>19</sub>H<sub>24</sub>O<sub>6</sub> (348.4). Viscous syrup,  $[\alpha]_D^{23} = +4.0^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (*in vitro*, HL-60, IC<sub>50</sub> = 1.8 $\mu$ g/mL; HSC-2, IC<sub>50</sub> = 54 $\mu$ g/mL; HGF, IC<sub>50</sub> > 250 $\mu$ g/mL; control Etoposide: HL-60, IC<sub>50</sub> = 0.2 $\mu$ g/mL; HSC-2, IC<sub>50</sub> = 24 $\mu$ g/mL; HGF, IC<sub>50</sub> > 200 $\mu$ g/mL). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.02%dw). Ref: 4609.**5775 (3R,5R)-3,5-Dihydroxy-1,7-bis(3,4-dihydroxyphenyl)heptane 3-O- $\beta$ -D-glucopyranoside**C<sub>25</sub>H<sub>34</sub>O<sub>11</sub> (510.54). Amorphous solid,  $[\alpha]_D^{23} = -8.0^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (*in vitro*, HL-60, IC<sub>50</sub> = 3 $\mu$ g/mL; HSC-2, IC<sub>50</sub> = 92 $\mu$ g/mL; HGF, IC<sub>50</sub> = 189 $\mu$ g/mL; control Etoposide: HL-60, IC<sub>50</sub> = 0.2 $\mu$ g/mL; HSC-2, IC<sub>50</sub> = 24 $\mu$ g/mL; HGF, IC<sub>50</sub> > 200 $\mu$ g/mL). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.0022%dw). Ref: 4609.**5776 (3R,5R)-3,5-Dihydroxy-1,7-bis(4-hydroxy-3-methoxyphenyl)heptane 3-O- $\beta$ -D-glucopyranoside**C<sub>27</sub>H<sub>38</sub>O<sub>11</sub> (538.6). Amorphous solid,  $[\alpha]_D^{23} = -18.0^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (*in vitro*, HL-60, IC<sub>50</sub> > 10 $\mu$ g/mL; HSC-2, IC<sub>50</sub> = 198 $\mu$ g/mL; HGF, IC<sub>50</sub> > 250 $\mu$ g/mL; control Etoposide: HL-60, IC<sub>50</sub> = 0.2 $\mu$ g/mL; HSC-2, IC<sub>50</sub> = 24 $\mu$ g/mL; HGF, IC<sub>50</sub> > 200 $\mu$ g/mL). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.00072%dw). Ref: 4609.**5777 (3S,5R,6S,7R)-5,6-Dihydroxy-1,7-bis(4-hydroxyphenyl)-de-O-methylcentrolbine**C<sub>19</sub>H<sub>22</sub>O<sub>5</sub> (330.38). Yellow amorphous solid. Pharm: Cytotoxic (mixture with (3S,5S,6R,7R)-5,6-Dihydroxy-1,7-bis(4-hydroxyphenyl)-de-O-methylcentrolbine: Colon26-L5, ED<sub>50</sub> = 49.4 $\mu$ mol/L, control 5-FU, ED<sub>50</sub> = 0.53 $\mu$ mol/L; HT1080, ED<sub>50</sub> = 83.7 $\mu$ mol/L, 5-FU, ED<sub>50</sub> = 8.0 $\mu$ mol/L). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed). Ref: 3048.**5778 (3S,5S,6R,7R)-5,6-Dihydroxy-1,7-bis(4-hydroxyphenyl)-de-O-methylcentrolbine**C<sub>19</sub>H<sub>22</sub>O<sub>5</sub> (330.38). Yellow amorphous solid. Pharm: Cytotoxic (mixture with (3S,5R,6S,7R)-5,6-Dihydroxy-1,7-bis(4-hydroxyphenyl)-de-O-methylcentrolbine: Colon26-L5, ED<sub>50</sub> = 49.4 $\mu$ mol/L, control 5-FU, ED<sub>50</sub> = 0.53 $\mu$ mol/L; HT1080, ED<sub>50</sub> = 83.7 $\mu$ mol/L, 5-FU, ED<sub>50</sub> = 8.0 $\mu$ mol/L). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed). Ref: 3048.**5779 (3S,5S,6S,7R)-5,6-Dihydroxy-1,7-bis(4-hydroxyphenyl)-4''-de-O-methylcentrolbine**C<sub>19</sub>H<sub>22</sub>O<sub>5</sub> (330.38). Yellow amorphous solid,  $[\alpha]_D^{25} = +28.5^\circ$  ( $c = 0.040$ , MeOH). Pharm: Cytotoxic (Colon26-L5, ED<sub>50</sub> = 44.2 $\mu$ mol/L, control 5-FU, ED<sub>50</sub> = 0.53 $\mu$ mol/L; HT1080, ED<sub>50</sub> > 100 $\mu$ mol/L, 5-FU, ED<sub>50</sub> = 8.0 $\mu$ mol/L). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00025%dw). Ref: 3048.**5780 (3S,5S)-3,5-Dihydroxy-1,7-bis(4-hydroxyphenyl)heptane**C<sub>19</sub>H<sub>24</sub>O<sub>4</sub> (316.4). Pharm: Cytotoxic (Colon26-L5, ED<sub>50</sub> = 12.8 $\mu$ mol/L; HT1080, ED<sub>50</sub> = 94.4 $\mu$ mol/L). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00174%). Ref: 3042.

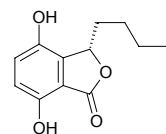


**5781 (3R,5R)-3,5-Dihydroxy-1,7-bis(4-hydroxyphenyl)heptane 3-O-β-D-glucopyranoside**

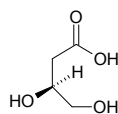
$C_{25}H_{34}O_9$  (478.54). Amorphous solid,  $[\alpha]_D^{23} = -8.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HL-60,  $IC_{50} > 10\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 157\mu\text{g/mL}$ ; HGF,  $IC_{50} = 213\mu\text{g/mL}$ ; control Etoposide: HL-60,  $IC_{50} = 0.2\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 24\mu\text{g/mL}$ ; HGF,  $IC_{50} > 200\mu\text{g/mL}$ ). **Source:** JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.0026%dw). **Ref:** 4609.

**5782 4,7-Dihydroxy-3-butylphthalide**

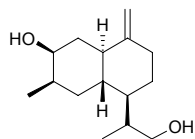
$C_{12}H_{14}O_4$  (222.24). White plate crystals, mp  $211^\circ\text{C}$ . **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. **Ref:** 2156.

**5783 (3S),4-Dihydroxybutyric acid**

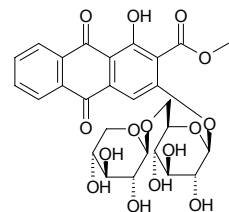
$C_4H_8O_4$  (120.11). Colorless oil,  $[\alpha]_D^{25} = -12.3^\circ$  ( $c = 0.02$ ,  $H_2O$ ). **Pharm:** Tyrosinase inhibitor inactive (*in vitro*). **Source:** ZANG HONG HUA *Crocus sativus* (petal: yield = 0.0023%). **Ref:** 3015.

**5784 (4R)-3β,14-Dihydroxycadin-10(15)-ene**

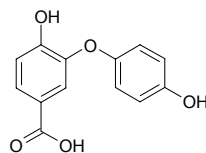
$C_{15}H_{26}O_2$  (238.37). Gum. **Pharm:** Insecticidal (adult *Cylas formicarius elegantulus*, 0.27mg/insect, 24h, mortality = 85%, 48h mortality = 100%, control Farnesyl methyl ether, 0.27mg/insect, 24h, mortality = 85%, 48h mortality = 100%). **Source:** BAI JIANG JUN *Beauveria bassiana*. **Ref:** 3949.

**5785 1,3-Dihydroxy-2-carbomethoxy-9,10-anthraquinone 3-O-β-primeveroside**

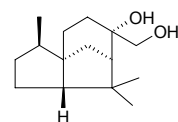
$C_{27}H_{28}O_{15}$  (592.52). Yellow powder,  $[\alpha]_D^{24} = -184.9^\circ$  ( $c = 0.08$ , MeOH). **Source:** MA LAI BAN DAO RAN MU SHU *Saprosma scortechinii* (stem and leaf). **Ref:** 4219.

**5786 2,4'-Dihydroxy-5-carboxy-dibenzyl ether**

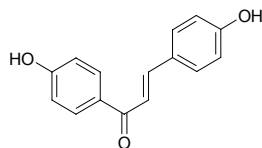
$C_{13}H_{10}O_5$  (246.22). **Source:** MAO GUO QI *Acer nikoense* (stem cortex). **Ref:** 4304.

**5787 3α,15-Dihydroxy cedrane**

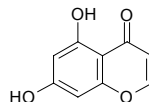
$C_{15}H_{26}O_2$  (238.37). Colorless oil,  $[\alpha]_D = -7.4^\circ$  ( $c = 1.4$ ,  $CHCl_3$ ). **Source:** HUANG HUA HAO *Artemisia annua* (seed). **Ref:** 3435.

**5788 4,4'-Dihydroxychalcone**

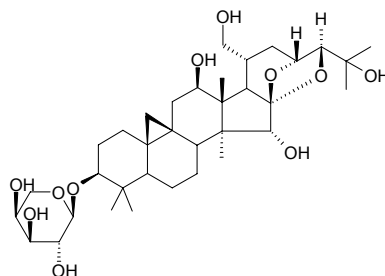
$C_{15}H_{12}O_3$  (240.26). **Pharm:** Cytotoxic inactive (Colon26-L5, HT1080,  $100\mu\text{mol/L}$ )<sup>[3042]</sup>. **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00013%). **Ref:** 3042.

**5789 5,7-Dihydroxychromone**

[31721-94-5]  $C_9H_6O_4$  (178.15). **Pharm:** Antibacterial (gram-positive bacteria); Anti-HIV (inhibits HIV replication, H9 Lymphocytic Cells,  $IC_{50}$  (concentration that inhibits uninfected H9 cell growth by 50%)  $> 25\mu\text{g/mL}$ ,  $EC_{50} = 18.65\mu\text{g/mL}$ ,  $TI = 1.34$ , control AZT  $IC_{50} = 500\mu\text{g/mL}$ ,  $EC_{50} = 0.0007\mu\text{g/mL}$ ,  $TI = 710000$ )<sup>[4267]</sup>. **Source:** SANG YE *Morus alba*, SHUI FEI JI *Silybum marianum*, LUO HUA SHENG *Arachis hypogaea*, NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). **Ref:** 658, 4267.

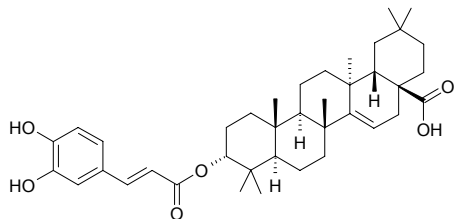
**5790 12β,21-Dihydroxycimigenol 3-O-α-L-arabinopyranoside**

$C_{35}H_{56}O_{11}$  (652.83). Amorphous solid,  $[\alpha]_D^{27} = +10.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HSC-2 cells,  $IC_{50} = 222\mu\text{mol/L}$ , control Etoposide,  $IC_{50} = 24\mu\text{mol/L}$ ; HGF cells,  $IC_{50} = 265\mu\text{mol/L}$ )<sup>[4158]</sup>. **Source:** ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). **Ref:** 4158.



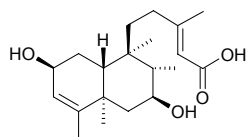
**5791 3 $\alpha$ -(3'',4''-Dihydroxy-*trans*-cinnamoyloxy)-*D*-friedo-olean-14-en-28-oic acid**

C<sub>39</sub>H<sub>54</sub>O<sub>6</sub> (618.86). Amorphous solid, mp 196–198°C, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = -22° (*c* = 0.04, MeOH). **Pharm:** Antioxidant (*in vitro*: DPPH free radical scavenger, IC<sub>50</sub> = (29±1)μmol/L, control BHA, IC<sub>50</sub> = (44±2)μmol/L; superoxide scavenger, IC<sub>50</sub> = (306±1)μmol/L, control PG IC<sub>50</sub> = (106±2)μmol/L; PEP inhibitor, IC<sub>50</sub> = (0.250±0.021)μmol/L, control Bacitracin, IC<sub>50</sub> = (129.3±3.3)μmol/L). **Source:** GANG MAO CHENG LIU *Tamarix hispida* (aerial parts). **Ref:** 4923.



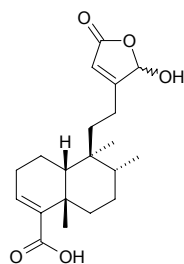
**5792 (*ent*-2 $\alpha$ ,7 $\beta$ ,13*E*) 2,7-Dihydroxy-3,13-clerodadien-15-oic acid**

C<sub>20</sub>H<sub>32</sub>O<sub>4</sub> (336.48). **Source:** GAO YI ZHI HUANG HUA *Solidago altissima*. **Ref:** 1521.



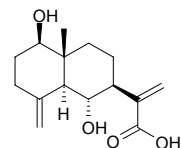
**5793 (-)-12,16-Dihydroxy-*cis*-cleroda-3,13-dien-15-oic acid-15,16-olide**

C<sub>20</sub>H<sub>28</sub>O<sub>5</sub> (348.44). **Source:** GE LUN BI YA BA DOU *Croton schiedeanus* (aerial parts). **Ref:** 4447.



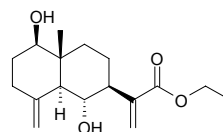
**5794 1 $\beta$ -6 $\alpha$ -Dihydroxycostic acid**

C<sub>15</sub>H<sub>22</sub>O<sub>4</sub> (266.34). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +12.0° (*c* = 0.1, MeOH). **Pharm:** Cytotoxic inactive (KB ATCC CCL17, 20μg/mL). **Source:** *Warionia saharae*. **Ref:** 5399.



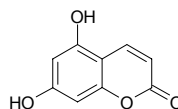
**5795 1 $\beta$ ,6 $\alpha$ -Dihydroxycostic acid ethyl ester**

C<sub>17</sub>H<sub>26</sub>O<sub>4</sub> (294.39). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, CD<sub>50</sub> = 50μg/mL; HeLa, CD<sub>50</sub> = 75μg/mL; OVCAR-3, CD<sub>50</sub> = 75μg/mL; control Cisplatin, HepG<sub>2</sub>, CD<sub>50</sub> = 2.8μg/mL; HeLa, CD<sub>50</sub> = 5.2μg/mL; OVCAR-3, CD<sub>50</sub> = 3μg/mL). **Source:** MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*] (root: yield = 0.0015%dw). **Ref:** 4720.



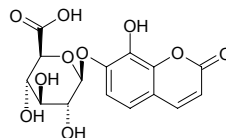
**5796 5,7-Dihydroxycoumarin**

C<sub>9</sub>H<sub>6</sub>O<sub>4</sub> (178.15). **Pharm:** EBV-EA inhibitor (TPA-induced, IC<sub>50</sub> = 477 Mol ratio/32 pmol TPA, control β-Carotene, IC<sub>50</sub> = 400 Mol ratio/32 pmol TPA). **Source:** YUAN DONG JIU LI XIANG *Murraya siamensis* (leaf). **Ref:** 5255.



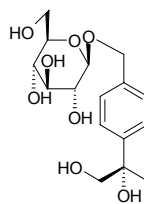
**5797 7,8-Dihydroxycoumarin-7-*O*- $\beta$ -*D*-glucuronide**

C<sub>15</sub>H<sub>14</sub>O<sub>10</sub> (354.27). Brown solid, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -75.11° (*c* = 1.35, MeOH). **Source:** BIAN TAI *Bazzania trilobata*. **Ref:** 3860.



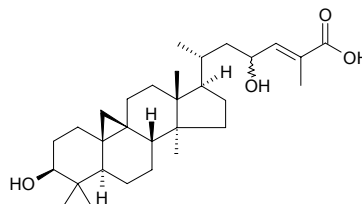
**5798 (8*S*)-8,9-Dihydroxycuminyl  $\beta$ -*D*-glucopyranoside**

C<sub>16</sub>H<sub>24</sub>O<sub>8</sub> (344.36). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = -31° (*c* = 0.4, MeOH). **Source:** ZI RAN QIN *Cuminum cyminum* (fruit). **Ref:** 4243.



**5799 3 $\beta$ ,23(*R* or *S*)-dihydroxycycloart-24-en-26-oic acid**

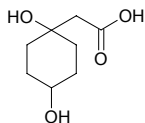
C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). Shining crystals (CHCl<sub>3</sub>-MeOH), mp 279–281° [ $\alpha$ ]<sub>D</sub><sup>30</sup> = +49° (*c* = 0.52, CHCl<sub>3</sub>). **Source:** MANG GUO *Mangifera indica*. **Ref:** 1868.



**5800 2-(1,4-Dihydroxycyclohexanyl)-acetic acid**

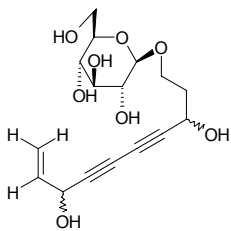
$C_8H_{14}O_4$  (174.20). Colorless snow-like crystals (MeOH-H<sub>2</sub>O), mp 163–165°C.

Source: MA YE QIAN LI GUANG *Senecio cannabinifolius*. Ref: 4809.

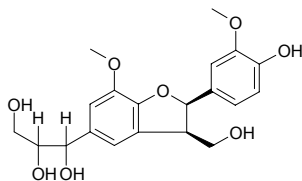
**5801 3(ζ),8(ζ)-Dihydroxydec-9-en-4,6-yne-1-O-β-D-glucopyranoside**

$C_{16}H_{22}O_8$  (342.35). Pale yellow oil,  $[\alpha]_D^{25} = -45.3^\circ$  ( $c = 0.75$ , CH<sub>3</sub>OH). Pharm:

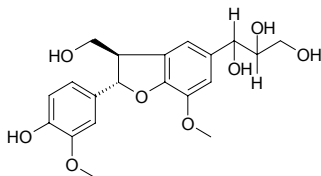
12-Lipoxygenase inhibitor (10 μg/mL, InRt = 8.11%; 30 μg/mL, InRt = 25.81%; control Baicalein, 10 μg/mL, InRt = 56.23%). Source: DAN ZI HAO *Artemisia monosperma*. Ref: 5249.

**5802 erythro-Dihydroxydehydrodiconiferyl alcohol**

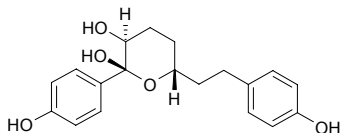
$C_{20}H_{24}O_8$  (392.41). Source: DU ZHONG *Eucommia ulmoides*. Ref: 2.

**5803 threo-Dihydroxydehydrodiconiferyl alcohol**

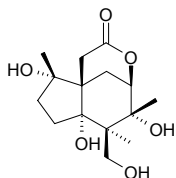
$C_{20}H_{24}O_8$  (392.41). Source: DU ZHONG *Eucommia ulmoides*. Ref: 2.

**5804 (5S,6S)-5,6-Dihydroxy-4''-de-O-methylcentrolobine**

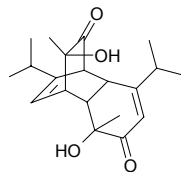
$C_{19}H_{22}O_5$  (330.38). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00025%<sup>[3035]</sup>; yield = 0.00118%<sup>[3042]</sup>). Ref: 3035, 3042.

**5805 1,6-Dihydroxy-3-deoxymynwanensin**

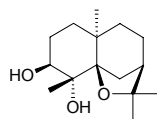
$C_{15}H_{24}O_6$  (300.35). Source: *Illicium merrillianum* (pericarp). Ref: 4257.

**5806 8,12-Dihydroxydielmentha-5,9-diene-7,11-dione**

$C_{20}H_{28}O_4$  (332.44). Source: TAI WAN CUI BAI *Calocedrus macrolepis* var. *formosana* (leaf). Ref: 4298.

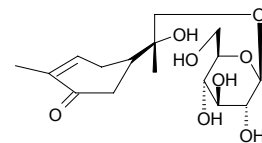
**5807 3,4-Dihydroxydihydroagarofuran**

$C_{15}H_{26}O_3$  (254.37). mp 176°C. Source: CHEN XIANG *Aquilaria agallocha*. Ref: 6, 13.

**5808 (4S,8S)-8,9-Dihydroxy-8,9-dihydrocarvone 9-O-β-D-glucopyranoside**

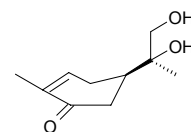
$C_{16}H_{26}O_8$  (346.38). Amorphous powder,  $[\alpha]_D^{24} = -17^\circ$  ( $c = 1.4$ , MeOH).

Source: SHI LUO ZI *Anethum graveolens* (fruit). Ref: 4177.

**5809 (4S,8R)-8,9-Dihydroxy-8,9-dihydrocarvone**

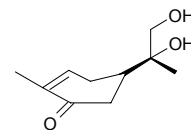
$C_{10}H_{16}O_3$  (184.24). Amorphous powder,  $[\alpha]_D^{25} = -26^\circ$  ( $c = 0.1$ , MeOH).

Source: GE LU ZI *Carum carvi* (fruit). Ref: 4153.

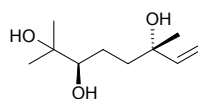
**5810 (4S,8S)-8,9-Dihydroxy-8,9-dihydrocarvone**

$C_{10}H_{16}O_3$  (184.24). Amorphous powder,  $[\alpha]_D^{25} = -7^\circ$  ( $c = 0.2$ , MeOH). Source:

GE LU ZI *Carum carvi* (fruit), SHI LUO ZI *Anethum graveolens* (fruit). Ref: 4153, 4177.

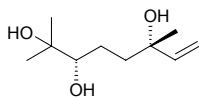
**5811 (3S,6R)-6,7-Dihydroxy-6,7-dihydrolinalool**

$C_{10}H_{20}O_3$  (188.27). Amorphous powder,  $[\alpha]_D^{21} = +22^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>),  $[\alpha]_D^{21} = +24^\circ$  ( $c = 0.2$ , MeOH). Source: HU SUI ZI *Coriandrum sativum*. Ref: 4302.

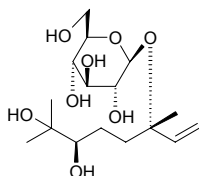


**5812 (3S,6S)-6,7-Dihydroxy-6,7-dihydrolinalool**

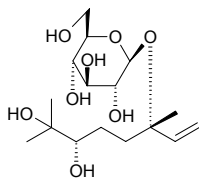
$C_{10}H_{20}O_3$  (188.27). Amorphous powder,  $[\alpha]_D^{21} = -29^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ),  $[\alpha]_D^{21} = -15^\circ$  ( $c = 0.3$ , MeOH). Source: HU SUI ZI *Coriandrum sativum*. Ref: 4302.

**5813 (3S,6R)-6,7-Dihydroxy-6,7-dihydrolinalool-3-O-β-D-glucopyranoside**

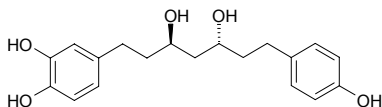
$C_{16}H_{30}O_8$  (350.41). Amorphous powder,  $[\alpha]_D^{21} = +6^\circ$  ( $c = 0.1$ , MeOH). Source: HU SUI ZI *Coriandrum sativum*. Ref: 4302.

**5814 (3S,6S)-6,7-Dihydroxy-6,7-dihydrolinalool-3-O-β-D-glucopyranoside**

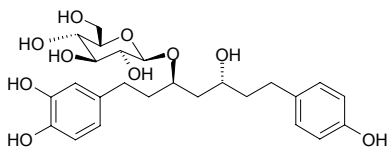
$C_{16}H_{30}O_8$  (350.41). Amorphous powder,  $[\alpha]_D^{21} = -27^\circ$  ( $c = 1.0$ , MeOH). Source: HU SUI ZI *Coriandrum sativum*. Ref: 4302.

**5815 3,5-Dihydroxy-1-(3,4-dihydroxyphenyl)-7-(4-hydroxyphenyl)heptane**

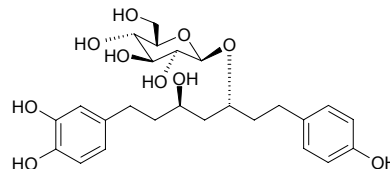
$C_{19}H_{24}O_5$  (332.4). Viscous syrup,  $[\alpha]_D^{23} = +1.7^\circ$  ( $c = 0.12$ , MeOH). Pharm: Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 2.1\mu g/mL$ ; HSC-2,  $IC_{50} = 54\mu g/mL$ ; HGF,  $IC_{50} = 162\mu g/mL$ ; control Etoposide: HL-60,  $IC_{50} = 0.2\mu g/mL$ ; HSC-2,  $IC_{50} = 24\mu g/mL$ ; HGF,  $IC_{50} > 200\mu g/mL$ ). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.0052%dw). Ref: 4609.

**5816 (3R,5R)-3,5-Dihydroxy-1-(3,4-dihydroxyphenyl)-7-(4-hydroxyphenyl)heptane 3-O-β-D-glucopyranoside**

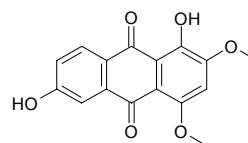
$C_{25}H_{34}O_{10}$  (494.54). Amorphous solid,  $[\alpha]_D^{25} = -12.0^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 6.2\mu g/mL$ ; HSC-2,  $IC_{50} = 158\mu g/mL$ ; HGF,  $IC_{50} = 220\mu g/mL$ ; control Etoposide: HL-60,  $IC_{50} = 0.2\mu g/mL$ ; HSC-2,  $IC_{50} = 24\mu g/mL$ ; HGF,  $IC_{50} > 200\mu g/mL$ ). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.0014%dw). Ref: 4609.

**5817 (3R,5R)-3,5-Dihydroxy-1-(3,4-dihydroxyphenyl)-7-(4-hydroxyphenyl)heptane 5-O-β-D-glucopyranoside**

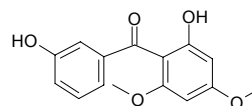
$C_{25}H_{34}O_{10}$  (494.54). Amorphous solid,  $[\alpha]_D^{25} = -12.0^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 5.5\mu g/mL$ ; HSC-2,  $IC_{50} = 155\mu g/mL$ ; HGF,  $IC_{50} > 250\mu g/mL$ ; control Etoposide: HL-60,  $IC_{50} = 0.2\mu g/mL$ ; HSC-2,  $IC_{50} = 24\mu g/mL$ ; HGF,  $IC_{50} > 200\mu g/mL$ ). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.00027%dw). Ref: 4609.

**5818 1,6-Dihydroxy-2,4-dimethoxyanthraquinone V**

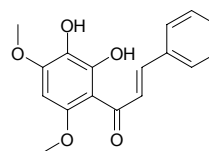
$C_{16}H_{12}O_6$  (300.27). Yellow acicular crystals, mp 205–207°C. Source: BA JI TIAN *Morinda officinalis*. Ref: 228, 8.

**5819 6,3'-Dihydroxy-2,4-dimethoxybenzophenone**

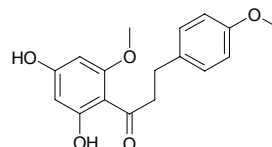
$C_{15}H_{14}O_5$  (274.28). Source: SHAN ZHU ZI *Garcinia multiflora* (stem: yield = 0.0022%dw). Ref: 4708.

**5820 2',3'-Dihydroxy-4',6'-dimethoxychalcone**

$C_{17}H_{16}O_5$  (300.31). Red crystals, mp 124–126°C. Source: TIAN ZI YU PAN *Uvaria dulcis* (leaf). Ref: 3928.

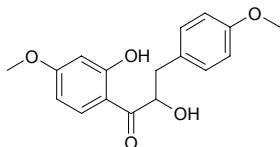
**5821 2',4'-Dihydroxy-4,6'-dimethoxychalcone**

$C_{17}H_{16}O_5$  (302.33). Colorless needles (MeOH), mp 171°C, mp 175–176°C. Source: CHANG YE GE NA XIANG *Goniothalamus gardneri* (aerial parts). Ref: 5096.

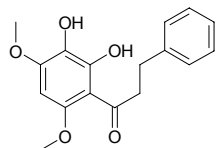


**5822 *α*-2'-Dihydroxy-4,4'-dimethoxydihydrochalcone**

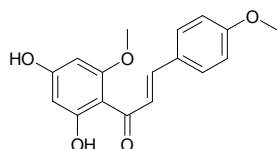
$C_{17}H_{18}O_5$  (302.33). Colorless needles ( $C_6H_6$ -EtOAc), mp 94°C,  $[\alpha]_D^{25} = -76.84^\circ$  ( $c = 0.001015$ , MeOH). Source: MENG MAI ROU DOU KOU *Myristica malabarica* (heartwood). Ref: 3906.

**5823 2',3'-Dihydroxy-4',6'-dimethoxydihydrochalcone**

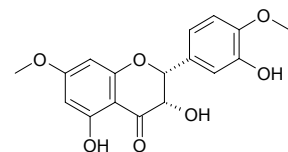
$C_{17}H_{18}O_5$  (302.33). Light yellow crystals, mp 141~142°C. Source: TIAN ZI YU PAN *Uvaria dulcis* (leaf). Ref: 3928.

**5824 2',4'-Dihydroxy-4,6'-dimethoxydihydrochalcone**

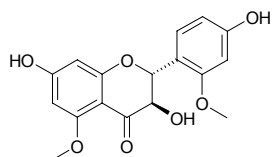
$C_{17}H_{16}O_5$  (300.31). Yellow plates (MeOH), mp 161~163°C, mp 158~159°C. Source: CHANG YE GE NA XIANG *Goniothalamus gardneri* (aerial parts). Ref: 5096.

**5825 (2*R*,3*S*)-(+)-3',5-Dihydroxy-4',7-dimethoxydihydroflavonol**

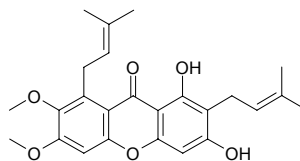
$C_{17}H_{16}O_7$  (332.31). Colorless powder from MeOH, mp 183.5~184.0°C,  $[\alpha]_D^{24} = 156^\circ$  ( $c = 0.2$ , MeOH). Source: HOU PI SHU *Lannea grandis* [Syn. *Lannea coromandelica*]. Ref: 739.

**5826 (2*R*,3*R*)-4',7-Dihydroxy-2',5-dimethoxydihydroflavonol**

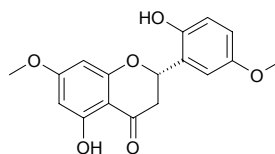
$C_{17}H_{16}O_7$  (332.31). White powder,  $[\alpha]_D^{25} = +82.7^\circ$  ( $c = 0.12$ , MeOH). Pharm: Cytotoxic (Bel7402,  $ED_{50} > 10\mu\text{g/mL}$ , control Camptothecin,  $ED_{50} = 0.06\mu\text{g/mL}$ ; BGC823,  $ED_{50} > 10\mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.09\mu\text{g/mL}$ ; HCT8,  $ED_{50} > 10\mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.14\mu\text{g/mL}$ ; A549,  $ED_{50} > 10\mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.09\mu\text{g/mL}$ ; MCF7,  $ED_{50} > 10\mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.01\mu\text{g/mL}$ ). Source: GOU JI *Cudrania cochinchinensis* (root). Ref: 5338.

**5827 1,3-Dihydroxy-6,7-dimethoxy-2,8-diprenylxanthone**

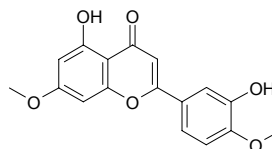
$C_{25}H_{28}O_6$  (424.50). Yellow powder, mp 91~92°C. Pharm: Cytotoxic (hmn small cell lung cancer NCI-H187 cell line,  $IC_{50} = (3.69\pm 1.27)\mu\text{g/mL}$ , control Ellipticine,  $IC_{50} = (0.35\pm 0.15)\mu\text{g/mL}$ ). Source: QIAO MU ZHUANG HUANG NIU MU *Cratogeomys arborescens* (stem cortex). Ref: 5061.

**5828 (2*S*)-5,2'-Dihydroxy-7,5'-dimethoxyflavanone**

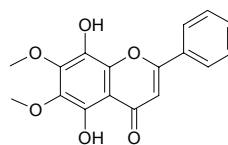
$C_{17}H_{16}O_6$  (316.31). Pharm: AChE inhibitor (*in vitro*,  $IC_{50} = (28.0\pm 5.0)\mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (32.2\pm 2.5)\mu\text{mol/L}$ )<sup>[4333]</sup>; BChE inhibitor (*in vitro*,  $IC_{50} = (7.9\pm 5.0)\mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (163.0\pm 5.0)\mu\text{mol/L}$ ). Source: CU YING MAO DIAN ZI CAO *Onosma hispida* (whole herb). Ref: 4333.

**5829 5,3'-Dihydroxy-7,4'-dimethoxyflavone**

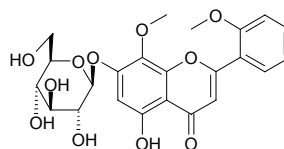
[32174-62-2]  $C_{17}H_{14}O_6$  (314.30). Source: CHI YANG *Alnus japonica*. Ref: 1521.

**5830 5,8-Dihydroxy-6,7-dimethoxyflavone**

$C_{17}H_{14}O_6$  (314.30). Source: HUANG QIN *Scutellaria baicalensis*. Ref: 2.

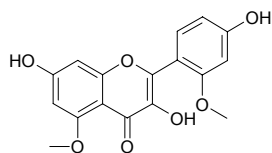
**5831 5,7-Dihydroxy-8,2'-dimethoxyflavone-7-O-β-D-glucopyranoside**

$C_{23}H_{24}O_{11}$  (476.44). Yellow needles (MeOH), mp 248~249°C (dec),  $[\alpha]_D^{25} = -252.5^\circ$  ( $c = 0.075$ , MeOH). Source: KE AI HUANG QIN *Scutellaria amabilis* (root; yield = 0.0027%dw). Ref: 2072.

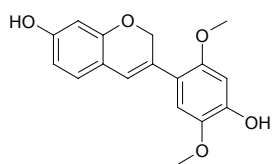


**5832 4',7-Dihydroxy-2',5-dimethoxyflavonol**

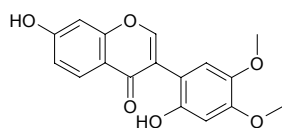
$C_{17}H_{14}O_7$  (330.30). Yellow powder. **Pharm:** Cytotoxic (Bel7402,  $ED_{50} > 10 \mu\text{g/mL}$ , control Camptothecin,  $ED_{50} = 0.06 \mu\text{g/mL}$ ; BGC823,  $ED_{50} > 10 \mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.09 \mu\text{g/mL}$ ; HCT8,  $ED_{50} > 10 \mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.14 \mu\text{g/mL}$ ; A549,  $ED_{50} > 10 \mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.09 \mu\text{g/mL}$ ; MCF7,  $ED_{50} > 10 \mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.01 \mu\text{g/mL}$ ). **Source:** GOU JI *Cudrania cochinchinensis* (root). **Ref:** 5338.

**5833 7,4'-Dihydroxy-2',5'-dimethoxyisoflav-3-ene**

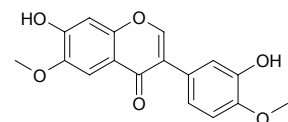
$C_{17}H_{16}O_5$  (300.31). Amorphous powder. **Pharm:** Antimalarial (antiplasmodial *in vitro*, *Plasmodium falciparum*, W2 strain,  $IC_{50} = (27.7 \pm 1.8) \mu\text{mol/L}$ , control Quinine,  $IC_{50} = (0.21 \pm 0.01) \mu\text{mol/L}$ ; D6 strain,  $IC_{50} = (18.2 \pm 1.1) \mu\text{mol/L}$ , Quinine,  $IC_{50} = (0.042 \pm 0.002) \mu\text{mol/L}$ ). **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica* (root cortex). **Ref:** 5420.

**5834 2',7-Dihydroxy-4',5'-dimethoxyisoflavone**

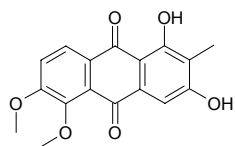
$C_{17}H_{14}O_6$  (314.30). Yellow crystals from methanol, mp 238–240°C. **Pharm:** Hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by *D*-galactosamine (GalN),  $100 \mu\text{mol/L}$ , InRt =  $(25.9 \pm 1.6)\%$ , weak, control Silybin,  $100 \mu\text{mol/L}$ , InRt =  $(77.0 \pm 5.5)\%$ )<sup>[4095]</sup>. **Source:** GUANG BU DING GONG TENG *Erycibe expansa*, JIANG ZHEN XIANG *Dalbergia odorifera*. **Ref:** 716, 4095.

**5835 3',7-Dihydroxy-4',6-dimethoxyisoflavone**

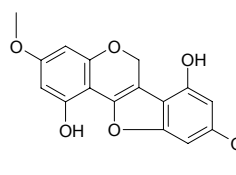
$C_{17}H_{14}O_6$  (314.30). **Source:** XIANG DOU *Dipteryx odorata* (callus and root), *Glycyrrhiza* sp. **Ref:** 2431, 4475.

**5836 1,3-Dihydroxy-5,6-dimethoxy-2-methyl-9,10-anthraquinone**

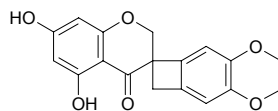
$C_{17}H_{14}O_6$  (314.30). Yellow powder (acetone), mp  $> 228^\circ\text{C}$ . **Source:** NAN SHAN HUA *Prismatomeris tetrandra* (root). **Ref:** 4521.

**5837 1,7-Dihydroxy-3,9-dimethoxy pterocarpene**

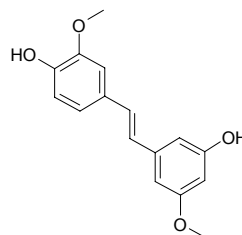
$C_{17}H_{14}O_6$  (314.30). Colorless acicular crystals, mp 210–214°C. **Source:** HONG HUA YAN HUANG QI *Hedysarum multijugum*. **Ref:** 2224.

**5838 5,7-Dihydroxy-3',4'-dimethoxyspiro{2H-1-benzopyran-7'-bicyclo[4.2.0]octa[1,3,5]-trien}-4-one**

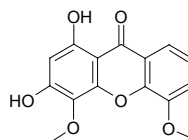
$C_{18}H_{16}O_6$  (328.32). Yellow gum,  $[\alpha]_D^{25} = +56.0^\circ$  ( $c = 0.035$ , MeOH). **Source:** HE CAO YE JIA BEI FANG FENG *Ledebouria graminifolia* (tuber). **Ref:** 3368.

**5839 3',4-Dihydroxy-3,5'-dimethoxystilbene**

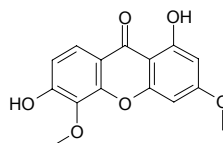
$C_{16}H_{16}O_4$  (272.30). Brown oil. **Source:** *Scilla nervosa* (bulb). **Ref:** 2381.

**5840 1,3-Dihydroxy-4,5-dimethoxyxanthone**

[22804-53-1]  $C_{15}H_{12}O_6$  (288.26). mp 274–275°C. **Source:** ZHANG YA CAI *Swertia pseudochinensis*. **Ref:** 6.

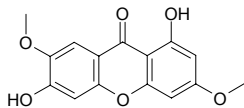
**5841 1,6-Dihydroxy-3,5-dimethoxyxanthone**

$C_{15}H_{12}O_6$  (288.26). **Pharm:** Cytotoxic ( $P_{388}$   $ED_{50} = 4.74 \mu\text{g/mL}$ , control Mithramycin  $ED_{50} = 0.06 \mu\text{g/mL}$ , HT29  $ED_{50} = 7.28 \mu\text{g/mL}$ , Mithramycin  $ED_{50} = 0.08 \mu\text{g/mL}$ ). **Source:** TAI WAN LV DAO TENG HUANG *Garcinia linnii*. **Ref:** 4094.

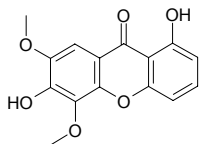


**5842 1,6-Dihydroxy-3,7-dimethoxyxanthone**

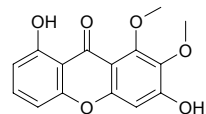
$C_{15}H_{12}O_6$  (288.26). Source: YUAN ZHI *Polygala tenuifolia*. Ref: 2.

**5843 1,6-Dihydroxy-5,7-dimethoxyxanthone**

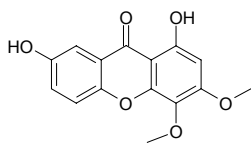
$C_{15}H_{12}O_6$  (288.26). Pharm: Cytotoxic ( $P_{388}$   $ED_{50}$  = 3.25  $\mu\text{g/mL}$ , control Mithramycin  $ED_{50}$  = 0.06  $\mu\text{g/mL}$ , HT29  $ED_{50}$  = 5.48  $\mu\text{g/mL}$ , Mithramycin  $ED_{50}$  = 0.08  $\mu\text{g/mL}$ ). Source: TAI WAN LV DAO TENG HUANG *Garcinia linii*. Ref: 4094.

**5844 1,6-Dihydroxy-7,8-dimethoxyxanthone**

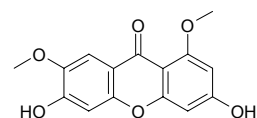
$C_{15}H_{12}O_6$  (288.26). Pharm: Antifungal (*Aspergillus fumigatus* CBS113.26,  $MIC_{80}$  = 16  $\mu\text{g/mL}$ , control Amphotericin B,  $MIC_{80}$  = 8  $\mu\text{g/mL}$ ; *Aspergillus flavus* IHEM37.19,  $MIC_{80}$  = 8  $\mu\text{g/mL}$ , Amphotericin B,  $MIC_{80}$  = 8  $\mu\text{g/mL}$ ; *Aspergillus niger* IHEM2951,  $MIC_{80}$  = 31  $\mu\text{g/mL}$ , Amphotericin B,  $MIC_{80}$  = 16  $\mu\text{g/mL}$ ; *Aspergillus terreus* 5029.2000,  $MIC_{80}$  = 62  $\mu\text{g/mL}$ ; Amphotericin B,  $MIC_{80}$  = 16  $\mu\text{g/mL}$ ; *Candida albicans* ATCC663.90,  $MIC_{80}$  = 62  $\mu\text{g/mL}$ ; Amphotericin B,  $MIC_{80}$  = 1  $\mu\text{g/mL}$ ). Source: SU GE LAN HU TONG *Calophyllum caledonicum* (stem cortex). Ref: 4995.

**5845 1,7-Dihydroxy-3,4-dimethoxyxanthone**

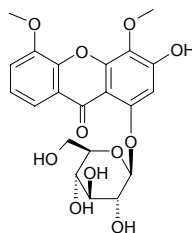
$C_{15}H_{12}O_6$  (288.26). Source: CHAN YI TENG *Securidaca inappendiculata* (stem). Ref: 5238.

**5846 3,6-Dihydroxy-1,7-dimethoxyxanthone**

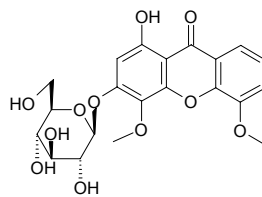
$C_{15}H_{12}O_6$  (288.26). Yellow powder, mp 251–252°C (dec). Source: HUANG HAI TANG *Hypericum ascyron*. Ref: 2398.

**5847 1,3-Dihydroxy-4,5-dimethoxyxanthone-1-O-β-D-glucopyranoside**

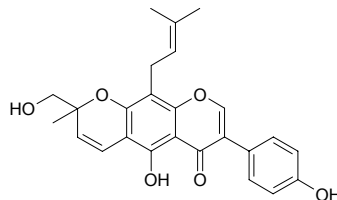
$C_{21}H_{22}O_{11}$  (450.40). mp 269–274°C (dec). Source: ZHANG YA CAI *Swertia pseudochinensis*. Ref: 6.

**5848 1,3-Dihydroxy-4,5-dimethoxyxanthone-3-O-β-D-glucopyranoside**

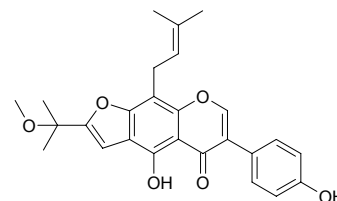
$C_{21}H_{22}O_{11}$  (450.40). mp 264–266°C. Source: ZHANG YA CAI *Swertia pseudochinensis*. Ref: 6.

**5849 5,4'-Dihydroxy-8-(3,3-dimethylallyl)-2''-hydroxymethyl-2''-methylpyrano[5,6:6,7]isoflavone**

$C_{25}H_{24}O_6$  (420.47). Yellow amorphous powder, mp 205–207°C,  $[\alpha]_D^{20}$  = -7.8° ( $c$  = 0.1, MeOH). Source: CI TONG *Erythrina variegata* [Syn. *Erythrina indica*] (stem cortex: yield = 0.000024%fw). Ref: 2269.

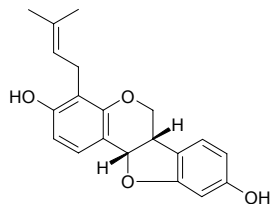
**5850 5,4'-Dihydroxy-8-(3,3-dimethylallyl)-2''-methoxyisopropylfurano[4,5:6,7]isoflavone**

$C_{26}H_{26}O_6$  (434.49). Yellow amorphous powder, mp 101–102°C. Source: CI TONG *Erythrina variegata* [Syn. *Erythrina indica*] (stem cortex: yield = 0.000012%fw). Ref: 2269.

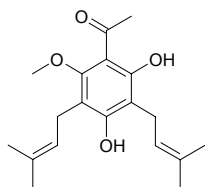


**5851 3,9-Dihydroxy-4-(3,3-dimethylallyl)[6aR,11aR]-pterocarpane**

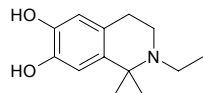
$C_{20}H_{20}O_4$  (324.38). Yellow gum,  $[\alpha]_D^{25} = -41^\circ$  ( $c = 0.3$ , MeOH). **Pharm:** Cytotoxic (KB,  $IC_{50} = (60.8 \pm 8.0) \mu\text{mol/L}$ , control Helenalin,  $IC_{50} = (0.64 \pm 0.08) \mu\text{mol/L}$ , Melphalan,  $IC_{50} = (6.0 \pm 0.5) \mu\text{mol/L}$ ; Mono-Mac-6,  $IC_{50} > 75 \mu\text{mol/L}$ , Helenalin,  $IC_{50} = (3.1 \pm 0.3) \mu\text{mol/L}$ ; Jurkat-T,  $IC_{50} = (61.1 \pm 7.7) \mu\text{mol/L}$ , Helenalin,  $IC_{50} = (1.14 \pm 0.08) \mu\text{mol/L}$ , Melphalan,  $IC_{50} = (9.1 \pm 0.8) \mu\text{mol/L}$ ). **Source:** *Bituminaria morisiana* (leaf). **Ref:** 5077.

**5852 1-[2',4'-Dihydroxy-3',5'-di-(3''-methylbut-2''-enyl)-6'-methoxy]-phenylethanone**

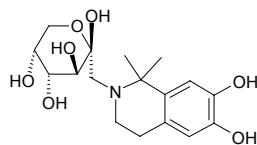
$C_{19}H_{26}O_4$  (318.42). **Source:** SHA TANG MU *Acronychia pedunculata*. **Ref:** 2373.

**5853 6,7-Dihydroxy-1,1-dimethyl-N-ethyl-1,2,3,4-tetrahydroisoquinoline**

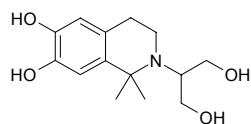
$C_{13}H_{19}NO_2$  (221.30). Amorphous brownish solid,  $184^\circ$  dec (MeOH),  $[\alpha]_D^{25} = +13^\circ$  ( $c = 0.70$ , MeOH). **Source:** GONG XING MA DOU LING *Aristolochia arcuata*. **Ref:** 2037.

**5854 6,7-Dihydroxy-1,1-dimethyl-N-(6'-fructopyranosyl)-1,2,3,4-tetrahydroisoquinoline**

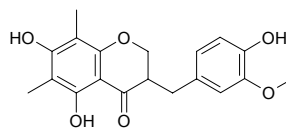
$C_{17}H_{25}NO_7$  (355.39). Amorphous brownish solid,  $105^\circ$  dec (MeOH),  $[\alpha]_D^{25} = -44^\circ$  ( $c = 0.26$ , MeOH). **Source:** GONG XING MA DOU LING *Aristolochia arcuata*. **Ref:** 2037.

**5855 6,7-Dihydroxy-1,1-dimethyl-N-(2'-glyceryl)-1,2,3,4-tetrahydroisoquinoline**

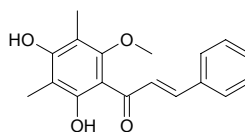
$C_{14}H_{21}NO_4$  (267.33). Amorphous brownish solid,  $174^\circ$  dec. (MeOH),  $[\alpha]_D^{25} = -11^\circ$  ( $c = 0.72$ , MeOH). **Source:** GONG XING MA DOU LING *Aristolochia arcuata*. **Ref:** 2037.

**5856 5,7-Dihydroxy-6,8-dimethyl-3-(4'-hydroxy-3'-methoxybenzyl)chroman-4-one**

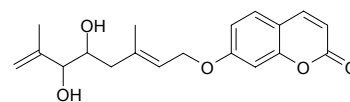
$C_{19}H_{20}O_6$  (344.37). **Source:** MAI DONG *Ophiopogon japonicus*. **Ref:** 2044.

**5857 4',6'-Dihydroxy-3',5'-dimethyl-2'-methoxychalcone**

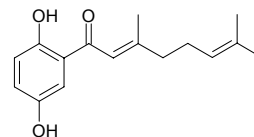
$C_{18}H_{18}O_4$  (298.34). **Source:** YANG PU TAO YE *Syzygium samarangense*. **Ref:** 4100.

**5858 7-(5',6'-Dihydroxy-3',7'-dimethylocta-2',7'-dienyloxy)-coumarin**

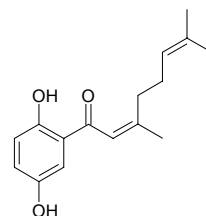
$C_{19}H_{22}O_5$  (330.38). **Pharm:** Antibacterial; smooth muscle relaxant; anticoagulant; photosensitive agent; ichthyotoxin; toxin. **Source:** *Zanthoxylum* sp. **Ref:** 2176.

**5859 1,4-Dihydroxy-2-(3',7'-dimethyl-1'-oxo-2'-E,6'-octadienyl)benzene**

$C_{16}H_{20}O_3$  (260.34). White amorphous powder. **Pharm:** Antifungal (TLC bioautographic assay, *Cladosporium cladosporioides*, MA = 1.0 $\mu\text{g}$ , control Miconazole, MA = 1.0 $\mu\text{g}$ ; *Cladosporium sphaerospermum*, MA = 1.0 $\mu\text{g}$ , Miconazole, MA = 1.0 $\mu\text{g}$ ). **Source:** CU YE MAI HU JIAO *Piper crassinervium*. **Ref:** 3440.

**5860 1,4-Dihydroxy-2-(3',7'-dimethyl-1'-oxo-2'-Z,6'-octadienyl)benzene**

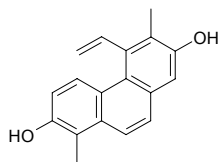
$C_{16}H_{20}O_3$  (260.34). White amorphous powder. **Pharm:** Antifungal (TLC bioautographic assay, *Cladosporium cladosporioides*, MA = 5.0 $\mu\text{g}$ , control Miconazole, MA = 1.0 $\mu\text{g}$ ; *Cladosporium sphaerospermum*, MA = 10.0 $\mu\text{g}$ , Miconazole, MA = 1.0 $\mu\text{g}$ ). **Source:** CU YE MAI HU JIAO *Piper crassinervium*. **Ref:** 3440.



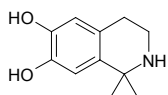


**5861 2,7-Dihydroxy-1,6-dimethylpyrene**

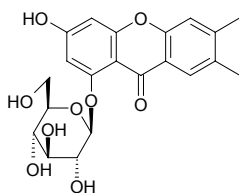
$C_{18}H_{16}O_2$  (264.33). Source: JIAN DENG XIN CAO *Juncus acutus*. Ref: 1965.

**5862 6,7-Dihydroxy-1,1-dimethyl-1,2,3,4-tetrahydroisoquinoline**

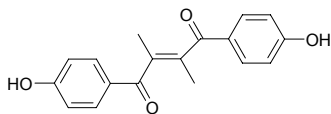
$C_{11}H_{15}NO_2$  (193.25). Amorphous brownish solid, 250° dec (MeOH),  $[\alpha]_D^{25} = +13^\circ$  ( $c = 0.61$ , Me<sub>2</sub>CO). Source: GONG XING MA DOU LING *Aristolochia arcuata*. Ref: 2037.

**5863 1,3-Dihydroxy-6,7-dimethylxanthone-1-O-β-D-glucoside**

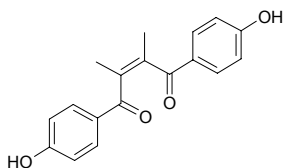
$C_{21}H_{22}O_9$  (418.40). Yellowish massive crystals, mp 262–265°C. Source: HE SHOU WU *Polygonum multiflorum*. Ref: 292.

**5864 (E)-4,4'-Dihydroxy-7,7'-dioxolign-8(8')-ene**

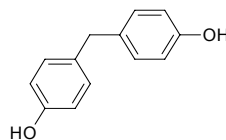
$C_{18}H_{16}O_4$  (296.33). Off-white powder. Pharm: Antioxidant inactive (Takamatsu DCFH method, myelomonocytic HL-60 cells, control NDGA,  $IC_{50} = (0.7 \pm 0.3) \mu\text{g/mL}$ , Vitamin C,  $IC_{50} = (1.9 \pm 0.7) \mu\text{g/mL}$ , Trolox,  $IC_{50} = (1.4 \pm 0.5) \mu\text{g/mL}$ ); cytotoxic (XTT assay, HL-60 cells,  $IC_{50} > 50.0 \mu\text{g/mL}$ ; control NDGA,  $IC_{50} = (2.6 \pm 0.2) \mu\text{g/mL}$ , Vitamin C,  $IC_{50} > 10.0 \mu\text{g/mL}$ , Trolox,  $IC_{50} > 10.0 \mu\text{g/mL}$ ). Source: SAN CHI LA RUI A *Larrea tridentata* (leaf). Ref: 3850.

**5865 (Z)-4,4'-Dihydroxy-7,7'-dioxolign-8(8')-ene**

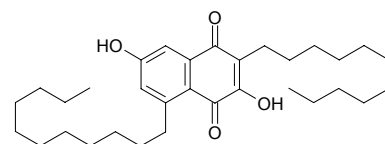
$C_{18}H_{16}O_4$  (296.33). Pharm: Antioxidant inactive (Takamatsu DCFH method, myelomonocytic HL-60 cells, control NDGA,  $IC_{50} = (0.7 \pm 0.3) \mu\text{g/mL}$ , Vitamin C,  $IC_{50} = (1.9 \pm 0.7) \mu\text{g/mL}$ , Trolox,  $IC_{50} = (1.4 \pm 0.5) \mu\text{g/mL}$ ); cytotoxic (XTT assay, HL-60 cells,  $IC_{50} > 50.0 \mu\text{g/mL}$ ; control NDGA,  $IC_{50} = (2.6 \pm 0.2) \mu\text{g/mL}$ , Vitamin C,  $IC_{50} > 10.0 \mu\text{g/mL}$ , Trolox,  $IC_{50} > 10.0 \mu\text{g/mL}$ ). Source: SAN CHI LA RUI A *Larrea tridentata* (leaf). Ref: 3850.

**5866 4,4'-Dihydroxydiphenyl methane**

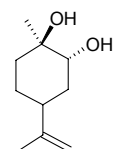
[620-92-8]  $C_{13}H_{12}O_2$  (200.24). Source: TIAN MA *Gastrodia elata*. Ref: 2.

**5867 3,7-Dihydroxy-2,5-diundecylnaphthoquinone**

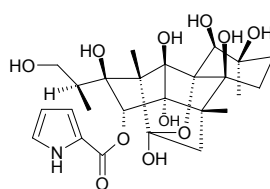
$C_{32}H_{50}O_4$  (498.75). Yellow powder, mp 75–77°C. Pharm: Cytotoxic inactive (*in vitro*, HL-60,  $IC_{50} > 100 \mu\text{g/mL}$ ; Bel7402,  $IC_{50} > 100 \mu\text{g/mL}$ ; HeLa,  $IC_{50} > 100 \mu\text{g/mL}$ ; U937,  $IC_{50} > 100 \mu\text{g/mL}$ ; control Colchicine, HL-60,  $IC_{50} = 1.6 \mu\text{g/mL}$ ; Bel7402,  $IC_{50} = 0.4 \mu\text{g/mL}$ ; HeLa,  $IC_{50} = 0.1 \mu\text{g/mL}$ ; U937,  $IC_{50} = 0.1 \mu\text{g/mL}$ ). Source: LA ZHU GUO *Aegiceras corniculatum* (stem and twig; yield = 0.000025%). Ref: 4746.

**5868 1,2-Dihydroxy-8(9)-ene-p-menthane**

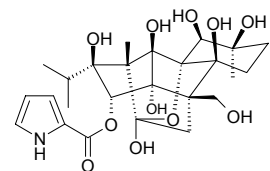
$C_{10}H_{18}O_2$  (170.25). Yellowish oil. Source: JING JIE *Schizonepeta tenuifolia* [Syn. *Nepeta tenuifolia*]. Ref: 2158.

**5869 (13S)-9,18-Dihydroxy-9-epi-10-epi-ryanodine**

$C_{25}H_{35}NO_{11}$  (525.56). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 3:1), mp 190°C,  $[\alpha]_D = +10^\circ$  ( $c = 0.35$ ). Pharm: Cardiac contraction inhibitor (guinea-pig papillary muscle, causes a prolongation of the latency time and decrease of contraction force,  $EC_{50} = 390 \text{ nmol/L}$ ). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

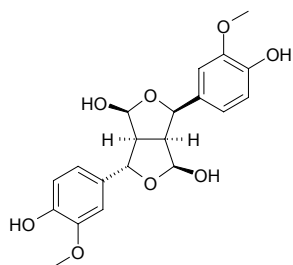
**5870 9,20-Dihydroxy-9-epi-10-epi-ryanodine**

$C_{25}H_{35}NO_{11}$  (525.56). Crystals (CHCl<sub>3</sub>:MeOH = 3:1), mp 178°C,  $[\alpha]_D = +4^\circ$  ( $c = 0.1$ ). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

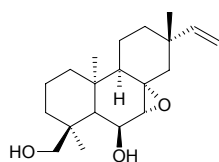


**5871 4,8-Dihydroxyepipinoresinol**

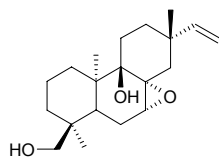
$C_{20}H_{22}O_8$  (390.39). Amorphous powder, mp 128–130°C,  $[\alpha]_D^{27} = +36.8^\circ$  ( $c = 0.29$ , MeOH). Source: YUN NAN TIE SHAN *Tsuga dumosa* (heartwood). Ref: 4568.

**5872 6β,18-Dihydroxy-7α,8α-epoxy-9-epi-ent-pimara-15-ene**

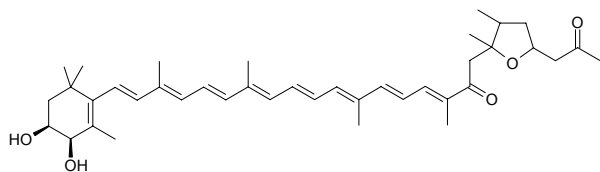
$C_{20}H_{32}O_3$  (320.48). Source: TENG CANG CHI MEI *Gibberella fujikuroi*. Ref: 3916.

**5873 9β,18-Dihydroxy-7α,8α-epoxy-9-epi-ent-pimara-15-ene**

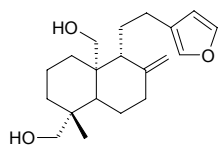
$C_{20}H_{32}O_3$  (320.48). Source: TENG CANG CHI MEI *Gibberella fujikuroi*. Ref: 3916.

**5874 3,4-Dihydroxy-3',6'-epoxy-1',2',5',6'7',8'-hexahydro-6'-methyl-16'-nor-β,φ-carotene-1',8'-dione**

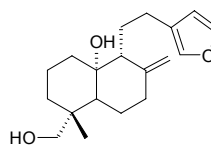
$C_{40}H_{56}O_5$  (616.89). Reddish solid. Source: MU LI (Oyster) *Crassostrea gigas*. Ref: 4515.

**5875 19,20-Dihydroxy-15,16-epoxy-8(17),13(16),14-ent-labdatriene**

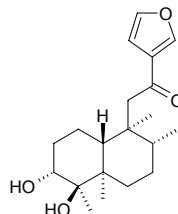
$C_{20}H_{30}O_3$  (318.46). Colorless oil,  $[\alpha]_D^{25} = -20.4^\circ$  ( $c = 0.38$ ,  $CHCl_3$ ). Pharm: Phytotoxin (*Raphidocelis subcapitata*,  $IC_{50} = 18.45\mu\text{mol/L}$ ). Source: FU YE YAN ZI CAI *Potamogeton natans*. Ref: 5184.

**5876 10α,19-Dihydroxy-15,16-epoxy-8(17),13(16),14-nor-ent-labdatriene**

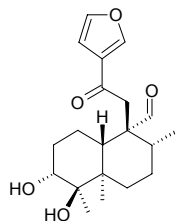
$C_{19}H_{28}O_3$  (304.43). Colorless oil,  $[\alpha]_D^{25} = -4.1^\circ$  ( $c = 0.21$ ,  $CHCl_3$ ). Pharm: Phytotoxin (*Raphidocelis subcapitata*,  $IC_{50} = 2.84\mu\text{mol/L}$ ). Source: FU YE YAN ZI CAI *Potamogeton natans*. Ref: 5184.

**5877 3α,4β-Dihydroxy-15,16-epoxy-12-oxo-cleroda-13(16),14-dien**

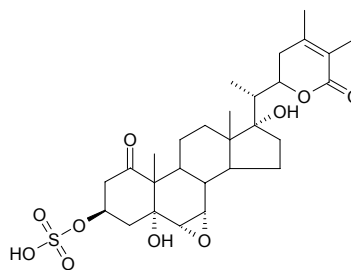
$C_{20}H_{30}O_4$  (334.46). Source: *Croton hovarum*. Ref: 4552.

**5878 3α,4β-Dihydroxy-15,16-epoxy-12-oxo-cleroda-13(16),14-dien-9-ol**

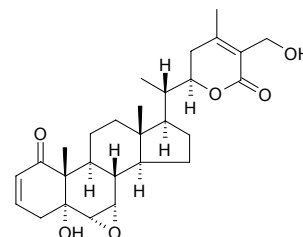
$C_{20}H_{28}O_5$  (348.44). Source: *Croton hovarum*. Ref: 4552.

**5879 5α,17α-Dihydroxy-6α,7α-epoxy-1-oxo-3β-O-sulfate-witha-24-enolide**

$C_{28}H_{40}O_{10}S$  (568.69). mp 158°C,  $[\alpha]_D^{30} = +59.40^\circ$  ( $c = 0.25$ , MeOH). Source: CUI MIAN SHUI QIE *Withania somnifera* (leaf). Ref: 5329.

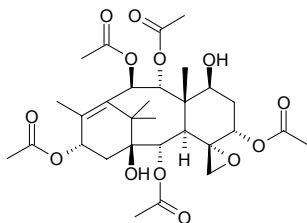
**5880 (20S,22R)-5α,27-Dihydroxy-6α,7α-epoxy-1-oxowitha-2,24-dienolide**

$C_{28}H_{38}O_6$  (470.61). Source: CUI MIAN SHUI QIE *Withania somnifera* (root). Ref: 4198.

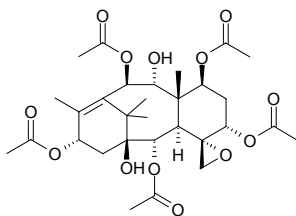


**5881 1 $\beta$ ,7 $\beta$ -Dihydroxy-4 $\beta$ ,20-epoxy-2 $\alpha$ ,5 $\alpha$ ,9 $\alpha$ ,10 $\beta$ ,13 $\alpha$ -pentaacetoxytax-11-ene**

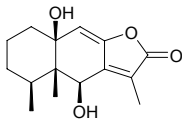
C<sub>30</sub>H<sub>42</sub>O<sub>13</sub> (610.66). Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**5882 1 $\beta$ ,9 $\alpha$ -Dihydroxy-4 $\beta$ ,20-epoxy-2 $\alpha$ ,5 $\alpha$ ,7 $\beta$ ,10 $\beta$ ,13 $\alpha$ -penta-acetoxytax-11-ene**

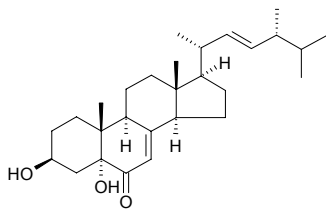
C<sub>30</sub>H<sub>42</sub>O<sub>13</sub> (610.66). Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662.

**5883 6 $\beta$ ,10 $\beta$ -Dihydroxyeremophila-7(11),8(9)-dien-12,8-olide**

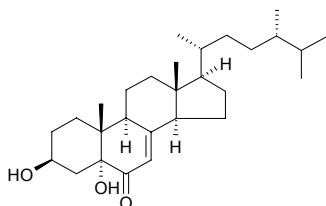
C<sub>15</sub>H<sub>20</sub>O<sub>4</sub> (264.32). Source: *Ligularia virgaurea* ssp. *oligocephala* (whole herb). Ref: 4981.

**5884 3 $\beta$ ,5 $\alpha$ -Dihydroxy-(22E)-ergosta-7,22-dien-6-one**

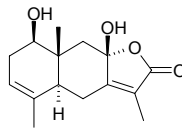
C<sub>28</sub>H<sub>44</sub>O<sub>3</sub> (428.66). Source: *Pleurotus eryngii*. Ref: 4183.

**5885 3 $\beta$ ,5 $\alpha$ -Dihydroxyergost-7-en-6-one**

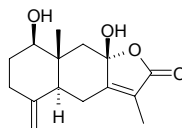
C<sub>28</sub>H<sub>46</sub>O<sub>3</sub> (430.68). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>30</sup> = +28.6° (c = 0.04, MeOH). Source: *Pleurotus eryngii*. Ref: 4183.

**5886 1 $\beta$ ,8 $\beta$ -Dihydroxyeudesman-3,7(11)-dien-8 $\alpha$ ,12-olide**

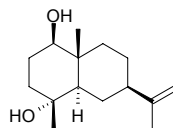
C<sub>15</sub>H<sub>20</sub>O<sub>4</sub> (264.32). White needle crystals (MeOH), mp 193–195°C. Pharm: Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 60 μg/mL). Source: XIAO MEI WEI QIN *Smyrniolum olusatrum* (fruit). Ref: 5162.

**5887 1 $\beta$ ,8 $\beta$ -Dihydroxyeudesman-4(15),7(11)-dien-8 $\alpha$ ,12-olide**

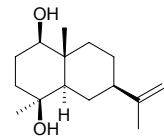
C<sub>15</sub>H<sub>20</sub>O<sub>4</sub> (264.32). White prism crystals (MeOH), mp 178–180°C. Pharm: Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 65 μg/mL). Source: XIAO MEI WEI QIN *Smyrniolum olusatrum* (fruit). Ref: 5162.

**5888 1 $\beta$ ,4 $\alpha$ -Dihydroxyeudesman-11-ene**

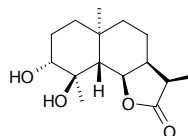
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). [ $\alpha$ ]<sub>D</sub><sup>17</sup> = -25° (c = 0.13, CHCl<sub>3</sub>). Pharm: Cytotoxic (inhibits growth of Bel7402 cell, 0.0001 mol/L, InRt = 34.4%, control Etoposide, InRt = 96.0%). Source: YI NIAN PENG *Erigeron annuus* (aerial parts). Ref: 5073.

**5889 1 $\beta$ ,4 $\beta$ -Dihydroxyeudesman-11-ene**

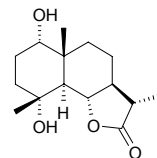
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>17</sup> = -29° (c = 0.13, CHCl<sub>3</sub>). Source: YI NIAN PENG *Erigeron annuus* (aerial parts). Ref: 5073.

**5890 3 $\alpha$ ,4 $\beta$ -Dihydroxy-5 $\beta$ H,11 $\alpha$ H-eudesman-6,12-olide**

C<sub>15</sub>H<sub>24</sub>O<sub>4</sub> (268.36). Source: *Ferula sinaica* (leaf). Ref: 5145.

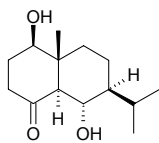
**5891 1 $\alpha$ ,4 $\alpha$ -Dihydroxyeudesman-5 $\alpha$ ,6 $\beta$ ,7 $\alpha$ ,11 $\beta$ H-12,6-olide**

C<sub>15</sub>H<sub>24</sub>O<sub>4</sub> (268.36). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +31° (c = 0.5, CHCl<sub>3</sub>). Source: JIA NA LI HAO *Artemisia canariensis*. Ref: 2332.

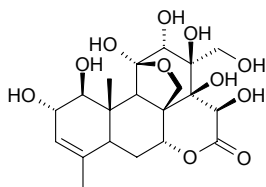


**5892 (1R,5S,6S,7S,10R)-1 $\beta$ ,6 $\alpha$ -Dihydroxyeudesman-4-one**

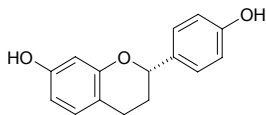
C<sub>14</sub>H<sub>24</sub>O<sub>3</sub> (240.35). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>17</sup> = +25° (c = 0.13, CHCl<sub>3</sub>). Source: YI NIAN PENG *Erigeron annuus* (aerial parts). Ref: 5073.

**5893 13 $\beta$ ,21-Dihydroxyeurycomanol**

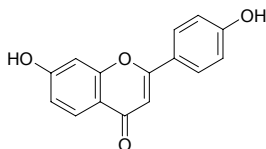
C<sub>20</sub>H<sub>28</sub>O<sub>11</sub> (444.44). Source: *Eurycoma* sp. Ref: 4556.

**5894 7,4'-Dihydroxyflavan**

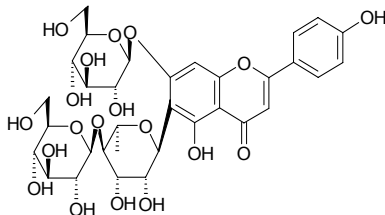
(2S)-7,4'-Dihydroxyflavan [82925-54-0] C<sub>15</sub>H<sub>14</sub>O<sub>3</sub> (242.28). Pharm: Antibacterial (phytopathogenic bacteria, *Corynebacterium betae* and *Corynebacterium fascians*); antifungal (*Botrytis cinerea*, ED<sub>50</sub> = 65 μg/mL); aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40 μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4 μmol/L)<sup>[3090]</sup>. Source: GOU SHU *Broussonetia papyrifera*<sup>[3090]</sup>. Ref: 658, 3090.

**5895 4',7-Dihydroxyflavone**

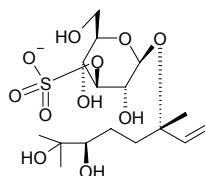
[2196-14-7] C<sub>15</sub>H<sub>10</sub>O<sub>4</sub> (254.24). Source: BAI CI HUA ZI *Sophora vicifolia*, ZHANG GUO GAN CAO *Glycyrrhiza inflata*, YUN NAN GAN CAO *Glycyrrhiza yunnanensis*. Ref: 2, 561, 660.

**5896 5,4'-Dihydroxyflavone-6-C- $\beta$ -D-glycosylrhamnoside-7-O-glycoside**

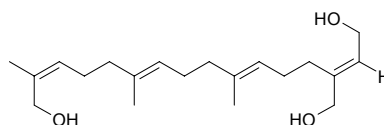
C<sub>33</sub>H<sub>40</sub>O<sub>19</sub> (740.68). mp 194–196°C. Source: HUANG JING *Polygonatum sibiricum*. Ref: 6.

**5897 (3S,6R)-6,7-Dihydroxy-6,7-dihydrolinalool-3-O- $\beta$ -D-(3-O-Potassium sulfo)-glucopyranoside**

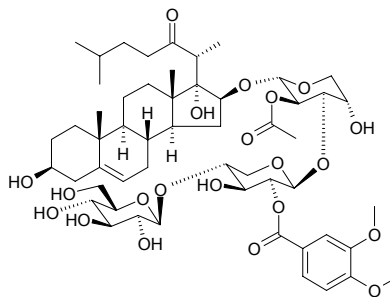
C<sub>16</sub>H<sub>29</sub>O<sub>11</sub>S<sup>-</sup> (429.47). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -14° (c = 0.3, MeOH). Source: HU SUI ZI *Coriandrum sativum*. Ref: 4302.

**5898 (2E,6E,10E,14Z)-17,20-Dihydroxygeranylnerol**

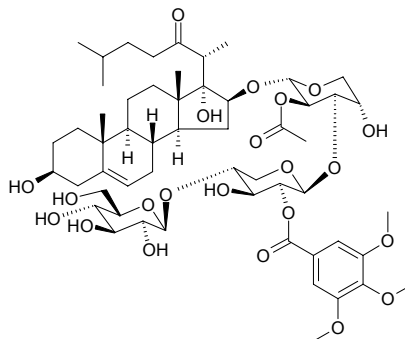
C<sub>20</sub>H<sub>34</sub>O<sub>3</sub> (322.49). Source: ZHONG BIN JU *Tithonia diversifolia* (aerial parts). Ref: 4622.

**5899 3 $\beta$ ,17 $\alpha$ -Dihydroxy-16 $\beta$ -[(O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-(2-O-3,4-dimethoxybenzoyl- $\beta$ -D-xylopyranosyl)-(1 $\rightarrow$ 3)-2-O-acetyl- $\alpha$ -L-arabinopyranosyl)oxy]cholest-5-en-22-one**

C<sub>54</sub>H<sub>80</sub>O<sub>21</sub> (1065.23). Pharm: Cytotoxic (HL-60 cells, IC<sub>50</sub> = 0.016 μmol/L). Source: *Ornithogalum saundersiae* (bulb: yield = 0.00007%). Ref: 3030.

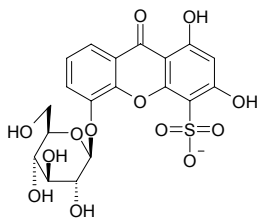
**5900 3 $\beta$ ,-17 $\alpha$ -Dihydroxy-16 $\beta$ -[(O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-(2-O-3,4,5-trimethoxybenzoyl- $\beta$ -D-xylopyranosyl)-(1 $\rightarrow$ 3)-2-O-acetyl- $\alpha$ -L-arabinopyranosyl)oxy]cholest-5-en-22-one**

C<sub>55</sub>H<sub>82</sub>O<sub>22</sub> (1095.25). Pharm: Cytotoxic (HL-60 cells, IC<sub>50</sub> = 0.014 μmol/L). Source: *Ornithogalum saundersiae* (bulb: yield = 0.00011%). Ref: 3030.

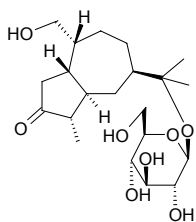


**5901 1,3-Dihydroxy-5-O-β-D-glucopyranosylxanthone-4-sulfonate**

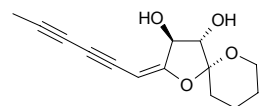
C<sub>19</sub>H<sub>17</sub>O<sub>13</sub>S (485.40). Yellow powder, mp > 360°C, [α]<sub>D</sub><sup>31.2</sup> = +38.10° (c = 0.033, MeOH). **Pharm:** Cytotoxic (P<sub>388</sub> cell line, ED<sub>50</sub> = 15.69 μmol/L; control VP-16, ED<sub>50</sub> = 0.064 μmol/L). **Source:** YUAN BAO CAO *Hypericum sampsonii* (whole herb). **Ref:** 3861.

**5902 (1S,4S,5R,7R,10R)-11,14-Dihydroxyguai-3-one 11-O-β-D-glucopyranoside**

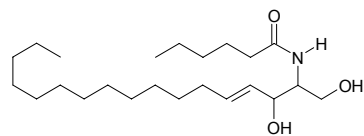
C<sub>21</sub>H<sub>36</sub>O<sub>8</sub> (416.52). Colorless needles (MeOH), mp 98–100°C, [α]<sub>D</sub><sup>22</sup> = +34° (c = 0.5, MeOH). **Source:** CANG ZHU *Atractylodes lancea*, GUAN CANG ZHU *Atractylodes japonica* (fresh rhizome). **Ref:** 4310, 4348.

**5903 (3S\*,4S\*,5R\*)-(E)-3,4-Dihydroxy-2-(hexa-2,4-dienyliden)-1,6-dioxaspiro-(4,5)decane**

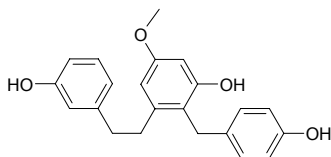
C<sub>14</sub>H<sub>16</sub>O<sub>4</sub> (248.28). [α]<sub>D</sub><sup>24</sup> = -19.8° (c = 0.22, EtOH). **Source:** JIN SE MU JU *Matricaria aurea*. **Ref:** 2301.

**5904 1,3-Dihydroxy-2-hexanoylamino-(4E)-heptadecene**

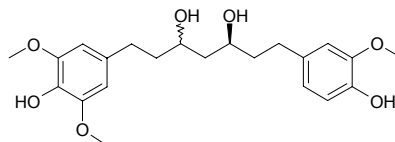
C<sub>23</sub>H<sub>46</sub>NO<sub>3</sub> (383.62). Colorless gummy solid, [α]<sub>D</sub><sup>25</sup> = -19.1° (c = 0.021, pyridine). **Source:** QI ZHOU YI ZHI HAO *Conyza canadensis* [Syn. *Erigeron canadensis*]. **Ref:** 4249.

**5905 3,3'-Dihydroxy-2-(4-hydroxybenzyl)-5-methoxybibenzyl**

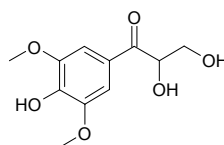
C<sub>22</sub>H<sub>22</sub>O<sub>4</sub> (350.42). Colorless needles. **Pharm:** Antiallergic β-Hexosaminidase inhibitor (rat basophilic RBL-2H3 cells, inhibits release of β-hexosaminidase, 100 μmol/L, InRt = (98.4 ± 1.6) μmol/L, p < 0.01; 300 μmol/L control Ketotifen fumarate, InRt = (72.5 ± 0.9) μmol/L, p < 0.01). **Source:** SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber). **Ref:** 5022.

**5906 (3R,5S)-3,5-Dihydroxy-1-(4-hydroxy-3,5-dimethoxyphenyl)-7-(4-hydroxy-3-methoxyphenyl)heptane**

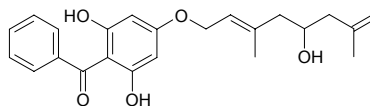
C<sub>22</sub>H<sub>30</sub>O<sub>7</sub> (406.48). Colorless oil, [α]<sub>D</sub><sup>24</sup> = 0° (c = 0.55, CHCl<sub>3</sub>). **Source:** SHENG JIANG *Zingiber officinale*. **Ref:** 3803.

**5907 2,3-Dihydroxy-1-(4-hydroxy-3,5-dimethoxyphenyl)-1-propanone**

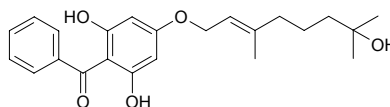
C<sub>11</sub>H<sub>14</sub>O<sub>6</sub> (242.23). Amorphous white powder, [α]<sub>D</sub><sup>25</sup> = 0° (c = 0.5, CHCl<sub>3</sub>). **Source:** TIAN XIAN GUO *Ficus beecheyana* [Syn. *Ficus erecta* var. *beecheyana*] (root: yield = 0.012% dw). **Ref:** 4657.

**5908 2,6-Dihydroxy-4-[(E)-5-hydroxy-3,7-dimethylocta-2,7-dienyloxy]benzophenone**

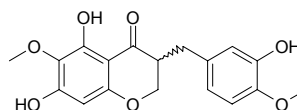
C<sub>23</sub>H<sub>26</sub>O<sub>5</sub> (382.46). Yellow amorphous powder, [α]<sub>D</sub><sup>25</sup> = -20° (c = 0.2, MeOH). **Source:** YUAN BAO CAO *Hypericum sampsonii* (whole herb). **Ref:** 4055.

**5909 2,6-Dihydroxy-4-[(E)-7-hydroxy-3,7-dimethylocta-2-enyloxy]benzophenone**

C<sub>23</sub>H<sub>28</sub>O<sub>5</sub> (384.48). Yellow amorphous powder, [α]<sub>D</sub><sup>25</sup> = +30° (c = 0.3, MeOH). **Source:** YUAN BAO CAO *Hypericum sampsonii* (whole herb). **Ref:** 4055.

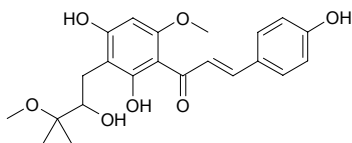
**5910 5,7-Dihydroxy-3-(3-hydroxy-4-methoxybenzyl)-6-methoxychroman-4-one**

C<sub>18</sub>H<sub>18</sub>O<sub>7</sub> (346.34). [α]<sub>D</sub><sup>20</sup> = -16.0° (c = 0.20, MeOH). **Pharm:** Angiogenesis inhibitor (IC<sub>50</sub> = 0.5 μg/mL, control Retinoic acid, IC<sub>50</sub> = 0.3 μg/mL). **Source:** DU JUAN LAN *Cremastra appendiculata* (bulb). **Ref:** 4937.



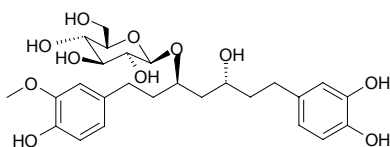
**5911 1-[2,4-Dihydroxy-3-(3-hydroxy-2-methoxy-3-methylbutyl)-6-methoxyphenyl]-3-(4-hydroxyphenyl)propenone**

$C_{22}H_{26}O_7$  (402.45). Yellow powder. **Pharm:** Anti-inflammatory (NO production inhibitor, *in vitro*, macrophage RAW264.7 cells, induced by LPS/IFN- $\gamma$ ,  $IC_{50} = 6.5\mu\text{mol/L}$ , without showing cytotoxicity at concentrations lower than  $10\mu\text{mol/L}$ , cell viability > 95%). **Source:** PI JIU HUA *Humulus lupulus* (strobile). **Ref:** 4795.



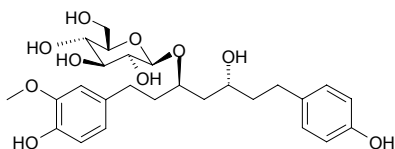
**5912 (3R,5R)-3,5-Dihydroxy-1-(4-hydroxy-3-methoxyphenyl)-7-(3,4-dihydroxyphenyl)heptane 3-O- $\beta$ -D-glucopyranoside**

$C_{26}H_{36}O_{11}$  (524.57). Amorphous solid,  $[\alpha]_D^{25} = -16.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 4.5\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 209\mu\text{g/mL}$ ; HGF,  $IC_{50} > 250\mu\text{g/mL}$ ; control Etoposide: HL-60,  $IC_{50} = 0.2\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 24\mu\text{g/mL}$ ; HGF,  $IC_{50} > 200\mu\text{g/mL}$ ). **Source:** JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.0013%dw). **Ref:** 4609.



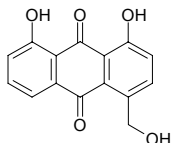
**5913 (3R,5R)-3,5-Dihydroxy-1-(4-hydroxy-3-methoxyphenyl)-7-(4-hydroxyphenyl)heptane 3-O- $\beta$ -D-glucopyranoside**

$C_{26}H_{36}O_{10}$  (508.57). Amorphous solid,  $[\alpha]_D^{25} = -2.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HL-60,  $IC_{50} > 10\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 160\mu\text{g/mL}$ ; HGF,  $IC_{50} > 250\mu\text{g/mL}$ ; control Etoposide: HL-60,  $IC_{50} = 0.2\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 24\mu\text{g/mL}$ ; HGF,  $IC_{50} > 200\mu\text{g/mL}$ ). **Source:** JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.0020%dw). **Ref:** 4609.



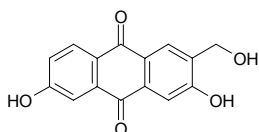
**5914 1,8-Dihydroxy-4-hydroxymethyl anthraquinone**

$C_{15}H_{10}O_5$  (270.24). **Source:** LEI GONG TENG *Tripterygium wilfordii*. **Ref:** 2.



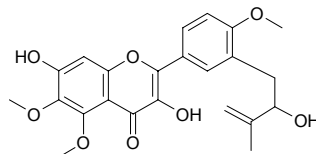
**5915 3,6-Dihydroxy-2-hydroxymethyl-9,10-anthraquinone**

$C_{15}H_{10}O_5$  (270.24). Yellow powder. **Source:** MA LAI BAN DAO RAN MU SHU *Saprosma scortechinii* (stem and leaf). **Ref:** 4219.



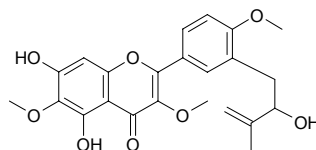
**5916 3,7-Dihydroxy-3'-(2-hydroxy-3-methyl-3-butenyl)-5,6,4'-trimethoxyflavone**

$C_{23}H_{24}O_8$  (428.44). Yellow gummy solid,  $[\alpha]_D^{25} = +33.3^\circ$  ( $c = 0.03$ , MeOH). **Pharm:** Prolyl endopeptidase inhibitor (flavobacterium origin,  $IC_{50} = (233\pm 0.003)\mu\text{mol/L}$ , control Z-pro-prolinal,  $IC_{50} = (0.884\pm 0.025)\mu\text{mol/L}$ )<sup>[4179]</sup>; thrombin inhibitor inactive (bovine source, control Leupeptin,  $IC_{50} = (45.4\pm 0.03)\mu\text{mol/L}$ ). **Source:** JIA LIAN QIAO *Duranta repens* (whole herb). **Ref:** 4179.



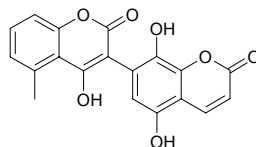
**5917 5,7-Dihydroxy-3'-(2-hydroxy-3-methyl-3-butenyl)-3,6,4'-trimethoxyflavone**

$C_{23}H_{24}O_8$  (428.44). Yellow gummy solid,  $[\alpha]_D^{25} = +18.5^\circ$  ( $c = 0.05$ , MeOH). **Pharm:** Prolyl endopeptidase inhibitor (flavobacterium origin,  $IC_{50} = (450\pm 0.02)\mu\text{mol/L}$ , control Z-pro-prolinal,  $IC_{50} = (0.884\pm 0.025)\mu\text{mol/L}$ ); thrombin inhibitor inactive (bovine source, control Leupeptin,  $IC_{50} = (45.4\pm 0.03)\mu\text{mol/L}$ ). **Source:** JIA LIAN QIAO *Duranta repens* (whole herb). **Ref:** 4179.



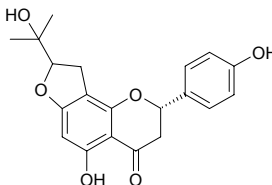
**5918 5,8-Dihydroxy-7-(4-hydroxy-5-methyl-coumarin-3)-coumarin**

$C_{19}H_{12}O_7$  (352.30). Light pink granular crystals, mp > 300°C. **Source:** DA DING CAO *Gerbera anandria* [Syn. *Leibnitzia anandria*]. **Ref:** 141.



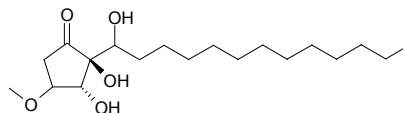
**5919 5,4'-Dihydroxy-[2''-(1-hydroxy-1-methylethyl)dihydrofurano]- (7,8:5'',4'')flavanone**

$C_{20}H_{20}O_6$  (356.38). Pale yellow solid,  $[\alpha]_D^{20} = -99^\circ$  ( $c = 0.1$ , MeOH). **Source:** ZHEN YE XUE TONG *Macaranga conifera*. **Ref:** 1929.



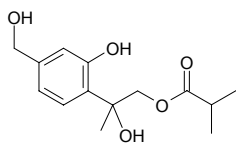
**5920 2,3-Dihydroxy-2-(1-hydroxytridecyl)-4-methoxycyclopentanone**

$C_{19}H_{36}O_5$  (344.50). **Source:** *Hygrophorus personii*. **Ref:** 3800.

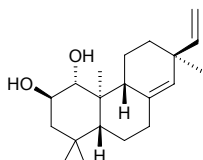


**5921 7,8-Dihydroxy-isobutyryl-thymol**

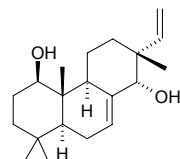
$C_{14}H_{20}O_5$  (268.31). Straw yellow oil. Source: XIAN MAI XUAN FU HUA *Inula nervosa*. Ref: 795.

**5922 (1R,2R)-ent-1,2-Dihydroxyisopimara-8(14),15-diene**

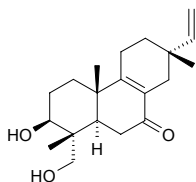
$C_{20}H_{32}O_2$  (304.48). Crystals, mp 132~133°C,  $[\alpha]_D^{20} = -16.5^\circ$  ( $c = 2.51$ ). Source: JI RUAN RONG TAI *Trichocolea mollissima*. Ref: 3489.

**5923 1β,14α-Dihydroxyisopimara-7,15-diene**

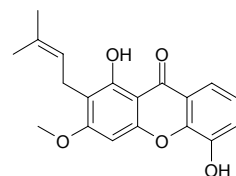
$C_{20}H_{32}O_2$  (304.48). Amorphous powder,  $[\alpha]_D = -16.0^\circ$  ( $c = 0.6$ ,  $CHCl_3$ ). Pharm: Antifungal (TLC bioautographic assay, plant pathogenic fungus *Cladosporium cucumerinum*, MA = 25-50 μg, yeast *Candida albicans*, MA = 25-50 μg). Source: PU FU QIANG DAO YAO *Hypoestes serpens*. Ref: 3438.

**5924 3β,19-Dihydroxy-8(9),15-isopimaradien-7-one**

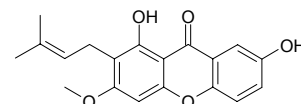
$C_{20}H_{30}O_3$  (318.46). Colorless oil,  $[\alpha]_D^{25} = +52^\circ$  ( $c = 0.06$ ,  $CHCl_3$ ). Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platyclusus orientalis*; *Biota orientalis*] (branch). Ref: 3022.

**5925 1,5-Dihydroxy-2-isoprenyl-3-methoxyxanthone**

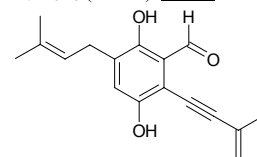
1,5-Dihydroxy-3-methoxy-2-(3-methylbut-2-enyl)-xanthone  $C_{19}H_{18}O_5$  (326.35). Pharm: Antibacterial inactive (MRSA). Source: DAO NIAN ZI *Garcinia mangostana* (fruit hull), HEI XIAN TIAO TENG HUANG *Garcinia nigrolineata* (leaf: yield = 0.0008%dw). Ref: 3066, 4735.

**5926 1,7-Dihydroxy-2-isoprenyl-3-methoxyxanthone**

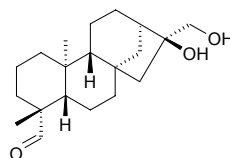
1,7-Dihydroxy-3-methoxy-2-(3-methylbut-2-enyl)xanthone  $C_{19}H_{18}O_5$  (326.35). Pharm: Antioxidant (DPPH scavenger, 10 μmol/L, ScRt = 15%, control BHT, 10 μmol/L, ScRt = 43%)<sup>[5319]</sup>; antibacterial inactive (MRSA)<sup>[4735]</sup>; cytotoxic (*in vitro*, HL-60, IC<sub>50</sub> = 23.6 μmol/L)<sup>[4715]</sup>; antitubercular (*Mycobacterium tuberculosis*, MIC > 200 μg/mL, inactive)<sup>[4358]</sup>. Source: DAO NIAN ZI *Garcinia mangostana* (fruit), DAO NIAN ZI *Garcinia mangostana* (fruit hull), HEI XIAN TIAO TENG HUANG *Garcinia nigrolineata* (leaf: yield = 0.0001%dw), TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). Ref: 3066, 4422, 4358, 4715, 4735, 5319.

**5927 2,5-Dihydroxy-3-isoprenyl-6-(3-methylbut-3-en-1-ynyl)benzaldehyde**

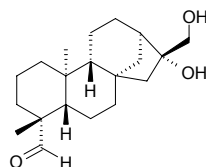
$C_{17}H_{18}O_3$  (270.33). Source: MAO REN GE JUN *Stereum hirsutum*. Ref: 3930.

**5928 16β,17-Dihydroxy-ent-kauran-19-al**

$C_{20}H_{32}O_3$  (320.48). Pharm: Antioxidant (inhibits superoxide anion generation, fMLP/CB, IC<sub>50</sub> = (2.77±1.71) μg/mL, control DPI, IC<sub>50</sub> = (0.13±0.06) μg/mL,  $p < 0.001$ )<sup>[4950]</sup>; platelet aggregation selected inhibitor (washed rabbit platelets, 200 μmol/L: 100 μmol/L AA induced, InRt = 9.6%; 10 μg/mL collagen induced, InRt = 17.6%; 1 ng/mL PAF induced, InRt = 5.5%; 0.05 U/mL thrombin induced, InRt = 0.0%)<sup>[4654]</sup>. Source: FAN LI ZHI *Annona squamosa* (stem: yield = 0.0010%fw). Ref: 4950, 4654.

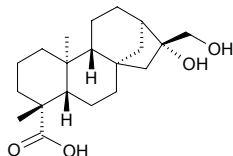
**5929 16α,17-Dihydroxy-ent-kauran-19-al**

$C_{20}H_{32}O_3$  (320.48). Pharm: Platelet aggregation inhibitor inactive (washed rabbit platelets, 200 μmol/L: 100 μmol/L AA induced, InRt = 0.5%; 10 μg/mL collagen induced, InRt = 4.9%; 1 ng/mL PAF induced, InRt = 10.3%; 0.05 U/mL thrombin induced, InRt = 3.2%)<sup>[4654]</sup>; antioxidant (inhibits superoxide anion generation, fMLP/CB, IC<sub>50</sub> = (6.49±3.31) μg/mL, control DPI, IC<sub>50</sub> = (0.13±0.06) μg/mL,  $p < 0.001$ )<sup>[4950]</sup>; antiproliferative and cytotoxic (*in vitro*, L-929, GI<sub>50</sub> = 50 μg/mL; K562, GI<sub>50</sub> = 50 μg/mL; HeLa, CC<sub>50</sub> = 50 μg/mL; control Paclitaxel, L-929, GI<sub>50</sub> = 0.1 μg/mL; K562, GI<sub>50</sub> = 0.01 μg/mL; HeLa, CC<sub>50</sub> = 0.01 μg/mL)<sup>[4770]</sup>. Source: FAN LI ZHI *Annona squamosa* (stem: yield = 0.0012%fw), MU LAN<sup>(3)</sup> *Bruguiera gymnorrhiza* (stem: yield = 0.00011%). Ref: 4654, 4770, 4950.

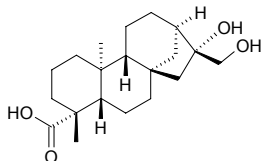


**5930 (-)-16,17-Dihydroxy-16 $\beta$ -kauran-19-oic acid**

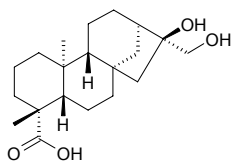
Diterpenoid SP II C<sub>20</sub>H<sub>32</sub>O<sub>4</sub> (336.48). mp 260~262°C. **Pharm:** Antihypertensive (rat, orl, 50mg/(kg·d)); anti-inflammatory (caused by formalin, 300mg/kg orl, regression of edema 38%, caused by protein, 300mg/kg orl, regression of edema 53%); antioxidant (inhibits superoxide anion generation, fMLP/CB, IC<sub>50</sub> = (3.07±0.33)μg/mL, *p*<0.001, control DPI, IC<sub>50</sub> = (0.13±0.06)μg/mL, *p*<0.001)<sup>[4950]</sup>; platelet aggregation inhibitor inactive (washed rabbit platelets, 200μmol/L: 100μmol/L AA induced, InRt = 7.2%; 10μg/mL collagen induced, InRt = 2.3%; 1ng/mL PAF induced, InRt = 8.9%; 0.05U/mL thrombin induced, InRt = 0.4%)<sup>[4654]</sup>. **Source:** JIAO XI XIAN *Siegesbeckia gummifer*, TU DANG GUI *Aralia cordata*, XIAN GENG XI XIAN *Siegesbeckia orientalis* var. *pubescens* [Syn. *Siegesbeckia pubescens*], FAN LI ZHI *Annona squamosa* (stem: yield = 0.00047%fw)<sup>[4654]</sup>. **Ref:** 2, 6, 658, 660, 661, 4654, 4950.

**5931 16 $\alpha$ ,17-Dihydroxy-ent-kauran-19-oic acid**

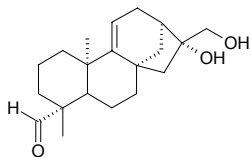
C<sub>20</sub>H<sub>32</sub>O<sub>4</sub> (336.48). **Pharm:** Cytotoxic inactive (Lu1, Col2, KB, LNCaP, hTERT-RPE1, HUVEC; control Taxol, ED<sub>50</sub> = 0.002μg/mL, 0.003μg/mL, 0.0005μg/mL, 0.001μg/mL, 0.004μg/mL, 0.008μg/mL, respectively). **Source:** *Parinari sprucei* (leaf). **Ref:** 4991.

**5932 16 $\beta$ ,17-Dihydroxy-ent-kauran-19-oic acid**

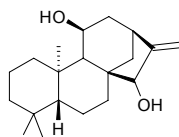
C<sub>20</sub>H<sub>32</sub>O<sub>4</sub> (336.48). **Pharm:** Antioxidant (inhibits superoxide anion generation, fMLP/CB, IC<sub>50</sub> = (0.79±0.14)μg/mL, *p*<0.001, control DPI, IC<sub>50</sub> = (0.13±0.06)μg/mL, *p*<0.001)<sup>[4950]</sup>; platelet aggregation inhibitor inactive (washed rabbit platelets, 200μmol/L: 100μmol/L AA induced, InRt = 14.9%; 10μg/mL collagen induced, InRt = 8.6%; 1ng/mL PAF induced, InRt = 14.4%; 0.05U/mL thrombin induced, InRt = 6.8%)<sup>[4654]</sup>. **Source:** FAN LI ZHI *Annona squamosa* (stem: yield = 0.0013%fw). **Ref:** 4950, 4654.

**5933 16 $\alpha$ ,17-Dihydroxy-ent-9(11)-kauren-19-al**

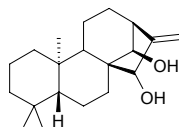
C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). White amorphous solid, [α]<sub>D</sub><sup>20</sup> = +4.8° (*c* = 0.3, CHCl<sub>3</sub>). **Source:** MU LAN<sup>(3)</sup> *Bruguiera gymnorhiza* (stem: yield = 0.00028%) **Ref:** 4770.

**5934 ent-11 $\alpha$ ,15 $\alpha$ -Dihydroxy-16-kaurene**

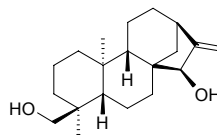
C<sub>20</sub>H<sub>32</sub>O<sub>2</sub> (304.48). **Pharm:** Cytotoxic inactive (hmn leukemia cell HL-60, 10μmol/L). **Source:** JIE XING YE TAI *Jungermannia truncata*. **Ref:** 4201.

**5935 ent-14 $\alpha$ ,15 $\alpha$ -Dihydroxy-16-kaurene**

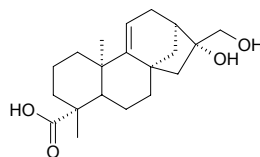
C<sub>20</sub>H<sub>32</sub>O<sub>2</sub> (304.48). Amorphous, [α]<sub>D</sub><sup>22</sup> = -48.5° (*c* = 2.89). **Source:** JIE XING YE TAI *Jungermannia truncata*. **Ref:** 4201.

**5936 ent-15 $\alpha$ ,18-Dihydroxy-16-kaurene**

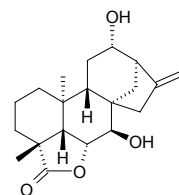
C<sub>20</sub>H<sub>32</sub>O<sub>2</sub> (304.48). White amorphous powder, [α]<sub>D</sub><sup>25</sup> = -76.7° (*c* = 0.20, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (BST test, weak active). **Source:** DONG JIN BA DOU *Croton tonkinensis* (leaf). **Ref:** 4444.

**5937 16 $\alpha$ ,17-Dihydroxy-ent-9(11)-kauren-19-oic acid**

C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). **Source:** MU LAN<sup>(3)</sup> *Bruguiera gymnorhiza* (stem: yield = 0.00075%) **Ref:** 4770.

**5938 7 $\beta$ ,12 $\alpha$ -Dihydroxykaurenolide**

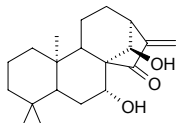
C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). **Pharm:** Plant growth regulator. **Source:** XI HU LU *Cucurbita pepo*. **Ref:** 658.



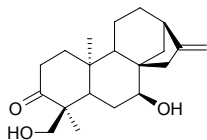


**5939 7 $\alpha$ ,14 $\beta$ -Dihydroxykaur-16-en-15-one**

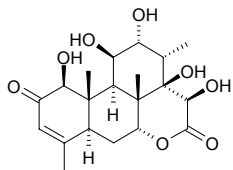
C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). White amorphous powder, mp 200–201°C, [ $\alpha$ ]<sub>D</sub><sup>18</sup> = –10° (*c* = 0.3, CHCl<sub>3</sub>). **Pharm:** Anti-inflammatory (inhibits LPS-induced NF- $\kappa$ B activation in murine macrophage RAW264.7 cells, IC<sub>50</sub> = 0.11  $\mu$ mol/L; control Parthenolide, IC<sub>50</sub> = 2.34  $\mu$ mol/L); NO production inhibitor (IC<sub>50</sub> = 0.26  $\mu$ mol/L; control Parthenolide, IC<sub>50</sub> = 2.01  $\mu$ mol/L). **Source:** DONG JIN BA DOU *Croton tonkinensis* (leaf; yield = 0.00054%dw). **Ref:** 4724.

**5940 ent-7 $\alpha$ ,18-Dihydroxykaur-16-en-3-one**

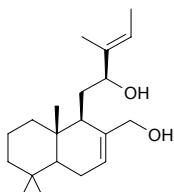
C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). Syrup, [ $\alpha$ ]<sub>D</sub> = –45.8° (*c* = 0.5, CHCl<sub>3</sub>). **Source:** MU ER DU MA CAO *Sideritis moorei* (aerial parts). **Ref:** 5295.

**5941 14 $\beta$ ,15 $\beta$ -Dihydroxyklaineanon**

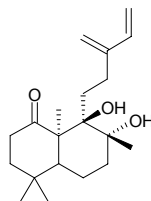
C<sub>20</sub>H<sub>28</sub>O<sub>8</sub> (396.44). **Pharm:** Cytotoxic (KB cells, IC<sub>50</sub> = 0.38  $\mu$ g/mL, P<sub>388</sub> cells, IC<sub>50</sub> = 0.29  $\mu$ g/mL)<sup>[4556]</sup>; plant growth inhibitor (Cucumber seedling, root growth, IC<sub>50</sub> = (2.5 $\pm$ 0.5)  $\mu$ mol/L, shoot growth, IC<sub>50</sub> = (22.7 $\pm$ 0.5)  $\mu$ mol/L; Rice seedling, root growth, IC<sub>50</sub> > 200  $\mu$ mol/L, shoot growth, IC<sub>50</sub> > 200  $\mu$ mol/L)<sup>[5215]</sup>. **Source:** CHANG YE KUAN MU *Eurycoma longifolia* (leaf), *Eurycoma* sp. **Ref:** 4556, 5215.

**5942 12,17-Dihydroxyabda-7,13(E)-diene**

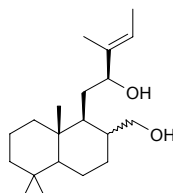
C<sub>20</sub>H<sub>34</sub>O<sub>2</sub> (306.49). mp 109–111°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –7.55° (*c* = 1.06, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, BT474, IC<sub>50</sub> = 2.5  $\mu$ g/mL, control Doxorubicin hydrochloride, IC<sub>50</sub> = 0.08  $\mu$ g/mL; CHAGO, IC<sub>50</sub> = 6.1  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 2.3  $\mu$ g/mL; HepG2, IC<sub>50</sub> = 5.3  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 0.9  $\mu$ g/mL; Kato3, IC<sub>50</sub> = 0.6  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 1.7  $\mu$ g/mL; SW620, IC<sub>50</sub> = 6.1  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 1.1  $\mu$ g/mL). **Source:** GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*]. **Ref:** 5363.

**5943 ent-8 $\alpha$ ,9 $\beta$ -Dihydroxyabda-13(16),14-dien-1-one**

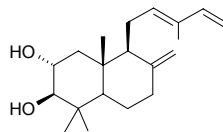
C<sub>20</sub>H<sub>32</sub>O<sub>3</sub> (320.48). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +13.6° (*c* = 0.21, CHCl<sub>3</sub>). **Source:** JIE MAO TAI *Blepharostoma trichophyllum*. **Ref:** 3843.

**5944 12,17-Dihydroxyabda-13(E)-ene**

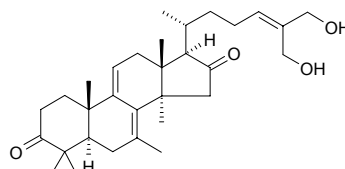
C<sub>20</sub>H<sub>36</sub>O<sub>2</sub> (308.51). mp 161–163°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –15.42° (*c* = 1.18, CHCl<sub>3</sub>). **Pharm:** Cytotoxic inactive (*in vitro*, BT474, CHAGO, HepG2, Kato3, SW620: > 10  $\mu$ g/mL). **Source:** GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*]. **Ref:** 5363.

**5945 2,3-Dihydroxy-labda-8(17),12(E),14-triene**

C<sub>20</sub>H<sub>32</sub>O<sub>2</sub> (304.48). White solid, mp 69–70°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –6.96° (*c* = 1.0, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (Kato3, IC<sub>50</sub> = 2.2  $\mu$ g/mL, control Doxorubicin hydrochloride, IC<sub>50</sub> = 1.7  $\mu$ g/mL; SW620, IC<sub>50</sub> = 2.7  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 1.1  $\mu$ g/mL; BT474, IC<sub>50</sub> = 4.6  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 0.08  $\mu$ g/mL; HepG2, IC<sub>50</sub> = 3.7  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 0.9  $\mu$ g/mL; CHAGO, IC<sub>50</sub> = 3.3  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 2.3  $\mu$ g/mL). **Source:** GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*] (stem cortex). **Ref:** 5121.

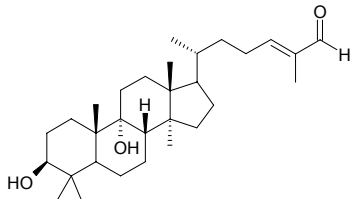
**5946 26,27-Dihydroxy-lanosta-7,9(11),24-trien-3,16-dione**

C<sub>31</sub>H<sub>46</sub>O<sub>4</sub> (482.71). mp 136–139°C. **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 2235.

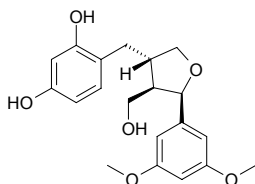


**5947 3 $\beta$ ,9 $\alpha$ -Dihydroxylanost-24-en-26-ol**

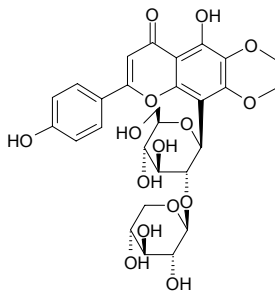
C<sub>30</sub>H<sub>50</sub>O<sub>3</sub> (458.73). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = +5.0° (*c* = 0.003, CHCl<sub>3</sub>). Source: MEI LI TENG HUANG *Garcinia speciosa* (bark). Ref: 3762.

**5948 (7,8-*cis*-8,8'-*trans*)-2',4'-Dihydroxyl-3,5-dimethoxylariciresinol**

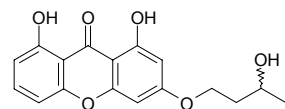
C<sub>20</sub>H<sub>24</sub>O<sub>6</sub> (360.41). Light-brown powder, mp 220–223°C (dec). Source: FEI SHU *Torreya grandis* (aril). Ref: 4836.

**5949 5,4'-Dihydroxyl-6,7-dimethoxyl-8-C-[ $\beta$ -D-xylopyranosyl-(1→2)]- $\beta$ -D-glucopyranosyl flavone**

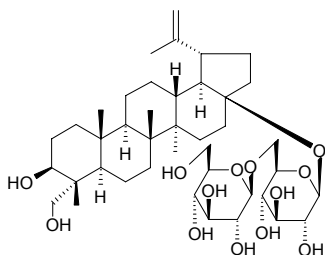
C<sub>28</sub>H<sub>32</sub>O<sub>15</sub> (608.56). Yellow amorphous powder, mp 173–175°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –44.9° (*c* = 0.60, MeOH). Source: SHI DAN CAO *Corallodiscus flabellatus* [Syn. *Didissandra flabellat*] (whole herb). Ref: 4830.

**5950 1,8-Dihydroxy-3-(3'-hydroxy-butoxy) xanthone**

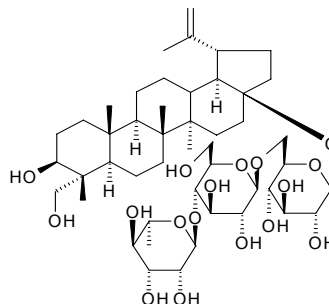
C<sub>17</sub>H<sub>16</sub>O<sub>6</sub> (316.31). Yellow columnar crystals (CHCl<sub>3</sub>–MeOH), mp 269–270°C. Source: CHUAN DONG ZHANG YA CAI *Swertia davidii*. Ref: 2480.

**5951 3 $\beta$ ,23-Dihydroxy-lup-20(29)-ene-28-O- $\beta$ -D-glucopyranosyl-(1→6)- $\beta$ -D-glucopyranoside**

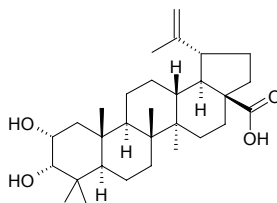
C<sub>41</sub>H<sub>68</sub>O<sub>13</sub> (768.99). Source: BAI TOU WENG *Pulsatilla chinensis*. Ref: 2.

**5952 3 $\beta$ ,23-Dihydroxy-lup-20(29)-ene-28-O- $\alpha$ -L-rhamnopyranosyl-(1→4)- $\beta$ -D-glucopyranosyl-(1→6)- $\beta$ -D-glucopyranoside**

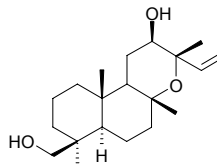
C<sub>47</sub>H<sub>78</sub>O<sub>17</sub> (915.14). Source: BAI TOU WENG *Pulsatilla chinensis*. Ref: 2.

**5953 2 $\alpha$ ,3 $\alpha$ -Dihydroxylup-20(29)-en-28-oic acid**

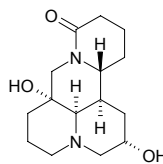
C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). Source: SAN YE MU TONG *Akebia trifoliata* (stem). Ref: 4545.

**5954 12 $\beta$ ,19-Dihydroxymanoyl oxide**

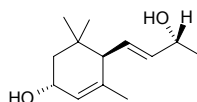
8,13-Epoxy-14-labdene C<sub>20</sub>H<sub>34</sub>O<sub>3</sub> (322.49). Amorphous, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = +13.1° (*c* = 0.21, CHCl<sub>3</sub>). Source: TAI WAN SHAN MU *Cunninghamia konishii* (wood). Ref: 4176.

**5955 5 $\alpha$ ,9 $\alpha$ -Dihydroxymatrine**

[72362-00-6] C<sub>15</sub>H<sub>24</sub>N<sub>2</sub>O<sub>3</sub> (280.37). Source: XI XIAN *Siegesbeckia orientalis*. Ref: 2.

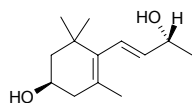
**5956 (3R,6R,7E,9R)-3,9-Dihydroxy-4,7-megastigmadiene**

C<sub>13</sub>H<sub>22</sub>O<sub>2</sub> (210.32). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +25.9° (*c* = 0.53, CH<sub>2</sub>Cl<sub>2</sub>). Pharm: Phytotoxin (inhibits germination and growth of *Lactuca sativa*)<sup>[3776]</sup>. Source: PA KE YE XIANG SHU *Cestrum parqui* (leaf). Ref: 3776.

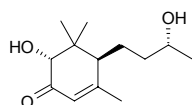


**5957 (3S,7E,9R)-3,9-Dihydroxy-5,7-megastigmadiene**

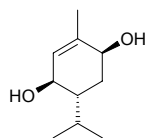
$C_{13}H_{22}O_2$  (210.32). Colorless oil,  $[\alpha]_D^{25} = -97.9^\circ$  ( $c = 0.48$ ,  $CH_2Cl_2$ ). **Pharm:** Phytotoxin (inhibits germination and growth of *Lactuca sativa*). **Source:** PA KE YE XIANG SHU *Cestrum parqui* (leaf). **Ref:** 3776.

**5958 (2R,6R,9R)-2,9-Dihydroxy-4-megastigmen-3-one**

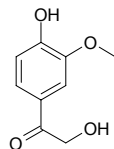
$C_{13}H_{22}O_3$  (226.32). Colorless oil,  $[\alpha]_D^{25} = +102.7^\circ$  ( $c = 0.56$ ,  $CH_2Cl_2$ ). **Pharm:** Phytotoxin (inhibits germination and growth of *Lactuca sativa*). **Source:** PA KE YE XIANG SHU *Cestrum parqui* (leaf). **Ref:** 3776.

**5959 (3R,4R,6S)-3,6-Dihydroxy-1-menthene**

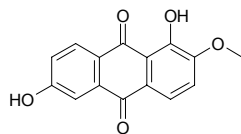
$C_{10}H_{18}O_2$  (170.25). Colorless needles, mp 166–168°C ( $CH_3OH$ ). **Pharm:** Antibacterial (*Staphylococcus aureus*, antibacterial circle < 12mm; *Bacillus subtilis*, antibacterial circle = 13–16mm; *Escherichia coli*, antibacterial circle > 17mm). **Source:** JIAN YE TOU WU GEN *Ligularia sagitta*. **Ref:** 5382.

**5960 2,4'-Dihydroxy-3'-methoxyacetophenone**

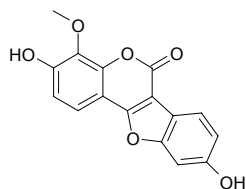
$C_9H_{10}O_4$  (182.18). **Source:** *Eurycoma* sp. **Ref:** 4556.

**5961 1,6-Dihydroxy-2-methoxyanthraquinone**

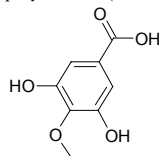
$C_{15}H_{10}O_5$  (270.24). Orange-red needles, mp 178–180°C. **Source:** BA JI TIAN *Morinda officinalis*. **Ref:** 8.

**5962 3,9-Dihydroxy-4-methoxy-benzo[4,5]furo[3,2-c]chromen-6-one**

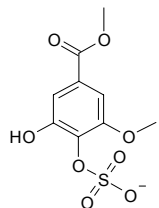
$C_{16}H_{10}O_6$  (298.25). Brown amorphous solid. **Source:** SHUI LIU DOU *Pongamia pinnata* (fruit). **Ref:** 3767.

**5963 3,5-Dihydroxy-4-methoxybenzoic acid**

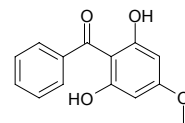
$C_8H_8O_5$  (184.15). **Source:** DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield = 0.0022%dw). **Ref:** 4767.

**5964 3,4-Dihydroxy-5-methoxybenzoic acid methyl ester-4-sulfate**

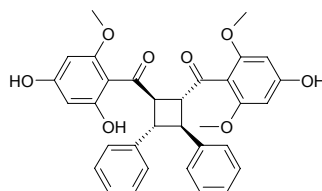
$C_9H_9O_8S$  (277.23). Amorphous powder. **Source:** HU ZHANG *Polygonum cuspidatum*. **Ref:** 4186.

**5965 2,6-Dihydroxy-4-methoxybenzophenone**

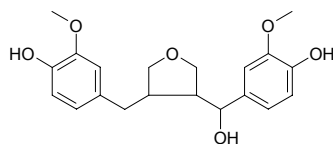
Cotoin  $C_{14}H_{12}O_4$  (244.25). **Source:** DUO ZHI ZHI TENG HUANG *Garcinia virgata* (stem cortex). **Ref:** 3874.

**5966 rel-1β-(4,6-Dihydroxy-2-methoxy)-benzoyl-rel-2α-(2,6-dimethoxy-4-hydroxy)-benzoyl-rel-(3β,4α)-diphenylcyclobutane**

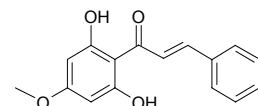
$C_{33}H_{30}O_8$  (554.60). Yellowish amorphous solid, mp 210°C,  $[\alpha]_D^{21} = +19.3^\circ$  ( $c = 0.1$ , MeOH). **Source:** BAI DIAN FENG CHE ZI *Combretum albopunctatum* (aerial parts). **Ref:** 3766.

**5967 3-(α,4-Dihydroxy-3-methoxybenzyl)-4-(hydroxy-3-methoxybenzyl) tetrahydrofuran**

$C_{20}H_{24}O_6$  (360.41). Yellow colloid. **Source:** YUN NAN HAN XIAO *Michelia yunnanensis*. **Ref:** 426.

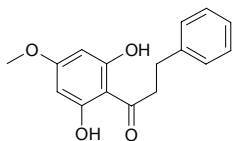
**5968 2',6'-Dihydroxy-4'-methoxychalcone**

$C_{16}H_{14}O_4$  (270.29). mp 161–162°C. **Source:** ZHEN CAI *Litsea pungens*. **Ref:** 6.

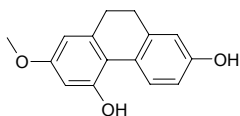


**5969 2',6'-Dihydroxy-4'-methoxydihydrochalcone**

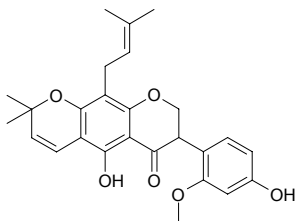
$C_{16}H_{16}O_4$  (272.30). **Pharm:** Germination inhibitor (spores of *Pityrogramma calomelanos*, 50 $\mu$ mol/L). **Source:** DIAO ZHANG GEN PI *Lindera umbellata* [Syn. *Lindera erythrocarpa*], LIU HUANG TIE XIAN JUE *Adiantum sulphureum*, *Notholaena* sp. **Ref:** 658.

**5970 4,7-Dihydroxy-2-methoxy-9,10-dihydro-phenanthrene**

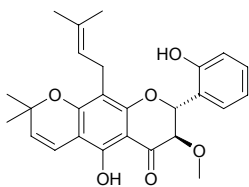
$C_{15}H_{14}O_3$  (242.28). **Source:** MI HUA SHI HU *Dendrobium densiflorum* (stem). **Ref:** 5171.

**5971 5,4'-Dihydroxy-2'-methoxy-8-(3,3-dimethylallyl)-2'',2''-dimethylpyrano[5,6:6,7]isoflavanone**

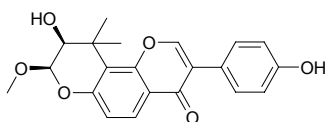
$C_{26}H_{28}O_6$  (436.51). Yellow oil,  $[\alpha]_D^{20} = 7.6^\circ$  ( $c = 0.1$ , MeOH). **Source:** CI TONG *Erythrina variegata* [Syn. *Erythrina indica*] (stem cortex: yield = 0.00001%fw). **Ref:** 2269.

**5972 5,2'-Dihydroxy-3-methoxy-6,7-(2'',2''-dimethylchromene)-8-(3''',3'''-dimethylallyl)-flavanone**

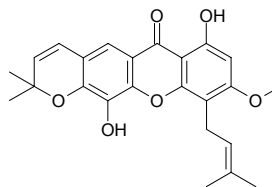
Jayacanol 3-methyl ether  $C_{26}H_{28}O_6$  (436.51). Pale yellow crystals (methanol), mp 128.8–129.2°C,  $[\alpha]_D^{20} = -12.69^\circ$  ( $c = 0.670$ ,  $CH_2Cl_2$ ). **Source:** *Lonchocarpus atropurpureus*. **Ref:** 2423.

**5973 4',5''-Dihydroxy-6''-methoxy-4'',4''-dimethyl-4'',5''-dihydro-6''H-pyrano[2'',3'':7,8]-isoflavone**

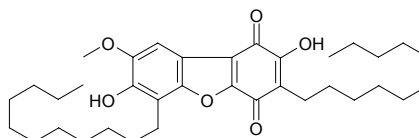
$C_{21}H_{20}O_6$  (368.39). White amorphous powder, mp 226–228°C,  $[\alpha]_D^{25} = -12^\circ$  ( $c = 0.05$ , MeOH). **Pharm:** Cytotoxic (KB,  $IC_{50} > 75\mu$ mol/L, control Helenalin,  $IC_{50} = (0.64 \pm 0.08)\mu$ mol/L, Melphalan,  $IC_{50} = (6.0 \pm 0.5)\mu$ mol/L; Mono-Mac-6,  $IC_{50} > 75\mu$ mol/L, Helenalin,  $IC_{50} = (3.1 \pm 0.3)\mu$ mol/L; Jurkat-T,  $IC_{50} > 75\mu$ mol/L, Helenalin,  $IC_{50} = (1.14 \pm 0.08)\mu$ mol/L, Melphalan,  $IC_{50} = (9.1 \pm 0.8)\mu$ mol/L). **Source:** *Bituminaria morisiana* (leaf). **Ref:** 5077.

**5974 1,5-Dihydroxy-3-methoxy-6',6'-dimethyl-2H-pyrano(2',3':6,7)-4-(3-methylbut-2-enyl)xanthone**

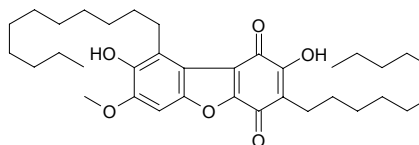
$C_{24}H_{24}O_6$  (408.46). Yellow needles, mp 217–218°C. **Source:** YUN NAN SHAN ZHU ZI *Garcinia cowa* (stem: yield = 0.0008%dw). **Ref:** 916.

**5975 2,7-Dihydroxy-8-methoxy-3,6-diundecyldibenzofuran-1,4-dione**

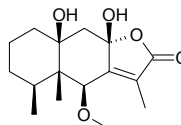
$C_{35}H_{52}O_6$  (568.8). Dark red solid ( $CHCl_3$ ), mp 65–66°C. **Pharm:** Cytotoxic inactive (*in vitro*, HL-60,  $IC_{50} > 100\mu$ g/mL; Bel7402,  $IC_{50} > 100\mu$ g/mL; HeLa,  $IC_{50} > 100\mu$ g/mL; U937,  $IC_{50} > 100\mu$ g/mL; control Colchicine, HL-60,  $IC_{50} = 1.6\mu$ g/mL; Bel7402,  $IC_{50} = 0.4\mu$ g/mL; HeLa,  $IC_{50} = 0.1\mu$ g/mL; U937,  $IC_{50} = 0.1\mu$ g/mL). **Source:** LA ZHU GUO *Aegicerias corniculatum* (stem and twig: yield = 0.000058%). **Ref:** 4746.

**5976 2,8-Dihydroxy-7-methoxy-3,9-diundecyldibenzofuran-1,4-dione**

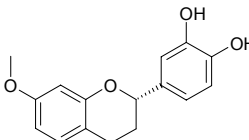
$C_{35}H_{52}O_6$  (568.8). Dark red solid ( $CHCl_3$ ), mp 88–89°C. **Pharm:** Cytotoxic inactive (*in vitro*, HL-60,  $IC_{50} > 100\mu$ g/mL; Bel7402,  $IC_{50} > 100\mu$ g/mL; HeLa,  $IC_{50} > 100\mu$ g/mL; U937,  $IC_{50} > 100\mu$ g/mL; control Colchicine, HL-60,  $IC_{50} = 1.6\mu$ g/mL; Bel7402,  $IC_{50} = 0.4\mu$ g/mL; HeLa,  $IC_{50} = 0.1\mu$ g/mL; U937,  $IC_{50} = 0.1\mu$ g/mL). **Source:** LA ZHU GUO *Aegicerias corniculatum* (stem and twig: yield = 0.000058%). **Ref:** 4746.

**5977 8β,10β-Dihydroxy-6β-methoxyeremophil-7(11)-en-12,8α-olide**

$C_{16}H_{24}O_5$  (296.37). Colorless plates, mp 181–182°C ( $Me_2CO$ ). **Source:** JIAN YE TOU WU GEN *Ligularia sagitta*. **Ref:** 5382.

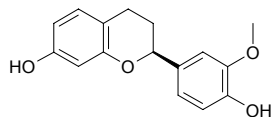
**5978 (2S,3',4')-Dihydroxy-7-methoxy flavan**

$C_{16}H_{16}O_4$  (272.30). Amorphous powder. **Source:** LIN JING ZHONG ZI WEN SHU LAN *Crinum bulbispermum* (bulb). **Ref:** 3997.

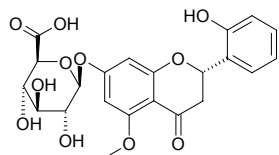


**5979 (2S)-4',7-Dihydroxy-3'-methoxyflavan**

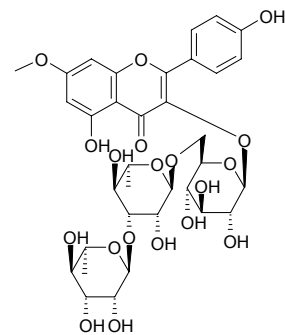
$C_{16}H_{16}O_4$  (272.30). Source: LONG XUE SHU *Dracaena draco* (stem cortex). Ref: 4696.

**5980 (2S)-7,2'-Dihydroxy-5-methoxyflavanone 7-O-β-D-glucuronopyranoside**

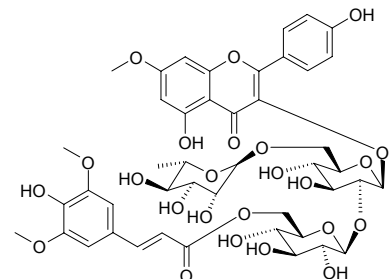
$C_{22}H_{22}O_{11}$  (462.41). Colorless needles (MeOH), mp 190–191°C (dec),  $[\alpha]_D^{25} = -116.8^\circ$  ( $c = 0.052$ , MeOH). Source: KE AI HUANG QIN *Scutellaria amabilis* (root: yield = 0.0052%dw). Ref: 2072.

**5981 5,4'-Dihydroxy-7-methoxyflavone-3-O-[α-L-rhamnopyranosyl(1→3)-O-α-L-rhamnopyranosyl(1→6)-O-β-D-glucopyranoside]**

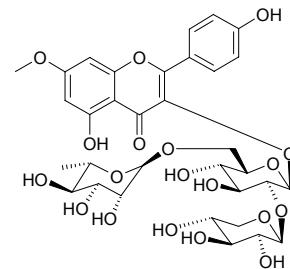
$C_{34}H_{42}O_{19}$  (754.70). Yellow powder, mp 210–212°C,  $[\alpha]_D^{20} = -41.99^\circ$  ( $c = 0.5$ , MeOH). Pharm: Inhibitory activity against NFAT transcription ( $IC_{50} > 100\mu\text{mol/L}$ , control Cyclosporin A,  $IC_{50} = (0.29 \pm 0.01)\mu\text{mol/L}$ ). Source: HUA CHA BIAO *Ribes fasciculatum* var. *chinense*. Ref: 2536.

**5982 4',5-Dihydroxy-7-methoxyflavonol 3-O-[6-O-(E)-3,5-dimethoxy-4-hydroxycinnamoyl-beta-D-glucopyranosyl(1→2)-O-alpha-L-rhamnopyranosyl(1→6)]-beta-D-glucopyranoside**

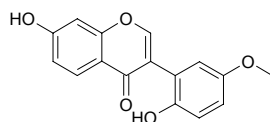
$C_{45}H_{52}O_{24}$  (976.9). Pale-yellow amorphous powder,  $[\alpha]_D^{24} = -29.2^\circ$  ( $c = 0.26$ ,  $\text{CHCl}_3\text{-MeOH}$ , 1:1). Pharm: Cytotoxic inactive (HSC-2, HGF). Source: YE XIANG SHU *Cestrum nocturnum* (leaf: yield = 0.0062%fw). Ref: 3023.

**5983 4',5-Dihydroxy-7-methoxyflavonol 3-O-β-D-xylopyranosyl-(1→2)-O-[α-L-rhamnopyranosyl-(1→6)]-β-D-glucopyranoside**

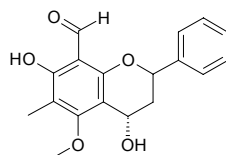
$C_{33}H_{40}O_{19}$  (740.68). Pale-yellow amorphous powder,  $[\alpha]_D^{24} = -47.6^\circ$  ( $c = 0.21$ ,  $\text{CHCl}_3\text{-MeOH}$ , 1:1). Pharm: Cytotoxic inactive (HSC-2, HGF). Source: YE XIANG SHU *Cestrum nocturnum* (leaf: yield = 0.0044%fw). Ref: 3023.

**5984 7,6'-Dihydroxy-3'-methoxyisoflavone**

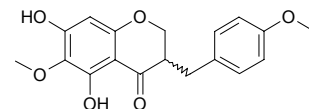
$C_{16}H_{12}O_5$  (284.27). Yellowish crystals ( $\text{Me}_2\text{CO}$ ), mp 250–252°C. Source: TU FU LING *Smilax glabra*. Ref: 416.

**5985 4,7-Dihydroxy-5-methoxyl-6-methyl-8-formyl-flavan**

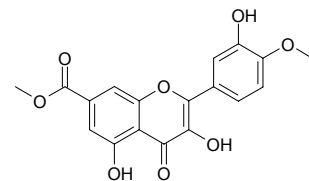
$C_{18}H_{18}O_5$  (314.34). Yellowish rhomboid crystals, mp 137–139°C. Source: JIA YING ZHAO *Desmos cochinchinensis* [Syn. *Desmos chinensis*]. Ref: 121.

**5986 5,7-Dihydroxy-6-methoxy-3-(4-methoxybenzyl)chroman-4-one**

$C_{18}H_{18}O_6$  (330.34). Yellow vitreous solid,  $[\alpha]_D = -100^\circ$  ( $c = 0.025$ , MeOH). Source: *Scilla dracomontana*. Ref: 2327.

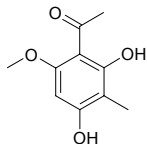
**5987 5,3'-Dihydroxy-4'-methoxy-7-methoxycarbonylflavonol**

$C_{18}H_{14}O_8$  (358.31). Pharm: NO production inhibitor (LPS-induced, concentration-dependent manner,  $IC_{50} = 61.6\mu\text{mol/L}$  or  $40.4\mu\text{mol/L}$ );  $\text{PGE}_2$  production inhibitor (LPS-induced, concentration-dependent manner,  $IC_{50} = 32.8\mu\text{mol/L}$  or  $30.3\mu\text{mol/L}$ ). Source: XIAO YE JU HAO *Tanacetum microphyllum* (aerial parts). Ref: 4918.

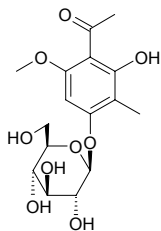


**5988 2,4-Dihydroxy-6-methoxy-3-methylacetophenone**

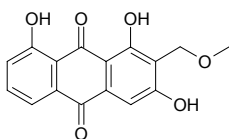
$C_{10}H_{12}O_4$  (196.20). Light brown acicular crystals, mp 190°C. Source: YUE XIAN DA JI *Euphorbia ebracteolata*. Ref: 678.

**5989 2,4-Dihydroxy-6-methoxy-3-methylacetophenone-4-O-β-D-glucopyranoside**

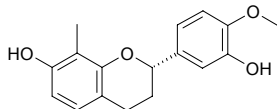
$C_{16}H_{22}O_9$  (358.35). Hoar acicular crystals, mp 198°C. Source: YUE XIAN DA JI *Euphorbia ebracteolata*. Ref: 678.

**5990 1,3-Dihydroxy-2-methoxymethylanthraquinone**

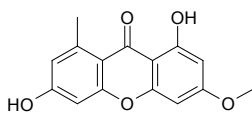
$C_{16}H_{12}O_6$  (300.27). Source: GUANG JING QIAN CAO *Rubia wallichiana* (stem). Ref: 4369.

**5991 7,3'-Dihydroxy-4'-methoxy-8-methylflavan**

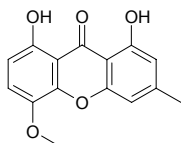
[87733-81-1]  $C_{17}H_{18}O_4$  (286.33). Pharm: Larvacide (larva of *Eurema hecabe mandarina*, antifeedant). Source: LONG XUE SHU *Dracaena draco* (stem cortex)<sup>[4696]</sup>, SHI SUAN *Lycoris radiata* [Syn. *Amaryllis radiata*]. Ref: 658, 4696.

**5992 1,6-Dihydroxy-3-methoxy-8-methylxanthone**

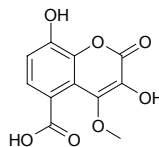
$C_{15}H_{12}O_5$  (272.26). Yellow powder, mp 210–212°C (dec). Source: HE CAO YE JIA BEI FANG FENG *Ledebouria graminifolia* (tuber). Ref: 3368.

**5993 1,8-Dihydroxy-5-methoxy-3-methylxanthone**

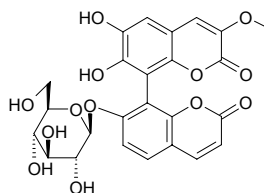
$C_{15}H_{12}O_5$  (272.26). Yellow needles (CHCl<sub>3</sub>), mp.214–215°C. Source: RI BEN XIAO HE YI *Pyrenula japonica*. Ref: 2362.

**5994 3,8-Dihydroxy-4-methoxy-2-oxo-2H-1-benzopyran-5-carboxylic acid**

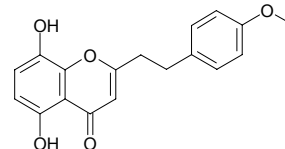
$C_{11}H_8O_7$  (252.18). Yellowish acicular crystals, mp 277–279°C. Source: DA DING CAO *Gerbera anandria* [Syn. *Leibnitzia anandria*]. Ref: 141.

**5995 6,7-Dihydroxy-3-methoxy-8-[2-oxo-2H-1-benzopyran-7-(O-β-D-glucopyranosyl)-8-yl]-2H-1-benzopyran-2-one**

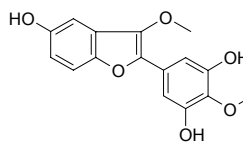
Gulsamanin  $C_{25}H_{22}O_{13}$  (530.45). mp 192–193°C. Source: YOU RUI XIANG *Daphne oleoides*. Ref: 2278.

**5996 5,8-Dihydroxy-2-[2-(4'-methoxyphenyl) ethyl]chromone**

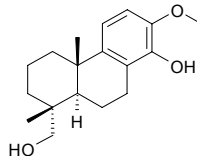
$C_{18}H_{16}O_5$  (312.33). Colorless acicular crystals, mp 172–180°C. Source: BAI MU XIANG *Aquilaria sinensis*. Ref: 13.

**5997 2-(3',5'-Dihydroxy-4'-methoxyphenyl)-3-methoxy-5-hydroxy benzofuran**

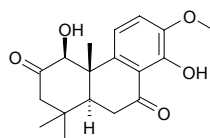
$C_{11}H_{14}O_6$  (302.29). Colorless acicular, mp 219–221°C. Source: XIAO YE MAI MA TENG *Gnetum parvifolium* [Syn. *Gnetum indicum*]. Ref: 193.

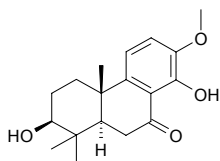
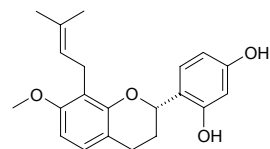
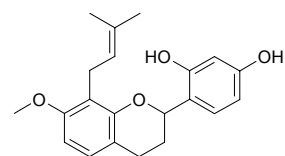
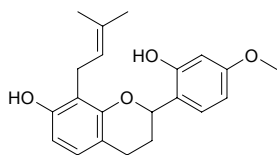
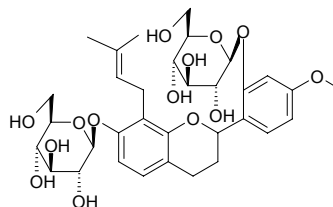
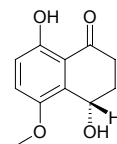
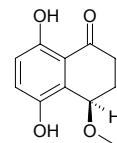
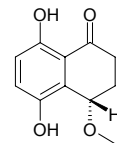
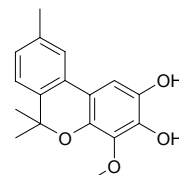
**5998 14,18-Dihydroxy-13-methoxy-8,11,13-podocarpatriene**

$C_{18}H_{26}O_3$  (290.41). Yellow amorphous solid,  $[\alpha]_D^{18} = +5.3^\circ$  ( $c = 0.42$ , CHCl<sub>3</sub>). Source: TAI WAN SHAN *Taiwania cryptomerioides* (bark). Ref: 4182.

**5999 1β,14-Dihydroxy-13-methoxy-8,11,13-podocarpatriene-2,7-dione**

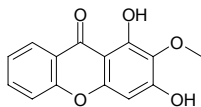
$C_{18}H_{22}O_5$  (318.37). Yellow amorphous solid,  $[\alpha]_D^{24} = -35.0^\circ$  ( $c = 0.17$ , CHCl<sub>3</sub>). Source: TAI WAN SHAN *Taiwania cryptomerioides* (bark). Ref: 4182.



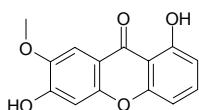
**6000 3 $\beta$ ,14-Dihydroxy-13-methoxy-8,11,13-podocarpatrien-7-one**C<sub>18</sub>H<sub>24</sub>O<sub>4</sub> (304.39). Yellow amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -9.4° (c = 0.35, CHCl<sub>3</sub>).Source: TAI WAN SHAN *Taiwania cryptomerioides* (bark). Ref: 4182.**6001 (2S)-2',4'-Dihydroxy-7-methoxy-8-prenylflavan**C<sub>21</sub>H<sub>24</sub>O<sub>4</sub> (340.42). Pharm: Aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40 μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4 μmol/L). Source: GOU SHU *Broussonetia papyrifera*. Ref: 3090.**6002 2',4'-Dihydroxy-7-methoxy-8-prenylflavan**C<sub>21</sub>H<sub>24</sub>O<sub>4</sub> (340.42). Amorphous powder, [ $\alpha$ ]<sub>D</sub> = -1.6° (c = 1.0, MeOH). Pharm: Antioxidant (hmn LDL, inhibits CuSO<sub>4</sub>-induced oxidation of hmn LDL, 0.5 nmol/mL, relative lag time = 0.81 ± 0.10, positive control Quercetin, 0.5 nmol/mL, assigned relative lag time = 1.0)<sup>[3507]</sup>; DPPH scavenger (IC<sub>50</sub> = 603 nmol/mL, positive control Quercetin, IC<sub>50</sub> = 3.7 nmol/mL)<sup>[3507]</sup>. Source: SANG BAI PI *Morus alba*, SANG YE *Morus alba* (leaf: yield = 0.0003%). Ref: 2513, 3507.**6003 2',7-Dihydroxy-4'-methoxy-8-prenylflavan**C<sub>21</sub>H<sub>24</sub>O<sub>4</sub> (340.42). Amorphous powder, [ $\alpha$ ]<sub>D</sub> = -5.5° (c = 1.0, MeOH). Pharm: Antioxidant (hmn LDL, inhibits CuSO<sub>4</sub>-induced oxidation of hmn LDL, 0.5 nmol/mL, relative lag time = 1.70 ± 0.25, positive control Quercetin, 0.5 nmol/mL, assigned relative lag time = 1.0)<sup>[3507]</sup>; DPPH scavenger (IC<sub>50</sub> = 137 nmol/mL, positive control Quercetin, IC<sub>50</sub> = 3.7 nmol/mL)<sup>[3507]</sup>. Source: SANG YE *Morus alba* (leaf: yield = 0.0018%), SANG BAI PI *Morus alba*. Ref: 2513, 3507.**6004 2',7-Dihydroxy-4'-methoxy-8-prenylflavan 2',7-di-O-β-D-glucopyranoside**C<sub>33</sub>H<sub>44</sub>O<sub>14</sub> (664.71). Amorphous powder, [ $\alpha$ ]<sub>D</sub> = -91.1° (c = 0.25, MeOH). Pharm: Antioxidant (hmn LDL, inhibits CuSO<sub>4</sub>-induced oxidation of hmn LDL, 10.0 nmol/mL, relative lag time = 0.85 ± 0.07, positive control Quercetin, 0.5 nmol/mL, assigned relative lag time = 1.0)<sup>[3507]</sup>; DPPH scavenger (IC<sub>50</sub> = 505 nmol/mL, positive control Quercetin, IC<sub>50</sub> = 3.7 nmol/mL)<sup>[3507]</sup>. Source: SANG YE *Morus alba* (leaf: yield = 0.0013%), SANG BAI PI *Morus alba*. Ref: 3507, 2513.**6005 (4S)-4,8-Dihydroxy-5-methoxy-α-tetralone**C<sub>11</sub>H<sub>12</sub>O<sub>4</sub> (208.22). Source: DONG BEI HU TAO *Juglans mandshurica* var. *sieboldiana* (fruit). Ref: 4492.**6006 (4R)-5,8-Dihydroxy-4-methoxy-α-tetralone**C<sub>11</sub>H<sub>12</sub>O<sub>4</sub> (208.22). Amorphous powder, [ $\alpha$ ]<sub>D</sub> = 0° (CHCl<sub>3</sub>). Source: DONG BEI HU TAO *Juglans mandshurica* var. *sieboldiana* (fruit). Ref: 4492.**6007 (4S)-5,8-Dihydroxy-4-methoxy-α-tetralone**C<sub>11</sub>H<sub>12</sub>O<sub>4</sub> (208.22). Amorphous powder, [ $\alpha$ ]<sub>D</sub> = 0° (CHCl<sub>3</sub>). Source: DONG BEI HU TAO *Juglans mandshurica* var. *sieboldiana* (fruit). Ref: 4492.**6008 2,3-Dihydroxy-4-methoxy-6,6,9-trimethyl-6H-dibenzo[b,d]pyran**C<sub>17</sub>H<sub>17</sub>O<sub>4</sub> (286.33). Oil. Pharm: Anti-HIV-1 (binds to chemokine receptor CCR5, IC<sub>50</sub> = 33 μmol/L). Source: *Wigandia urens* (stem). Ref: 3474.

**6009 1,3-Dihydroxy-2-methoxy xanthone**

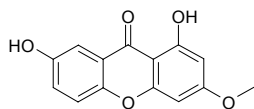
$C_{14}H_{10}O_5$  (258.23). Colorless acicular crystals (chloroform–methanol), mp 162–164°C, mp 174–176°C, mp 176–178°C. Source: HUANG HUA YUAN ZHI *Polygala arillata*, JIA HUANG HUA YUAN ZHI *Polygala fallax* [Syn. *Polygala aureocauda*] (root and stem: yield = 0.00043%)<sup>[4683]</sup>. Ref: 382, 4683.

**6010 1,6-Dihydroxy-7-methoxyxanthone**

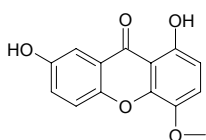
$C_{14}H_{10}O_5$  (258.23). Pharm: Cytotoxic ( $P_{388}$  ED<sub>50</sub> = 3.02 μg/mL, control Mithramycin ED<sub>50</sub> = 0.06 μg/mL, HT29 ED<sub>50</sub> = 5.32 μg/mL, Mithramycin ED<sub>50</sub> = 0.08 μg/mL). Source: TAI WAN LV DAO TENG HUANG *Garcinia linnii*. Ref: 4094.

**6011 1,7-Dihydroxy-3-methoxy xanthone**

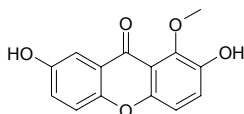
Gentisin [437-50-3]  $C_{14}H_{10}O_5$  (258.23). mp 266–267°C. Pharm: Mutagen (*Salmonella typhimurium*). Source: BA XI HU TONG *Calophyllum brasiliense*, HUANG LONG DAN *Gentiana lutea*, TIE LI MU *Mesua ferrea*, YUAN ZHI *Polygala tenuifolia*, ZHANG YA CAI *Swertia pseudochinensis*, ZHEN YE TENG HUANG *Garcinia eugenifolia*. Ref: 2, 6, 658.

**6012 1,7-Dihydroxy-4-methoxyxanthone**

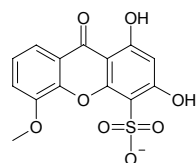
$C_{14}H_{10}O_5$  (258.23). Source: CHAN YI TENG *Securidaca inappendiculata* (stem). Ref: 5238.

**6013 2,7-Dihydroxy-1-methoxyxanthone**

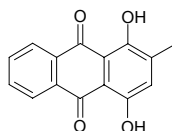
$C_{14}H_{10}O_5$  (258.23). Source: CHAN YI TENG *Securidaca inappendiculata* (stem). Ref: 5238.

**6014 1,3-Dihydroxy-5-methoxyxanthone-4-sulfonate**

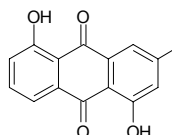
$C_{14}H_9O_8S^-$  (337.29). Yellow needles, mp > 360°C. Pharm: Cytotoxic ( $P_{388}$  cell line, ED<sub>50</sub> = 3.46 μmol/L; control VP-16, ED<sub>50</sub> = 0.064 μmol/L). Source: YUAN BAO CAO *Hypericum sampsonii* (whole herb). Ref: 3861.

**6015 1,4-Dihydroxy-2-methylantraquinone**

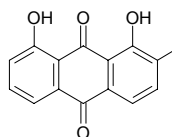
[2589-39-1]  $C_{15}H_{10}O_4$  (254.24). Pharm: Anthelmintic (termites). Source: YOU MU *Tectona grandis*. Ref: 658.

**6016 1,5-Dihydroxy-3-methylantraquinone**

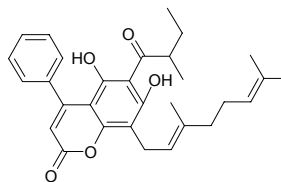
[21891-63-4]  $C_{15}H_{14}O_4$  (254.24). Orange red crystals. Source: CANG BAI CHENG GOU FENG *Diploclisia glaucescens*, SI SHI MAO DI HUANG *Digitalis schischkini*, DONG FANG YANG DI HUANG *Digitalis orientalis*, GAN XI SHU WEI CAO *Salvia przewalskii*, YI DA LI JUE MING ZI *Cassia italika*. Ref: 2100, 2102, 2104, 2105, 2270.

**6017 1,8-Dihydroxy-2-methylantraquinone**

$C_{15}H_{10}O_4$  (254.24). Pharm: Cytotoxic (KB, ED<sub>50</sub> > 25 μg/mL, control Doxorubicin, ED<sub>50</sub> = 0.12 μg/mL; Hep3B, ED<sub>50</sub> > 25 μg/mL, Doxorubicin, ED<sub>50</sub> = 0.14 μg/mL; Colon205, ED<sub>50</sub> > 25 μg/mL, Doxorubicin, ED<sub>50</sub> = 0.10 μg/mL; HeLa, ED<sub>50</sub> > 25 μg/mL, Doxorubicin, ED<sub>50</sub> = 0.11 μg/mL). Source: GUANG JING QIAN CAO *Rubia wallichiana* (stem). Ref: 4369.

**6018 5,7-Dihydroxy-6-(2-methylbutanoyl)-8-[(E)-3,7-dimethylocta-2,6-dienyl]-4-phenyl-2H-chromen-2-one**

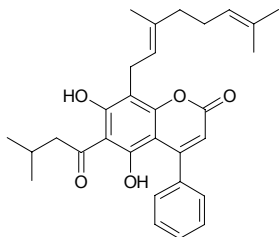
$C_{30}H_{34}O_5$  (474.60). Yellow crystals, mp 89–90°C. Pharm: Antibacterial (*Enterococcus faecalis* 18292, MIC = 8 μg/mL; *Enterococcus faecalis* 19250, MIC = 8 μg/mL); antibacterial (*Staphylococcus aureus* 18268, MIC = 32 μg/mL; *Staphylococcus aureus* 17380, MIC = 8 μg/mL; *Staphylococcus aureus* 17592, MIC = 64 μg/mL; *Staphylococcus aureus* 18110, MIC = 64 μg/mL; *Staphylococcus aureus* 17547, MIC = 32 μg/mL; *Staphylococcus aureus* 17728, MIC = 16 μg/mL; *Staphylococcus aureus* 3012, MIC = 16 μg/mL; *Staphylococcus aureus* 414, MIC = 16 μg/mL; *Staphylococcus epidermidis* 3112, MIC = 4 μg/mL; *Staphylococcus epidermidis* 2515, MIC = 8 μg/mL; *Staphylococcus saprophyticus* 3010, MIC = 32 μg/mL; *Staphylococcus simulans* 214, MIC = 4 μg/mL); antimalarial (*Plasmodium falciparum* D10 (CQ-S), IC<sub>50</sub> = (2.75±0.45) μg/mL, control Chloroquine, IC<sub>50</sub> = (0.011±0.004) μg/mL; W2 (CQ-R), IC<sub>50</sub> = (1.17±0.61) μg/mL, control Chloroquine, IC<sub>50</sub> = (0.229±0.090) μg/mL). Source: TIE LI MU *Mesua ferrea* (blossom). Ref: 3870.





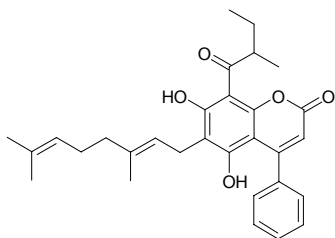
**6019 5,7-Dihydroxy-6-(3-methylbutanoyl)-8-[(E)-3,7-dimethylocta-2,6-dienyl]-4-phenyl-2H-chromen-2-one**

$C_{30}H_{34}O_5$  (474.60). Source: TIE LI MU *Mesua ferrea* (blossom). Ref: 3870.



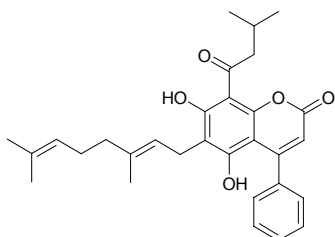
**6020 5,7-Dihydroxy-8-(2-methylbutanoyl)-6-[(E)-3,7-dimethylocta-2,6-dienyl]-4-phenyl-2H-chromen-2-one**

$C_{30}H_{34}O_5$  (474.60). Colorless crystals, mp 90–92°C. Pharm: Antibacterial (*Enterococcus faecalis* 18292, MIC = 8 µg/mL; *Enterococcus faecalis* 19250, MIC = 8 µg/mL); antibacterial (*Staphylococcus aureus* 18268, MIC = 4 µg/mL; *Staphylococcus aureus* 17380, MIC = 64 µg/mL; *Staphylococcus aureus* 17592, MIC = 2 µg/mL; *Staphylococcus aureus* 18110, MIC = 4 µg/mL; *Staphylococcus aureus* 17547, MIC = 2 µg/mL; *Staphylococcus aureus* 17728, MIC = 2 µg/mL; *Staphylococcus aureus* 3012, MIC = 2 µg/mL; *Staphylococcus aureus* 414, MIC = 16 µg/mL; *Staphylococcus epidermidis* 3112, MIC = 2 µg/mL; *Staphylococcus epidermidis* 2515, MIC = 2 µg/mL; *Staphylococcus saprophyticus* 3010, MIC > 128 µg/mL; *Staphylococcus simulans* 214, MIC = 2 µg/mL); antimalarial (*Plasmodium falciparum* D10 (CQ-S),  $IC_{50}$  = (11.21±5.40) µg/mL, control Chloroquine,  $IC_{50}$  = (0.011±0.004) µg/mL; W2 (CQ-R),  $IC_{50}$  = (8.38±2.52) µg/mL, control Chloroquine,  $IC_{50}$  = (0.229±0.090) µg/mL). Source: TIE LI MU *Mesua ferrea* (blossom). Ref: 3870.



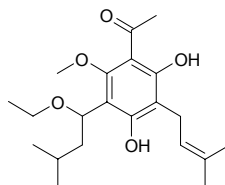
**6021 5,7-Dihydroxy-8-(3-methylbutanoyl)-6-[(E)-3,7-dimethylocta-2,6-dienyl]-4-phenyl-2H-chromen-2-one**

$C_{30}H_{34}O_5$  (474.60). Source: TIE LI MU *Mesua ferrea* (blossom). Ref: 3870.



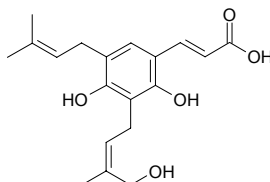
**6022 1-[2',4'-Dihydroxy-3'-(3''-methylbut-2''-enyl)-5'-(1'''-ethoxy-3'''-methylbutyl)-6'-methoxy]phenylethanone**

$C_{21}H_{32}O_5$  (364.49). Source: SHA TANG MU *Acronychia pedunculata*. Ref: 2373.



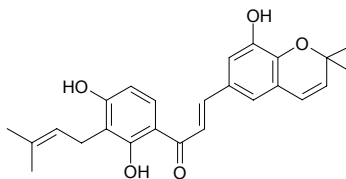
**6023 4,6-Dihydroxy-3-[3'-methyl-2'-butenyl]-5-[4''-hydroxy-3''-methyl-2''-butenyl]-cinnamic acid**

$C_{19}H_{24}O_5$  (332.40). Colorless oil. Source: DAN ZI HAO *Artemisia monosperma*. Ref: 5249.



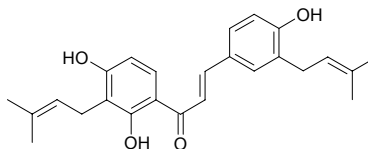
**6024 (E)-1-[2,4-Dihydroxy-3-(3-methyl-2-butenyl)phenyl]-3-(2,2-dimethyl-8-hydroxy-2H-benzopyran-6-yl)-2-propen-1-one**

6'',6''-Dimethylpyrano(2'',3'':4,5)-3'-γ,γ-dimethylallyl-2',3,4'-trihydroxychalcone [151135-83-0]  $C_{25}H_{26}O_5$  (406.48). Yellow acicular crystals (chloroform or hexane), mp 153–156°C. Pharm: Antileishmanial (*Leishmania* sp., 20 µg/mL, InRt = 32%). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra*, ZHANG GUO GAN CAO *Glycyrrhiza inflata*, GAN CAO *Glycyrrhiza uralensis*. Ref: 1002, 1154.

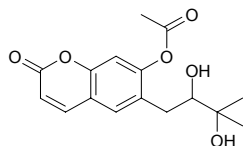


**6025 (E)-1-[2,4-Dihydroxy-3-(3-methyl-2-butenyl)phenyl]-3-(4-hydroxy-3-[3-methyl-2-butenyl]phenyl)-2-propen-1-one**

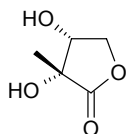
3,3'-Di-(γ,γ-dimethylallyl)-2',4,4'-trihydroxychalcone [151135-82-9]  $C_{25}H_{28}O_4$  (392.50). Yellow acicular crystals (methanol–water), mp 134–137°C. Pharm: Antileishmanial (*Leishmania* sp., 20 µg/mL, InRt = 90%). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra*, ZHANG GUO GAN CAO *Glycyrrhiza inflata*, GAN CAO *Glycyrrhiza uralensis*. Ref: 1002, 1154.



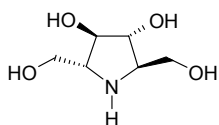
**6026 6-(2',3'-Dihydroxy-3'-methylbutyl)-7-acetoxy-2H-1-benzopyran-2-one**  
 $C_{16}H_{18}O_6$  (306.32). White clustered crystals (MeOH), mp 171~172°C. Source: CI YI YE HUA JIAO *Zanthoxylum dimorphophyllum* var. *spinifolium*. Ref: 2121.



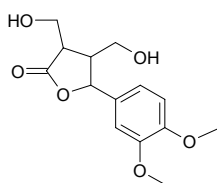
**6027 2,3-Dihydroxy-2-methyl-butylolactone**  
 $C_5H_8O_4$  (132.12). White granular crystals (acetone). Pharm: Cytotoxic (stronger). Source: DA YE BAI TOU WENG *Anaphalis margaritacea*, GUAN GUANG MU *Tsoongiodendron odorum*. Ref: 2177, 3853.



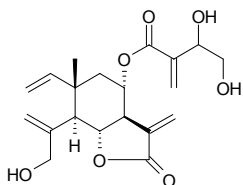
**6028 2,5-Dihydroxymethyl-3,4-dihydropyrrrolidine**  
 $C_6H_{13}NO_4$  (163.17). Pharm: Glucosidase I and  $\alpha$ -,  $\beta$ -glucosidase inhibitor (insect); insect antifeedant (armyworms). Source: MAO YU TENG *Derris elliptica*. Ref: 658.



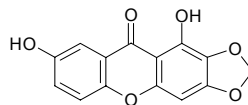
**6029 2,3-Dihydroxymethyl-4-(3',4'-dimethoxyphenyl)- $\gamma$ -butyrolactone**  
 $C_{14}H_{18}O_6$  (282.30). Colorless needles. Source: LIAN QIAO *Forsythia suspensa*. Ref: 2520.



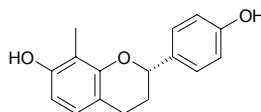
**6030 8 $\alpha$ -(3,4-Dihydroxy-2-methylene-butanoyloxy)-dehydro-melitensin**  
 $C_{20}H_{26}O_7$  (378.43). Pharm: Antifungal (*Aspergillus niger*, MIC = 0.25 $\mu$ g/mL, control Miconazole, MIC = 1.5 $\mu$ g/mL; *Aspergillus ochraceus*, MIC = 0.125 $\mu$ g/mL, Miconazole, MIC = 1.5 $\mu$ g/mL; *Aspergillus versicolor*, MIC = 0.125 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Aspergillus flavus*, MIC = 1 $\mu$ g/mL, Miconazole, MIC = 0.5 $\mu$ g/mL; *Penicillium ochrochloron*, MIC = 0.25 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Penicillium funiculosum*, MIC = 0.5 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Trichoderma viride*, MIC = 0.25 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Cladosporium cladosporioides*, MIC = 0.5 $\mu$ g/mL, Miconazole, MIC = 0.03 $\mu$ g/mL; *Alternaria alternata*, MIC = 0.25 $\mu$ g/mL, Miconazole, MIC = 0.5 $\mu$ g/mL). Source: *Centaurea thessala* ssp. *drakiensis* (aerial parts), *Centaurea attica* ssp. *attica* (aerial parts). Ref: 5115.



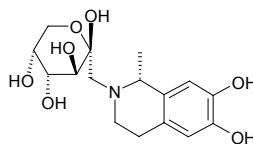
**6031 1,7-Dihydroxy-2,3-methylenedioxyxanthone**  
 $C_{14}H_8O_6$  (272.22). Colorless acicular crystals (chloroform-methanol), mp 224~226°C, mp 245~247°C, mp 243~245°C. Pharm: Aldose reductase inhibitor (eye lens). Source: HUANG HUA YUAN ZHI *Polygala arillata*, JIA HUANG HUA YUAN ZHI *Polygala fallax* [Syn. *Polygala aureocauda*] (root and stem: yield = 0.00135%)<sup>[4683]</sup>. Ref: 345, 658, 4683.



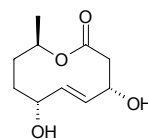
**6032 7,4'-Dihydroxy-8-methylflavan**  
 $C_{16}H_{16}O_3$  (256.30). Pharm: Antibacterial (phytopathogenic bacteria, *Corynebacterium betae* and *Corynebacterium fascians*); antifungal (*Botrytis cinerea*, ED<sub>50</sub> = 32 $\mu$ g/mL). Source: LONG XUE SHU *Dracaena draco*. Ref: 658.



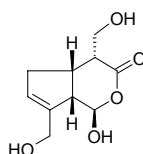
**6033 6,7-Dihydroxy-1-methyl-N-(6'-fructopyranosyl)-1,2,3,4-tetrahydroisoquinoline**  
 $C_{16}H_{23}NO_7$  (341.36). Amorphous brownish solid, 105° dec (MeOH),  $[\alpha]_D^{25} = -45^\circ$  ( $c = 1.90$ , MeOH). Source: GONG XING MA DOU LING *Aristolochia arcuata*. Ref: 2037.



**6034 4,7-Dihydroxy-10-methyl-3,4,7,8,9,10-hexahydro-oxecin-2-one**  
 $C_{10}H_{16}O_4$  (200.24). Colorless crystals (MeOH-CHCl<sub>3</sub>), mp 203~204°C,  $[\alpha]_D^{29} = -55^\circ$  ( $c = 0.036$ , MeOH). Pharm: Antimalarial inactive (*Plasmodium falciparum* K1, 20 $\mu$ g/mL; control Dihydroartemisinin, IC<sub>50</sub> = 1.2ng/mL). Source: YONG CHONG CAO *Cordyceps militaris*. Ref: 4784.

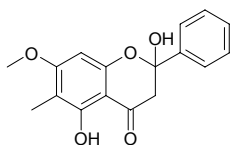


**6035 (1R,4R,4aS,7aS)-4,7-Dihydroxymethyl-1-hydroxyl-1,4,4a,7a-tetrahydrocyclopenta-6-ene[e]pyran-3-one**  
 $C_{10}H_{14}O_5$  (214.22). Colorless gum,  $[\alpha]_D^{25} = +32.0^\circ$  ( $c = 0.30$ , CHCl<sub>3</sub>). Source: GUANG YAO DA HUANG HUA *Cymbaria mongolica*. Ref: 2001.

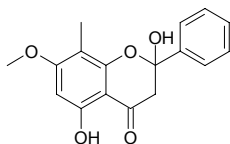


**6036 2,5-Dihydroxy-6-methyl-7-methoxyflavanone**

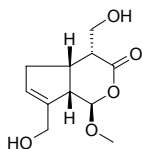
[186906-54-7] C<sub>17</sub>H<sub>16</sub>O<sub>5</sub> (300.31). Source: YUAN ZHI YE AO ZHOU CHA *Leptospermum polygalifolium* ssp. *Polygalifolium* (foliage). Ref: 3485.

**6037 2,5-Dihydroxy-8-methyl-7-methoxyflavanone**

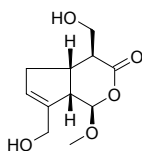
[186906-53-6] C<sub>17</sub>H<sub>16</sub>O<sub>5</sub> (300.31). Source: YUAN ZHI YE AO ZHOU CHA *Leptospermum polygalifolium* ssp. *Polygalifolium* (foliage). Ref: 3485.

**6038 (1R,4R,4aS,7aS)-4,7-Dihydroxymethyl-1-methoxyl-1,4,4a,7a-tetrahydrocyclopenta-6-ene[e]pyran-3-one**

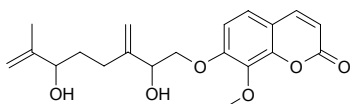
C<sub>11</sub>H<sub>16</sub>O<sub>5</sub> (228.25). Colorless gum, [α]<sub>D</sub><sup>25</sup> = +27.8° (c = 0.20, CHCl<sub>3</sub>). Source: GUANG YAO DA HUANG HUA *Cymbaria mongolica*. Ref: 2001.

**6039 (1R,4S,4aS,7aS)-4,7-Dihydroxymethyl-1-methoxyl-1,4,4a,7a-tetrahydrocyclopenta-6-ene[e]pyran-3-one**

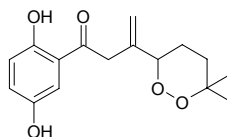
C<sub>11</sub>H<sub>16</sub>O<sub>5</sub> (228.25). Colorless gum, [α]<sub>D</sub><sup>25</sup> = -8.5° (c = 0.10, CHCl<sub>3</sub>). Source: GUANG YAO DA HUANG HUA *Cymbaria mongolica*. Ref: 2001.

**6040 7-(2',6'-Dihydroxy-7'-methyl-3'-methyleneocta-7'-en-1-oxy)-8-methoxycoumarin**

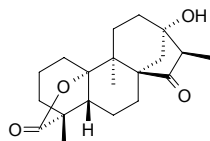
C<sub>20</sub>H<sub>24</sub>O<sub>6</sub> (360.41). Pharm: Antibacterial; smooth muscle relaxant; anticoagulant; photosensitive agent; ichthyotoxin; toxin. Source: *Zanthoxylum* sp. Ref: 2176.

**6041 1,4-Dihydroxy-2-(7'-methyl-3'-methylene-1'-oxo-4',7'-peroxide-octyl)benzene**

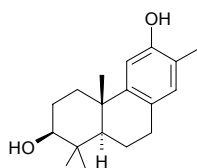
C<sub>16</sub>H<sub>20</sub>O<sub>5</sub> (292.33). White amorphous powder. Pharm: Antifungal (TLC bioautographic assay, *Cladosporium cladosporioides*, MA = 5.0μg, control Miconazole, MA = 1.0μg; *Cladosporium sphaerospermum*, MA = 10.0μg, Miconazole, MA = 1.0μg). Source: CU YE MAI HU JIAO *Piper crassinervium*. Ref: 3440.

**6042 10α,13α-Dihydroxy-9α-methyl-15-oxo-20-nor-kauran-19-oic acid γ-lactone**

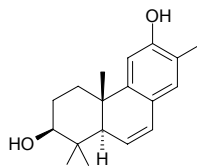
C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). Pale-yellow crystals, mp 85–88°C, [α]<sub>D</sub><sup>25</sup> = -68.0° (c = 0.1, MeOH). Pharm: Cytotoxic (Lu1, Col2, KB, LNCaP, hTERT-RPE1, ED<sub>50</sub> = 10–20μg/mL, HUVEC, ED<sub>50</sub> > 20μg/mL; control Taxol, ED<sub>50</sub> = 0.002μg/mL, 0.003μg/mL, 0.0005μg/mL, 0.001μg/mL, 0.004μg/mL, 0.008μg/mL, respectively). Source: *Parinari sprucei* (leaf). Ref: 4991.

**6043 3β,12-Dihydroxy-13-methyl-8,10,13-podocarpantriene**

C<sub>18</sub>H<sub>26</sub>O<sub>2</sub> (274.41). Semi solid, [α]<sub>D</sub><sup>25</sup> = -12.6° (c = 0.5, MeOH). Source: MA FENG SHU *Jatropha curcas* (aerial parts). Ref: 4287.

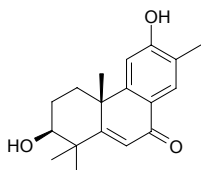
**6044 3β,12-Dihydroxy-13-methyl-6,8,11,13-podocarpatetraen**

C<sub>18</sub>H<sub>24</sub>O<sub>2</sub> (272.39). Yellow oil, [α]<sub>D</sub><sup>20</sup> = +86.7° (c = 0.91, acetone). Pharm: Cytotoxic (*in vitro*, pulmonary adenocarcinoma A549 cells, IC<sub>50</sub> = 31.8μmol/L; hepatocarcinoma Bel 7402 cells, IC<sub>50</sub> = 22.9μmol/L; gastric carcinoma BGC823 cells, IC<sub>50</sub> = 21.1μmol/L; colorectal adenocarcinoma HCT8 cells, IC<sub>50</sub> = 21.8μmol/L; ovarian cancer A2780 cells, IC<sub>50</sub> = 23.7μmol/L). Source: YI YE QIU *Securinega suffruticosa* (callus). Ref: 4544.

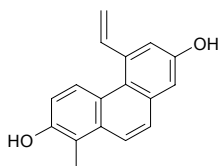


**6045 3 $\beta$ ,12-Dihydroxy-13-methyl-5,8,11,13-podocarpataetraen-7-one**

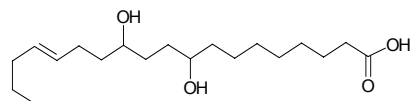
C<sub>18</sub>H<sub>22</sub>O<sub>3</sub> (286.37). Pale yellow oil,  $[\alpha]_D^{20} = -56.6^\circ$  ( $c = 0.09$ , acetone). **Pharm:** Cytotoxic (*in vitro*, pulmonary adenocarcinoma A549 cells, IC<sub>50</sub> = 31.6 $\mu$ mol/L; hepatocarcinoma Bel 7402 cells, IC<sub>50</sub> = 26.5 $\mu$ mol/L; gastric carcinoma BGC823 cells, IC<sub>50</sub> = 20.0 $\mu$ mol/L; colorectal adenocarcinoma HCT8 cells, IC<sub>50</sub> = 22.0 $\mu$ mol/L; ovarian cancer A2780 cells, IC<sub>50</sub> = 21.8 $\mu$ mol/L). **Source:** YI YE QIU *Securinega suffruticosa* (callus). **Ref:** 4544.

**6046 2,7-Dihydroxy-1-methyl-5-vinylphenanthrene**

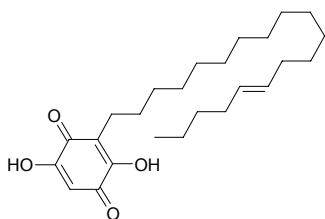
C<sub>17</sub>H<sub>14</sub>O<sub>2</sub> (250.30). **Source:** JIAN DENG XIN CAO *Juncus acutus*. **Ref:** 1965.

**6047 9,12-Dihydroxy-15-nonadecenoic acid**

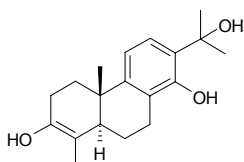
C<sub>19</sub>H<sub>36</sub>O<sub>4</sub> (328.50). **Source:** CU LIU GUO *Hippophae rhamnoides*. **Ref:** 2.

**6048 2,5-Dihydroxy-3-(nonadec-14-enyl)-benzoquinone**

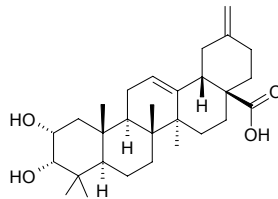
C<sub>25</sub>H<sub>40</sub>O<sub>4</sub> (404.60). Yellow brown crystals (MeOH), mp 138~139°C,  $[\alpha]_D^{25} = -40^\circ$  ( $c = 1.0$ , CH<sub>2</sub>Cl<sub>2</sub>). **Source:** PI ZHEN DU JING SHAN *Maesa lanceolata* (fruit). **Ref:** 3464.

**6049 3,15-Dihydroxy-18-norabieta-3,8,11,13-tetraene**

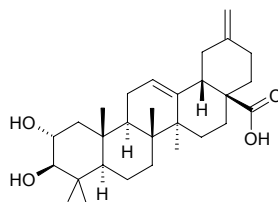
C<sub>19</sub>H<sub>26</sub>O<sub>3</sub> (302.42). White-brown powder,  $[\alpha]_D^{24} = +23.5^\circ$  ( $c = 2.9$ , MeOH). **Pharm:** Cytotoxic (KB, IC<sub>50</sub> > 66 $\mu$ mol/L, control Podophyllotoxin, IC<sub>50</sub> = 0.014 $\mu$ mol/L); antibacterial (*Bacillus cereus*, MIC = 423.84 $\mu$ mol/L; control Chloramphenicol, MIC = 6.19 $\mu$ mol/L). **Source:** GAO MEI YING BAN *Crossopetalum gaueri* (root). **Ref:** 3969.

**6050 2 $\alpha$ ,3 $\alpha$ -Dihydroxy-30-noroleana-12,20(29)-dien-28-oic acid**

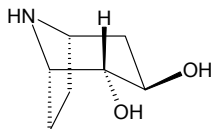
C<sub>29</sub>H<sub>44</sub>O<sub>4</sub> (456.67). Amorphous solid,  $[\alpha]_D^{27} = +142.0^\circ$  ( $c = 0.10$ , MeOH). **Source:** SAN YE MU TONG *Akebia trifoliata* (stem). **Ref:** 4545.

**6051 2 $\alpha$ ,3 $\beta$ -Dihydroxy-30-noroleana-12,20(29)-dien-28-oic acid**

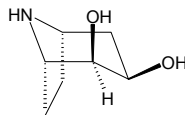
C<sub>29</sub>H<sub>44</sub>O<sub>4</sub> (456.67). Amorphous solid,  $[\alpha]_D^{27} = +70.0^\circ$  ( $c = 0.10$ , MeOH). **Source:** SAN YE MU TONG *Akebia trifoliata* (stem). **Ref:** 4545.

**6052 2 $\alpha$ ,3 $\beta$ -Dihydroxynortropane**

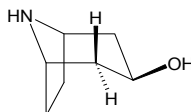
C<sub>7</sub>H<sub>13</sub>NO<sub>2</sub> (143.19). Colorless powder,  $[\alpha]_D = -33.9^\circ$  ( $c = 0.32$ , H<sub>2</sub>O). **Pharm:**  $\alpha$ -Glucosidase inhibitor inactive (control 1-Deoxynojirimucin, IC<sub>50</sub> = 0.98mmol/L, Fagoming, IC<sub>50</sub> = 15mmol/L). **Source:** SANG SHI *Morus alba*. **Ref:** 4161.

**6053 2 $\beta$ ,3 $\beta$ -Dihydroxynortropane**

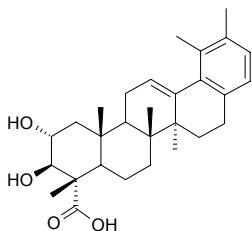
C<sub>7</sub>H<sub>13</sub>NO<sub>2</sub> (143.19). Colorless powder,  $[\alpha]_D = -34.0^\circ$  ( $c = 0.61$ , H<sub>2</sub>O). **Pharm:**  $\alpha$ -Glucosidase inhibitor inactive (control 1-Deoxynojirimucin, IC<sub>50</sub> = 0.98mmol/L, Fagoming, IC<sub>50</sub> = 15mmol/L). **Source:** SANG SHI *Morus alba*. **Ref:** 4161.

**6054 3 $\beta$ ,6-*exo*-Dihydroxynortropane**

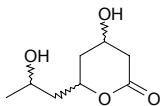
C<sub>7</sub>H<sub>13</sub>NO<sub>2</sub> (143.19). Colorless powder,  $[\alpha]_D = -1.3^\circ$  ( $c = 0.60$ , H<sub>2</sub>O). **Pharm:**  $\alpha$ -Glucosidase inhibitor (IC<sub>50</sub> = 33mmol/L, control 1-Deoxynojirimucin, IC<sub>50</sub> = 0.98mmol/L, Fagoming, IC<sub>50</sub> = 15mmol/L). **Source:** SANG SHI *Morus alba*. **Ref:** 4161.



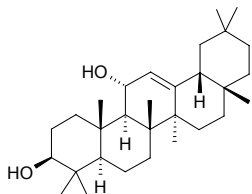
**6055 2 $\alpha$ ,3 $\beta$ -Dihydroxy-28-norurs-12,17,19(20),21-tetraen-23-oic acid**  
 C<sub>29</sub>H<sub>40</sub>O<sub>4</sub> (452.64). White amorphous powder,  $[\alpha]_D^{28.6} = +19.8^\circ$  ( $c = 0.21$ , MeOH). **Pharm:** Cytotoxic (SGC cell, EC<sub>50</sub> = 10.2 $\mu$ mol/L). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5304.



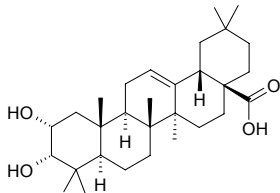
**6056 3,7-Dihydroxy-5-octanolide**  
 C<sub>8</sub>H<sub>14</sub>O<sub>4</sub> (174.20). White powder, mp 93.5~94.0°C,  $[\alpha]_D^{26} = -24.4^\circ$  ( $c = 0.086$ , EtOH). **Source:** YE YA CHUN *Euscaphis japonica*. **Ref:** 2204.



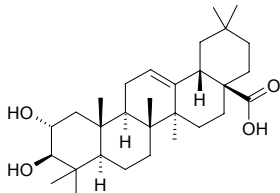
**6057 3 $\beta$ ,11 $\alpha$ -Dihydroxy-olean-12-ene**  
 C<sub>30</sub>H<sub>50</sub>O<sub>2</sub> (442.73). White crystals (acetone), easily soluble in CHCl<sub>3</sub> and MeOH, mp 192~196°C. **Source:** SI CHUAN QING FENG TENG *Sabia schumanniana* (aerial parts). **Ref:** 4883.



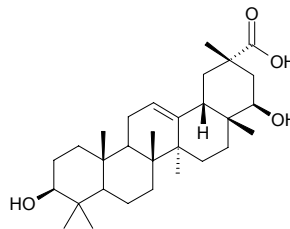
**6058 2 $\alpha$ ,3 $\alpha$ -Dihydroxyolean-12-en-28-oic acid**  
 C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). **Source:** SAN YE MU TONG *Akebia trifoliata* (stem). **Ref:** 4545.



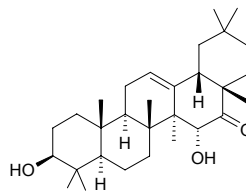
**6059 2 $\alpha$ ,3 $\beta$ -Dihydroxyolean-12-en-28-oic acid**  
 (–)-Maslinic acid; Cratogeolic acid [4373-41-5] C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). mp (–) 263~265°C. **Source:** DA ZAO *Ziziphus jujuba*, HUO XIANG *Agastache rugosus*, SAN YE MU TONG *Akebia trifoliata* (stem), YANG MEI SHU PI *Myrica rubra* (bark: yield = 0.00083%). **Ref:** 2, 660, 1247, 4163, 4545.



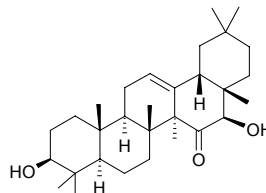
**6060 3 $\beta$ ,22 $\beta$ -Dihydroxyolean-12-en-29-oic acid**  
 C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). **Pharm:** DPPH scavenger inactive (for 40 $\mu$ mol/L DPPH radical, SC<sub>50</sub> > 40 $\mu$ mol/L). **Source:** SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*] (stem). **Ref:** 4378.



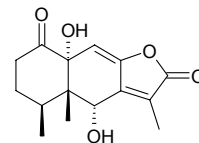
**6061 3 $\beta$ ,15 $\alpha$ -Dihydroxy-olean-12-en-16-one**  
 Eriocarpin A; 3 $\beta$ ,15 $\alpha$ -Dihydroxy-olean-12(13)-en-16-one C<sub>30</sub>H<sub>48</sub>O<sub>3</sub> (456.72). Colorless acicular crystals (MeOH), mp 195~197°C,  $[\alpha]_D^{20} = +0^\circ$  ( $c = 0.011$ , MeOH). **Source:** MAO GUO YU TENG *Derris eriocarpa*, YUN NAN GE TENG *Pueraria peduncularis*. **Ref:** 665, 2262.



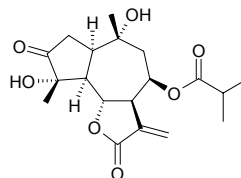
**6062 3 $\beta$ ,16 $\beta$ -Dihydroxy-olean-12-en-15-one**  
 C<sub>30</sub>H<sub>48</sub>O<sub>3</sub> (456.72). Colorless acicular crystals mp 218~220°C. **Source:** YUN NAN GE TENG *Pueraria peduncularis*. **Ref:** 853.



**6063 6 $\alpha$ ,10 $\alpha$ -Dihydroxy-1-oxoeremophila-7(11),8(9)-dien-12,8-olide**  
 C<sub>15</sub>H<sub>18</sub>O<sub>5</sub> (278.31). **Source:** *Ligularia virgaurea* ssp. *oligocephala* (whole herb). **Ref:** 4981.

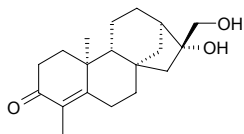


**6064 4 $\alpha$ ,10 $\alpha$ -Dihydroxy-3-oxo-8 $\beta$ -isobutyryloxyguaia-11(13)-en-12,6 $\alpha$ -olide**  
 C<sub>19</sub>H<sub>26</sub>O<sub>7</sub> (366.41). **Pharm:** Cytotoxic (antiproliferative, Col2 cells, IC<sub>50</sub> = 18.9 $\mu$ g/mL); cytotoxic (cellular differentiation inducer, hmn promyelocytic leukemia HL-60 cells, 4 $\mu$ g/mL, activity denotes percentage of cells differentiated = 32.4%); cytotoxic (MMOC model, inhibits DMBA-induced preneoplastic lesion formation, 10 $\mu$ g/mL, rel-InRt = 48.7%, control DMBA, rel-InRt = 100%). **Source:** ZHONG BIN JU *Tithonia diversifolia* (aerial parts: yield = 0.0063%dw). **Ref:** 4622.

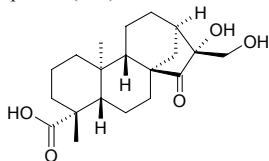


**6065 16 $\alpha$ ,17-Dihydroxy-3-oxo-19-nor-ent-kaur-4-ene**

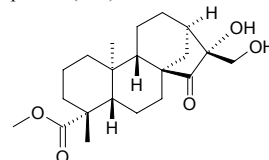
C<sub>19</sub>H<sub>28</sub>O<sub>3</sub> (304.43). **Pharm:** Antibacterial (*Staphylococcus aureus*, MIC < 1.5mg/mL; *Bacillus cereus* and *Pseudomonas aeruginosa*, MIC = 2.0~3.0mg/mL; *Escherichia coli*, inactive). **Source:** *Antennaria geyeri* (aerial parts). **Ref:** 3853.

**6066 16 $\alpha$ ,17-Dihydroxy-15-oxo-ent-kaur-19-oic acid**

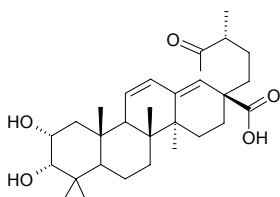
C<sub>20</sub>H<sub>30</sub>O<sub>5</sub> (350.46). Brownish solid, mp 137~142°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +5.0° (*c* = 0.1, MeOH). **Pharm:** Cytotoxic inactive (Lu1, Col2, KB, LNCaP, hTERT-RPE1, HUVEC; control Taxol, ED<sub>50</sub> = 0.002μg/mL, 0.003μg/mL, 0.0005μg/mL, 0.001μg/mL, 0.004μg/mL, 0.008μg/mL, respectively). **Source:** *Parinari sprucei* (leaf). **Ref:** 4991.

**6067 16 $\alpha$ ,17-Dihydroxy-15-oxo-ent-kaur-19-oic acid methyl ester**

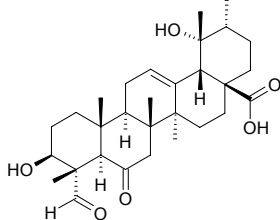
C<sub>21</sub>H<sub>32</sub>O<sub>5</sub> (364.49). White solid, mp 187~193°C (dec), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +27.0° (*c* = 0.1, MeOH). **Pharm:** Cytotoxic inactive (Lu1, Col2, KB, LNCaP, hTERT-RPE1, HUVEC; control Taxol, ED<sub>50</sub> = 0.002μg/mL, 0.003μg/mL, 0.0005μg/mL, 0.001μg/mL, 0.004μg/mL, 0.008μg/mL, respectively). **Source:** *Parinari sprucei* (leaf). **Ref:** 4991.

**6068 2 $\alpha$ ,3 $\alpha$ -Dihydroxy-19-oxo-18,19-seco-urs-11,13(18)-dien-28-oic acid**

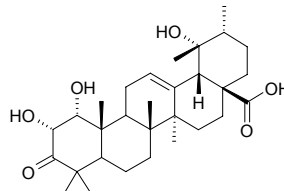
C<sub>30</sub>H<sub>46</sub>O<sub>5</sub> (486.70). White amorphous powder. **Source:** FEI LONG ZHANG XUE *Toddalia asiatica* [Syn. *Toddalia aculeata*; *Paullinia asiatica*] (stem). **Ref:** 4561.

**6069 3 $\beta$ ,19 $\alpha$ -Dihydroxy-6-oxo-urs-12-en-23-al-28-oic acid**

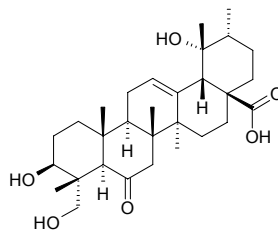
C<sub>30</sub>H<sub>44</sub>O<sub>6</sub> (500.68). **Source:** BI LU GOU TENG *Uncaria tomentosa*. **Ref:** 5341.

**6070 2 $\alpha$ ,19 $\alpha$ -Dihydroxy-3-oxo-12-ursen-28-oic acid**

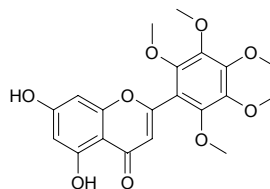
C<sub>30</sub>H<sub>46</sub>O<sub>6</sub> (502.70). **Pharm:** Immunosuppressant (hmn mononuclear cells antiproliferation, involving T lymphocytes, B lymphocytes, and macrophages isolated from peripheral blood, IC<sub>50</sub> = 40.0μmol/L; control Cyclosporine A, IC<sub>50</sub> = 0.012μmol/L). **Source:** TAI WAN PI PA *Eriobotrya deflexa* (leaf). **Ref:** 3064.

**6071 3 $\beta$ ,19 $\alpha$ -Dihydroxy-6-oxo-urs-12-en-23-ol-28-oic acid**

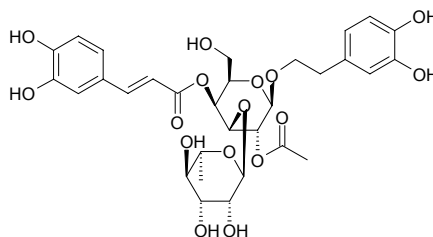
C<sub>30</sub>H<sub>46</sub>O<sub>6</sub> (502.70). **Source:** BI LU GOU TENG *Uncaria tomentosa*. **Ref:** 5341.

**6072 5,7-Dihydroxy-2',3',4',5',6'-pentamethoxyflavone**

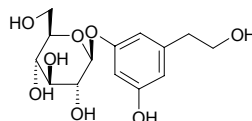
C<sub>20</sub>H<sub>20</sub>O<sub>9</sub> (404.38). **Pharm:** Anti-HIV-1 inactive. **Source:** TAI GUO ZHI ZI *Gardenia thailandica* (leaf and twig). **Ref:** 4963.

**6073 3,4-Dihydroxyphenethoxy-O- $\alpha$ -L-rhamnopyranosyl-(1→3)- $\beta$ -D-(2-O-acetyl-4-O-caffeoyl)-galactopyranoside**

C<sub>31</sub>H<sub>38</sub>O<sub>16</sub> (666.64). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = -43.34° (*c* = 0.47, MeOH). **Source:** LAI JIANG TENG *Brandisia hancei* (whole herb). **Ref:** 4569.

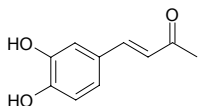
**6074 3,5-Dihydroxyphenethyl alcohol 3-O- $\beta$ -glucopyranoside**

C<sub>14</sub>H<sub>20</sub>O<sub>8</sub> (316.31). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -33.5° (*c* = 0.18, MeOH). **Pharm:** Antioxidant (DPPH scavenger, DPPH radical 15μmol/L: 10μmol/L, ScRt = 41.4%; control BHA, 10μmol/L, ScRt = 23.0%; Vitamin E, 10μmol/L, ScRt = 41.1%). **Source:** JIA HUI SE JIU LI XIANG PO PO NA *Veronica thymoides* ssp. *pseudocinerea*. **Ref:** 3846.

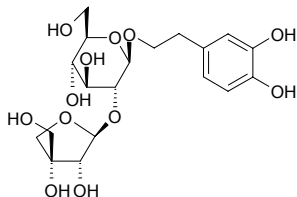


**6075 (E)-4-(3,4-Dihydroxyphenyl)but-3-en-2-one**

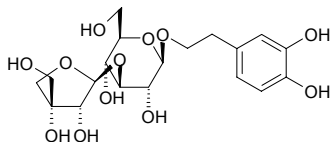
$C_{10}H_{10}O_3$  (178.19). **Pharm:** Cytotoxic (*in vitro*, A549,  $IC_{50} > 0.28 \mu\text{mol/L}$ ; BGC823,  $IC_{50} = 0.243 \mu\text{mol/L}$ ; MCF7,  $IC_{50} = 0.141 \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = 0.153 \mu\text{mol/L}$ ; Ketr3,  $IC_{50} = 0.245 \mu\text{mol/L}$ ; HCT8,  $IC_{50} = 0.227 \mu\text{mol/L}$ ; control Topotecan, A549,  $IC_{50} = 0.0032 \mu\text{mol/L}$ ; BGC823,  $IC_{50} = 0.0043 \mu\text{mol/L}$ ; MCF7,  $IC_{50} = 0.0018 \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = 0.0012 \mu\text{mol/L}$ ; Ketr3,  $IC_{50} = 0.0049 \mu\text{mol/L}$ ; HCT8,  $IC_{50} = 0.0015 \mu\text{mol/L}$ ). **Source:** SANG HUANG *Phellinus igniarius* (sporocarp: yield = 0.0062%dw). **Ref:** 4747.

**6076 3,4-Dihydroxyphenylethanol-8-O-[β-D-apiofuranosyl(1→2)]-β-D-glucopyranoside**

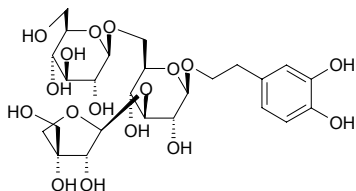
$C_{19}H_{28}O_{12}$  (448.43). Yellow-white amorphous powder, has accessibility, easily soluble in water and methanol,  $[\alpha]_D^{25} = -59.3^\circ$  ( $c = 0.14$ , MeOH). **Source:** SHI DAN CAO *Corallodiscus flabellatus* [Syn. *Didissandra flabellata*]. **Ref:** 2463.

**6077 3,4-Dihydroxyphenylethanol-8-O-[β-D-apiofuranosyl(1→3)]-β-D-glucopyranoside**

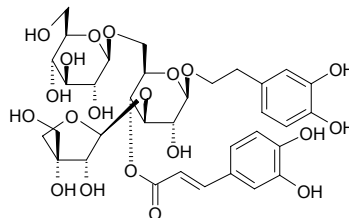
$C_{19}H_{28}O_{12}$  (447.43). Yellow-white amorphous powder, has accessibility, easily soluble in water and methanol,  $[\alpha]_D^{25} = -61.6^\circ$  ( $c = 0.16$ , MeOH). **Source:** SHI DAN CAO *Corallodiscus flabellatus* [Syn. *Didissandra flabellata*]. **Ref:** 2460.

**6078 3,4-Dihydroxyphenylethanol-8-O-[β-D-apiofuranosyl(1→3)]-β-D-glucopyranosyl(1→6)]-β-D-glucopyranoside**

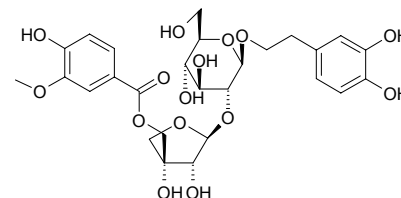
$C_{25}H_{38}O_{17}$  (610.57). Yellow-white amorphous powder, has accessibility, easily soluble in water and methanol,  $[\alpha]_D^{25} = -70.5^\circ$  ( $c = 0.12$ , MeOH). **Source:** SHI DAN CAO *Corallodiscus flabellatus* [Syn. *Didissandra flabellata*]. **Ref:** 2460.

**6079 3,4-Dihydroxyphenylethanol-8-O-[4-O-trans-caffeoyl-β-D-apiofuranosyl(1→3)]-β-D-glucopyranosyl(1→6)]-β-D-glucopyranoside**

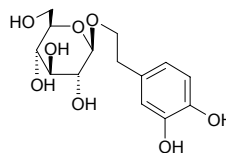
$C_{34}H_{44}O_{20}$  (772.72). Yellow-white amorphous powder, has accessibility, easily soluble in water and methanol,  $[\alpha]_D^{25} = -65.6^\circ$  ( $c = 0.09$ , MeOH). **Source:** SHI DAN CAO *Corallodiscus flabellatus* [Syn. *Didissandra flabellata*]. **Ref:** 2460.

**6080 3,4-Dihydroxyphenylethanol-8-O-[(5-O-vanilloyl)-β-D-apiofuranosyl(1→2)]-β-D-glucopyranoside**

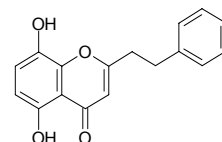
$C_{27}H_{34}O_{15}$  (598.56). White amorphous powder, has accessibility, easily soluble in water and methanol,  $[\alpha]_D^{25} = -54.8^\circ$  ( $c = 0.42$ , MeOH). **Source:** SHI DAN CAO *Corallodiscus flabellatus* [Syn. *Didissandra flabellata*]. **Ref:** 2463.

**6081 3,4-Dihydroxyphenylethyl alcohol glucoside**

2-(3,4-Dihydroxyphenyl)-ethyl-*O*-β-D-glucopyranoside  $C_{14}H_{20}O_8$  (316.31). **Pharm:** Antioxidant (DPPH scavenger, DPPH radical  $15 \mu\text{mol/L}$ :  $10 \mu\text{mol/L}$ , ScRt = 41.4%; control BHA,  $10 \mu\text{mol/L}$ , ScRt = 23.0%; Vitamin E,  $10 \mu\text{mol/L}$ , ScRt = 41.1%)<sup>[3846]</sup>, antioxidant (hydroxyl radical scavenger,  $IC_{50} = 55.9 \mu\text{mol/L}$ , control Ascorbic acid,  $IC_{50} = 51.8 \mu\text{mol/L}$ , superoxide anion radical scavenger,  $IC_{50} = 86.5 \mu\text{mol/L}$ , Ascorbic acid,  $IC_{50} = 86.2 \mu\text{mol/L}$ )<sup>[4289]</sup>. **Source:** HUANG LIAN *Coptis chinensis*, JIA HUI SE JIU LI XIANG PO PO NA *Veronica thymoides* ssp. *pseudocinerea*, XI ZANG HU HUANG LIAN *Picrorhiza scrophulariiflora* (root)<sup>[4289]</sup>. **Ref:** 2, 3846, 4289.

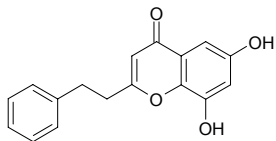
**6082 5,8-Dihydroxy-2-(2-phenylethyl)chromone**

$C_{17}H_{14}O_4$  (282.30). Colorless lump crystals, mp 159–160°C. **Source:** BAI MU XIANG *Aquilaria sinensis*. **Ref:** 13, 660.

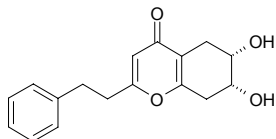


**6083 6,8-Dihydroxy-2-(2-phenylethyl)chromone**

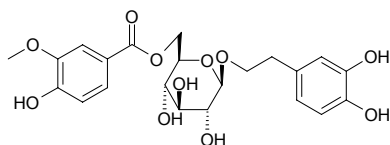
$C_{17}H_{14}O_4$  (282.30). Colorless needles, mp 218–220°C (MeOH). Source: CHEN XIANG *Aquilaria agallocha*. Ref: 4173.

**6084 6,7-Dihydroxy-2-(2-phenylethyl)-5,6,7,8-tetrahydrochromone**

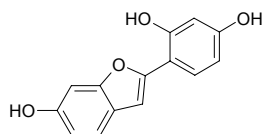
$C_{17}H_{18}O_4$  (286.33). Brown amorphous solid,  $[\alpha]_D^{25} = -15.1^\circ$  ( $c = 1.0$ , MeOH). Source: BAI MU XIANG *Aquilaria sinensis* (withered wood). Ref: 4339.

**6085 1'-O-β-D-(3,4-Dihydroxyphenyl)-ethyl-6'-O-vanilloyl-glucopyranoside**

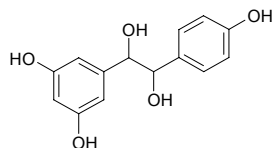
$C_{22}H_{26}O_{11}$  (466.45). White amorphous powder, having hygroscopicity, mp 145–147°C,  $[\alpha]_D^{25} = -42.1^\circ$  ( $c = 0.41$ , MeOH). Source: SHI DAN CAO *Corallodiscus flabellatus* [Syn. *Didissandra flabellat*] (whole herb). Ref: 4849.

**6086 2-(2,4-Dihydroxyphenyl)-6-hydroxybenzofuran**

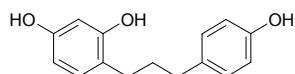
$C_{14}H_{10}O_4$  (242.23). Pharm: Antioxidant (rat brain homogenate lipid peroxidation test,  $IC_{50} = 0.2\mu\text{mol/L}$ , control EGCg,  $IC_{50} = 0.07\mu\text{mol/L}$ ). Source: TONG XING LIE PIAN HU ZHI ZI *Lespedeza homoloba*. Ref: 2356.

**6087 1-(3',5'-Dihydroxyphenyl)-2-(4'-hydroxyphenyl)ethane-1,2-diol**

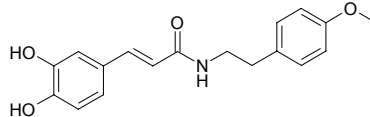
$C_{14}H_{14}O_5$  (262.26). Amorphous powder,  $[\alpha]_D^{25} = +13.5^\circ$  ( $c = 0.32$ , MeOH). Source: HU ZHANG *Polygonum cuspidatum*. Ref: 4186.

**6088 1-(2,4-Dihydroxyphenyl)-3-(4-hydroxyphenyl)propane**

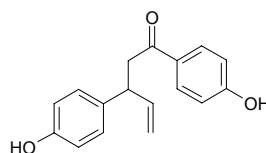
$C_{15}H_{16}O_3$  (244.29). Brown powder, mp 92–93°C. Pharm: Aromatase inhibitor inactive (*in vitro*,  $IC_{50} > 40\mu\text{mol/L}$ ; control Aminoglutethimide,  $IC_{50} = 6.4\mu\text{mol/L}$ ). Source: GOU SHU *Broussonetia papyrifera*. Ref: 3090.

**6089 7'-(3',4'-Dihydroxyphenyl)-N-[(4-methoxyphenyl)ethyl]propenamide**

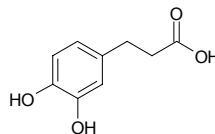
$C_{18}H_{19}NO_4$  (313.36). Colorless solid. Pharm:  $\alpha$ -Glucosidase inhibitor (type VI,  $IC_{50} = 103.58\mu\text{mol/L}$ , control 1-Deoxyojirimycin,  $IC_{50} = 300\mu\text{mol/L}$ ); thrombin inhibitor inactive;  $\beta$ -glucuronidase inhibitor inactive. Source: YUN NAN TU SI ZI *Cuscuta reflexa*. Ref: 4155.

**6090 1,3-Di-p-hydroxyphenyl-4-penten-1-one**

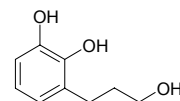
$C_{17}H_{16}O_3$  (268.32). Pharm: Cytotoxic (*in vitro*, HOG.R5,  $CC_{50} = 20.6\mu\text{g/mL}$  (76.8 $\mu\text{mol/L}$ ), control Ellipticine, HOG.R5,  $IC_{50} = 0.02\mu\text{g/mL}$  (0.08 $\mu\text{mol/L}$ )); cytotoxic inactive (KB, Col2, LNCaP, Lu1, HUVEC,  $IC_{50} > 20\mu\text{g/mL}$ ); anti-HIV ( $IC_{50} = 20\mu\text{g/mL}$  (74.6 $\mu\text{mol/L}$ )). Source: TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*] (dried root: yield = 0.00005%dw). Ref: 3009.

**6091 3-(3,4-Dihydroxyphenyl)propanoic acid**

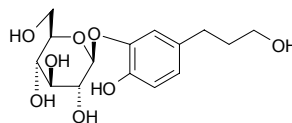
$C_9H_{10}O_4$  (182.18). Pharm: Tyrosine kinase inhibitor ( $IC_{50} = 418\mu\text{mol/L}$ , interleukin-2 inducible T-cell kinase). Source: MO LEI NAN YANG SHEN *Polyscias murrayi*. Ref: 5252.

**6092 3-(3,4-Dihydroxyphenyl)-1-propanol**

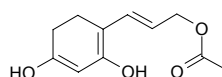
$C_9H_{12}O_3$  (168.19). Source: TAI WAN CUI BAI *Calocedrus macrolepis* var. *formosana* (leaf). Ref: 4297.

**6093 3,4-Dihydroxyphenylpropanol β-D-glucopyranoside**

$C_{13}H_{22}O_8$  (330.34). Amorphous powder,  $[\alpha]_D^{23} = -41^\circ$  ( $c = 0.2$ , MeOH). Source: YIN DU ZANG HUI XIANG *Carum ajowan* (fruit). Ref: 3547.

**6094 3-(3,4-Dihydroxyphenyl)-2-propen-1-ethanoate**

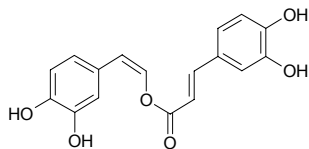
$C_{11}H_{14}O_4$  (210.23). Pharm:  $\alpha$ -Glucosidase inhibitor inactive (type VI, control 1-Deoxyojirimycin,  $IC_{50} = 0.3\text{mmol/L}$ ); thrombin inhibitor inactive;  $\beta$ -glucuronidase inhibitor inactive<sup>[4155]</sup>. Source: YUN NAN TU SI ZI *Cuscuta reflexa*. Ref: 4155.



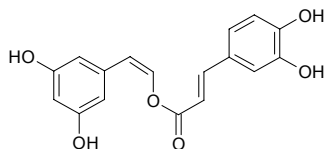


**6095 3-(3,4-Dihydroxyphenyl)-2-propenoic acid (Z,E)-2-(3,4-dihydroxyphenyl) ethenyl ester**

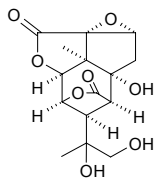
[55486-06-1] C<sub>17</sub>H<sub>14</sub>O<sub>6</sub> (314.29). Yellow acicular crystals (methanol–water), mp 183~185°C (dec). **Pharm:** Xanthinoxidase inhibitor (*in vitro*, IC<sub>50</sub> = 0.021 μg/mL). **Source:** JIAN ZI SU *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*]. **Ref:** 1006.

**6096 3-(3,4-Dihydroxyphenyl)-2-propenoic acid (Z,E)-2-(3,5-dihydroxyphenyl) ethenyl ester**

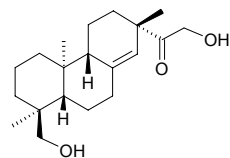
[130233-90-8] C<sub>17</sub>H<sub>14</sub>O<sub>6</sub> (314.29). Yellow thin crystals (methanol–water), mp 188~190°C. **Pharm:** Xanthinoxidase inhibitor (*in vitro*, IC<sub>50</sub> = 0.124 μg/mL). **Source:** JIAN ZI SU *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*]. **Ref:** 1006.

**6097 Dihydroxypicrotoxinin**

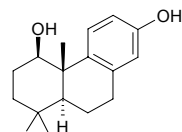
C<sub>15</sub>H<sub>18</sub>O<sub>8</sub> (326.31). Colorless needles, mp 260~262°C, [α]<sub>D</sub><sup>17</sup> = -65° (c = 1.34, EtOH) **Source:** *Anamirta cocculus*. **Ref:** 1876.

**6098 ent-16,18-Dihydroxy-8(14)-pimaren-15-one**

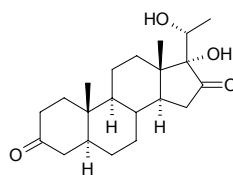
C<sub>20</sub>H<sub>32</sub>O<sub>3</sub> (320.48). Viscous oil, [α]<sub>D</sub><sup>26</sup> = -9.1° (c = 0.55, MeOH). **Source:** HAI NAN JIAN MU *Dysoxylum hainanense*. **Ref:** 750.

**6099 1β,13-Dihydroxy-8,11,13-podocarpatriene**

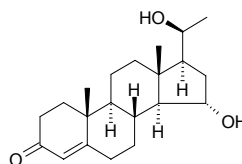
C<sub>17</sub>H<sub>24</sub>O<sub>2</sub> (260.38). Yellow amorphous solid, [α]<sub>D</sub><sup>23</sup> = -3.1° (c = 0.55, CHCl<sub>3</sub>). **Source:** TAI WAN SHAN *Taiwania cryptomerioides* (bark). **Ref:** 4182.

**6100 17α,20R-Dihydroxypregnan-3,16-dione**

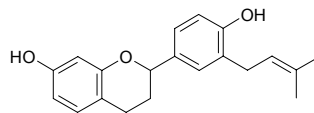
C<sub>21</sub>H<sub>32</sub>O<sub>4</sub> (348.49). Colorless acicular crystals (Me<sub>2</sub>CO), [α]<sub>D</sub><sup>26</sup> = -106.3° (c = 0.31, CHCl<sub>3</sub>). **Source:** YA LUO CHUN *Cipadessa baccifera*. **Ref:** 745.

**6101 15α,20β-Dihydroxy-Δ<sup>4</sup>-pregnen-3-one**

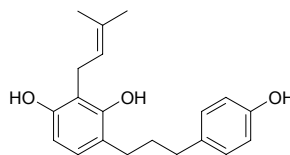
C<sub>21</sub>H<sub>32</sub>O<sub>3</sub> (332.49). **Source:** HONG HUA *Carthamus tinctorius*. **Ref:** 8.

**6102 (2S)-7,4'-Dihydroxy-3'-prenylflavan**

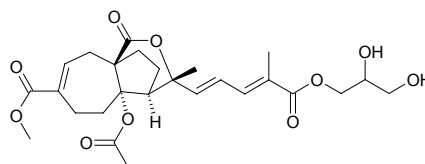
C<sub>20</sub>H<sub>22</sub>O<sub>3</sub> (310.4). Brown powder, mp 116~117°C. **Pharm:** Aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40 μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4 μmol/L). **Source:** GOU SHU *Broussonetia papyrifera*. **Ref:** 3090.

**6103 1-(2,4-Dihydroxy-3-prenylphenyl)-3-(4-hydroxyphenyl)-propane**

Anticancer Benzenoid PMV70P691-003 C<sub>20</sub>H<sub>24</sub>O<sub>3</sub> (312.41). Brown powder, mp 115~116°C. **Pharm:** Aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40 μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4 μmol/L)<sup>[3090]</sup>; cytotoxic (antioxidant assay)<sup>[5038]</sup>. **Source:** GOU SHU *Broussonetia papyrifera*. **Ref:** 3090, 5038.

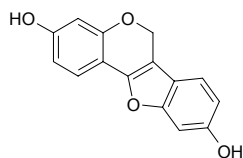
**6104 2',3'-Dihydroxy-1'-propoxypseudolarate B**

C<sub>26</sub>H<sub>34</sub>O<sub>10</sub> (506.55). White amorphous powder, [α]<sub>D</sub><sup>20</sup> = -18.3° (c = 0.46, Me<sub>2</sub>CO). **Source:** TU JING PI *Pseudolarix amabilis* [Syn. *Larix amabilis*; *Pseudolarix kaempferi*] (root cortex; yield = 0.000047%dw). **Ref:** 4637.

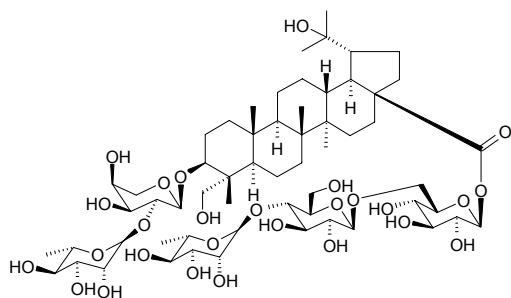


**6105 3,9-Dihydroxypterocarp-6a-ene**

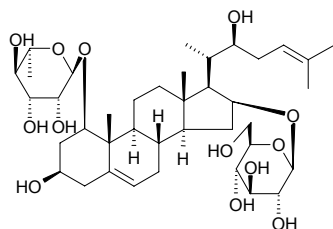
$C_{15}H_{10}O_4$  (254.24). **Pharm:** Antioxidant (rat brain homogenate lipid peroxidation test,  $IC_{50} = 0.2 \mu\text{mol/L}$ , control EGCg,  $IC_{50} = 0.07 \mu\text{mol/L}$ ); Antiallergic (50mg/kg, InRt = 49.6%, control EGCg, InRt = 12.8%). **Source:** TONG XING LIE PIAN HU ZHI ZI *Lespedeza homoloba*. **Ref:** 2356.

**6106 20,23-Dihydroxy-3β-[(O-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl)oxy]lupan-28-oic acid 28-O-α-L-rhamnopyranosyl-(1→4)-O-β-D-glucopyranosyl-(1→6)-β-D-glucopyranosyl ester**

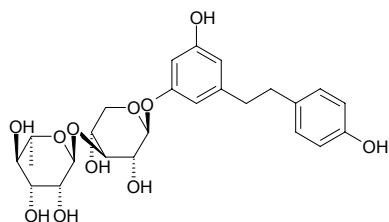
$C_{59}H_{98}O_{27}$  (1239.42). Amorphous solid,  $[\alpha]_D^{26} = -48.0^\circ$  ( $c = 0.10$ , MeOH). **Source:** BAI TOU WENG *Pulsatilla chinensis*. **Ref:** 3086.

**6107 (22S)-3β,22-Dihydroxy-1β-[(α-L-rhamnopyranosyl)oxy]cholest-5,24-dien-16β-yl β-D-glucopyranoside**

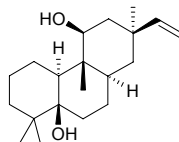
$C_{39}H_{64}O_{13}$  (740.94). Amorphous solid,  $[\alpha]_D^{25} = -40.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60 cells,  $IC_{50} > 10 \mu\text{mol/L}$ , control Etoposide,  $IC_{50} = 0.025 \mu\text{mol/L}$ ). **Source:** XIA FENG XIN ZI *Galtonia candicans* (bulb). **Ref:** 4116.

**6108 5,4'-Dihydroxy-3-α-L-rhamnosyl-(1''→3')-β-D-xylopyranosyloxy-bibenzyl**

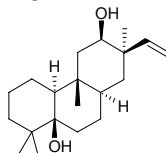
$C_{25}H_{32}O_{11}$  (508.53). Amorphous yellowish color,  $>179^\circ\text{C}$  (glass transition),  $[\alpha]_D^{20} = -39^\circ$  ( $c = 0.235$ , MeOH). **Pharm:** Antioxidant (DPPH scavenger,  $IC_{50} = (8.93 \pm 0.94) \mu\text{g/mL}$ ; control Ascorbic acid,  $IC_{50} = (2.49 \pm 0.32) \mu\text{g/mL}$ ; Caffeic acid,  $IC_{50} = (1.78 \pm 0.03) \mu\text{g/mL}$ ; Chlorogenic acid,  $IC_{50} = (1.28 \pm 0.38) \mu\text{g/mL}$ ). **Source:** SUAN YE PO LUO MEN SHEN *Tragopogon porrifolius* (subaerial parts). **Ref:** 5307.

**6109 5β,11β-Dihydroxy-ros-15-ene**

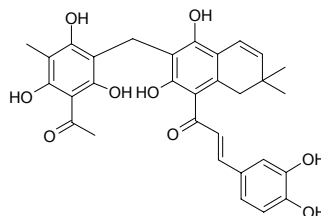
$C_{20}H_{34}O_2$  (306.49).  $[\alpha]_D^{20} = +68^\circ$  ( $c = 0.23$ ,  $\text{CHCl}_3$ ). **Source:** *Gackstroemia decipiens*. **Ref:** 3907.

**6110 5β,12β-Dihydroxy-ros-15-ene**

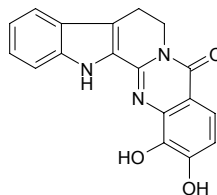
$C_{20}H_{34}O_2$  (306.49).  $[\alpha]_D^{20} = +57^\circ$  ( $c = 0.27$ ,  $\text{CHCl}_3$ ). **Source:** *Gackstroemia decipiens*. **Ref:** 3907.

**6111 3,4-Dihydroxyrottlerin**

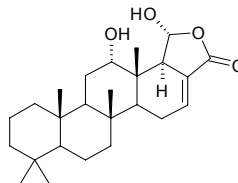
[24650-82-6]  $C_{31}H_{30}O_9$  (546.58). mp  $200^\circ\text{C}$ . **Source:** LV SONG QIU MAO *Mallotus philippinensis*. **Ref:** 6.

**6112 1,2-Dihydroxyrutacarpine**

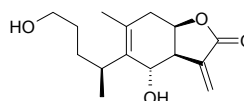
$C_{18}H_{13}N_3O_3$  (319.32). Yellow amorphous solid. **Source:** *Bouchardatia neurococca*. **Ref:** 3445.

**6113 12,25-Dihydroxy-16-scalaren-24,25-olide**

$C_{25}H_{38}O_4$  (402.58). **Source:** *Cacospongia scalaris*. **Ref:** 1521.

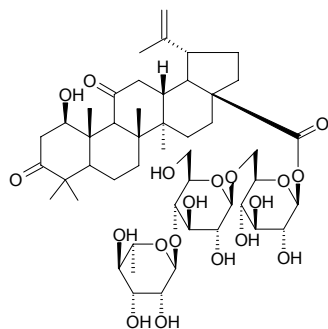
**6114 1,6α-Dihydroxy-4aH-1,10-secoeudesma-5(10),11(13)-dien-12,8β-olide**

$C_{15}H_{22}O_4$  (266.34). **Pharm:** Cytotoxic (SMMC-7721  $IC_{50} = (52.22 \pm 1.25) \mu\text{g/mL}$ , Vincristine  $IC_{50} = (30.35 \pm 2.23) \mu\text{g/mL}$ ; HO-8910  $IC_{50} = (21.32 \pm 2.64) \mu\text{g/mL}$ , Vincristine  $IC_{50} = (20.74 \pm 1.91) \mu\text{g/mL}$ )<sup>[5422]</sup>. **Source:** JIN FEI CAO *Inula japonica*. **Ref:** 5422.



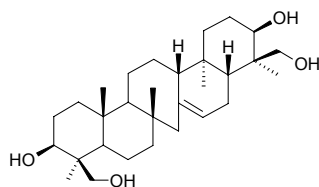
**6115 (1R)-1,11- $\alpha$ -Dihydroxy-3,4-seco-lupa-4(23), 20(29)-diene-3,28-dioic acid 3,11-lactone 28-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl (1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside**

$C_{48}H_{74}O_{19}$  (955.11). White needles, mp 232–234°C [ $\alpha$ ]<sub>D</sub><sup>14</sup> = +11.7° (*c* = 0.5, MeOH). **Source:** CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*]. **Ref:** 469.



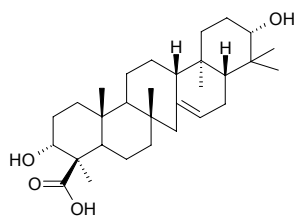
**6116 3 $\alpha$ ,21 $\beta$ -Dihydroxyserrat-14-ene-24,29-diol**

$C_{30}H_{50}O_4$  (474.73). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*] (whole herb: yield = 0.00022%dw). **Ref:** 4729.



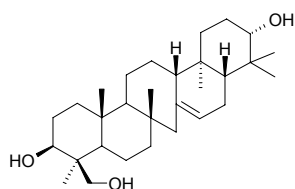
**6117 3 $\alpha$ ,21 $\alpha$ -Dihydroxyserrat-14-en-24-oic acid**

$C_{30}H_{48}O_4$  (472.71). White powder (CHCl<sub>3</sub>–CH<sub>3</sub>OH), mp 304–306°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –0.6° (*c* = 0.78, C<sub>5</sub>D<sub>5</sub>N). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*] (whole herb: yield = 0.000036%dw). **Ref:** 4729.



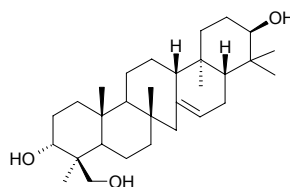
**6118 3 $\beta$ ,21 $\alpha$ -Dihydroxyserrat-14-en-24-ol**

$C_{30}H_{50}O_3$  (458.73). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*] (whole herb: yield = 0.00017%dw). **Ref:** 4729.



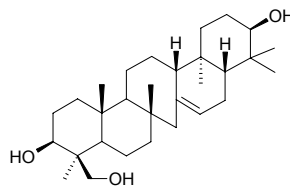
**6119 3 $\alpha$ ,21 $\beta$ -Dihydroxyserrat-14-en-24-ol**

$C_{30}H_{50}O_3$  (458.73). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*] (whole herb: yield = 0.0001%dw). **Ref:** 4729.



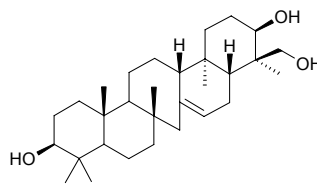
**6120 3 $\beta$ ,21 $\beta$ -Dihydroxyserrat-14-en-24-ol**

$C_{30}H_{50}O_3$  (458.73). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*] (whole herb: yield = 0.000032%dw). **Ref:** 4729.



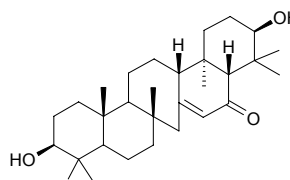
**6121 3 $\beta$ ,21 $\beta$ -Dihydroxyserrat-14-en-29-ol**

$C_{30}H_{50}O_3$  (458.73). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*] (whole herb: yield = 0.00025%dw). **Ref:** 4729.



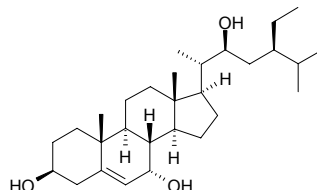
**6122 3 $\beta$ ,21 $\beta$ -Dihydroxyserrat-14-en-16-one**

16-Oxo-21-episerratenediol  $C_{30}H_{48}O_3$  (456.72). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*] (whole herb: yield = 0.000084%dw), SHEN JIN CAO *Lycopodium japonicum* [Syn. *Lycopodium clavatum*]. **Ref:** 1410, 2811, 4729.



**6123 7 $\alpha$ ,22S-Dihydroxysitosterol**

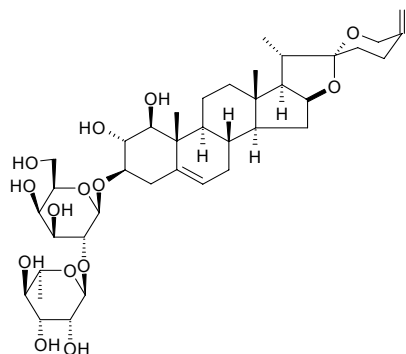
$C_{29}H_{53}O_3$  (446.72). White powder, mp 183–185°C **Source:** MA BIAN CAO *Verbena officinalis*. **Ref:** 2173.



**6124** 1 $\beta$ ,2 $\alpha$ -Dihydroxyspirosta-5,25(27)-dien-3 $\beta$ -yl *O*- $\alpha$ -D-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -L-galactopyranoside

C<sub>39</sub>H<sub>60</sub>O<sub>14</sub> (752.90). Amorphous solid,  $[\alpha]_D^{25} = -70.7^\circ$  ( $c = 0.20$ , MeOH).

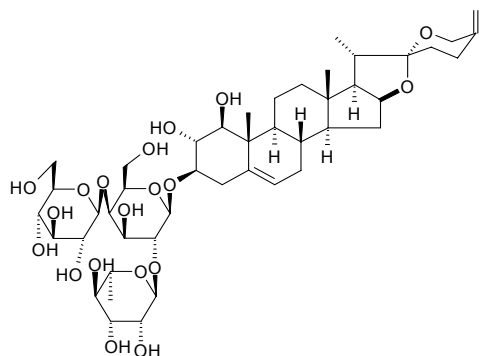
Source: *Cestrum sendtnerianum* (leaf). Ref: 5105.



**6125** 1 $\beta$ ,2 $\alpha$ -Dihydroxyspirosta-5,25(27)-dien-3 $\beta$ -yl *O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)]- $\beta$ -D-galactopyranoside

C<sub>45</sub>H<sub>70</sub>O<sub>19</sub> (915.05). Amorphous solid,  $[\alpha]_D^{25} = -124.4^\circ$  ( $c = 0.25$ , MeOH).

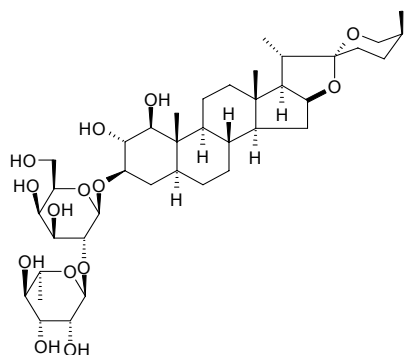
Pharm: Cytotoxic (HL-60, IC<sub>50</sub> = 7.7 $\mu$ g/mL, control Etoposide, IC<sub>50</sub> = 0.75 $\mu$ g/mL). Source: *Cestrum sendtnerianum* (leaf). Ref: 5105.



**6126** (25*R*)-1 $\beta$ ,2 $\alpha$ -Dihydroxy-5 $\alpha$ -spirostan-3 $\beta$ -yl *O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-galactopyranoside

C<sub>39</sub>H<sub>64</sub>O<sub>14</sub> (756.94). Amorphous solid,  $[\alpha]_D^{25} = -56.4^\circ$  ( $c = 0.11$ , MeOH).

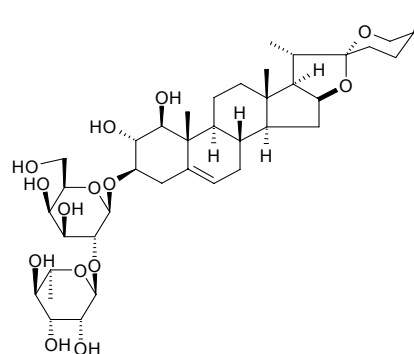
Source: *Cestrum sendtnerianum* (leaf). Ref: 5105.



**6127** (25*R*)-1 $\beta$ ,2 $\alpha$ -Dihydroxyspirost-5-en-3 $\beta$ -yl *O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-galactopyranoside

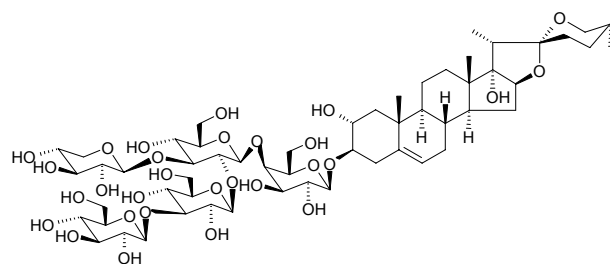
C<sub>39</sub>H<sub>62</sub>O<sub>14</sub> (754.92). Amorphous solid,  $[\alpha]_D^{25} = -57.1^\circ$  ( $c = 0.14$ , MeOH).

Source: *Cestrum sendtnerianum* (leaf). Ref: 5105.



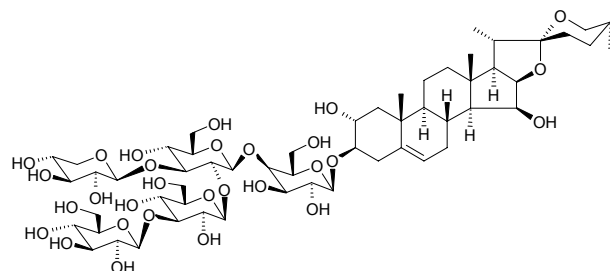
**6128** (25*R*)-2 $\alpha$ ,17 $\alpha$ -Dihydroxyspirost-5-en-3 $\beta$ -yl *O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranoside

C<sub>56</sub>H<sub>90</sub>O<sub>29</sub> (1227.32). Amorphous powder,  $[\alpha]_D^{24} = -57^\circ$  ( $c = 0.2$ , CHCl<sub>3</sub>:MeOH, 1:1). Pharm: Cytotoxic (HSC-2 cells, LD<sub>50</sub> = 5.5 $\mu$ g/mL; HGF, LD<sub>50</sub> = 34 $\mu$ g/mL)<sup>[3023]</sup>; cytotoxic (*in vitro*, HSC-2, LD<sub>50</sub> = 4.4 $\mu$ g/mL; control Doxorubicin, LD<sub>50</sub> = 2.5 $\mu$ g/mL)<sup>[4667]</sup>. Source: YE XIANG SHU *Cestrum nocturnum* (leaf: yield = 0.0077%fw). Ref: 3023, 4667.



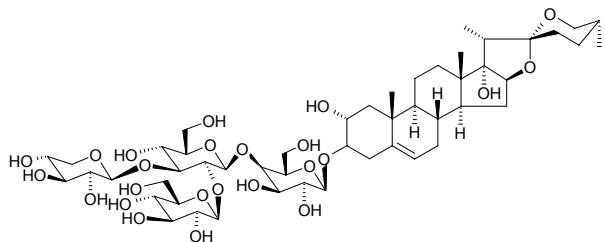
**6129** (25*R*)-2 $\alpha$ ,15 $\beta$ -Dihydroxyspirost-5-en-3 $\beta$ -yl *O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranoside

C<sub>56</sub>H<sub>90</sub>O<sub>29</sub> (1227.32). Amorphous powder,  $[\alpha]_D^{24} = -60^\circ$  ( $c = 0.13$ , CHCl<sub>3</sub>:MeOH, 1:1). Pharm: Cytotoxic (HSC-2 cells, LD<sub>50</sub> = 4.4 $\mu$ g/mL; HGF, LD<sub>50</sub> = 22 $\mu$ g/mL). Source: YE XIANG SHU *Cestrum nocturnum* (leaf: yield = 0.0071%fw). Ref: 3023.



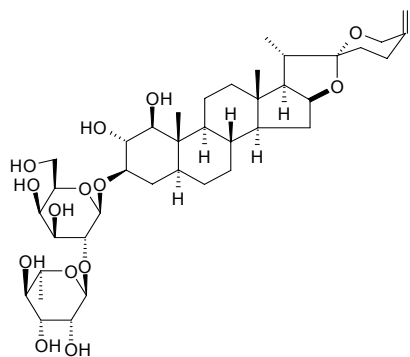
**6130 (25R)-2 $\alpha$ ,17 $\alpha$ -Dihydroxyspirost-5-en-3 $\beta$ -yl O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranoside**

C<sub>50</sub>H<sub>80</sub>O<sub>24</sub> (1065.18). Amorphous powder,  $[\alpha]_D^{24} = -70.8^\circ$  ( $c = 0.13$ , CHCl<sub>3</sub>:MeOH, 1:1). **Pharm:** Cytotoxic (HSC-2 cells, LD<sub>50</sub> = 13 $\mu$ g/mL; HGF, LD<sub>50</sub> = 58 $\mu$ g/mL). **Source:** YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0070%fw). **Ref:** 3023.



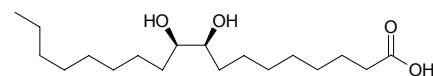
**6131 1 $\beta$ ,2 $\alpha$ -Dihydroxy-5 $\alpha$ -spirost-25(27)-en-3 $\beta$ -yl O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-galactopyranoside**

C<sub>39</sub>H<sub>62</sub>O<sub>14</sub> (754.92). Amorphous solid,  $[\alpha]_D^{25} = -54.2^\circ$  ( $c = 0.43$ , MeOH). **Source:** *Cestrum sendtnerianum* (leaf). **Ref:** 5105.



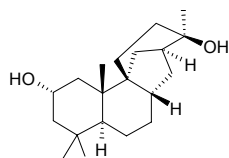
**6132 9,10-Dihydroxystearic acid**

C<sub>18</sub>H<sub>36</sub>O<sub>4</sub> (316.49). **Source:** BI MA ZI *Ricinus communis*. **Ref:** 658.



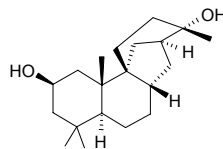
**6133 2 $\alpha$ ,13(R)-Dihydroxystemodane**

C<sub>20</sub>H<sub>34</sub>O<sub>2</sub> (306.49). Plates, mp 235~237°C,  $[\alpha]_D^{27} = +16.5^\circ$  ( $c = 0.38$ , MeOH). **Source:** DAO GEN MEI *Rhizopus oryzae*. **Ref:** 3781.



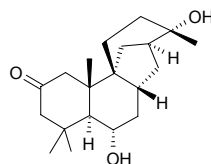
**6134 2 $\beta$ ,13(S)-Dihydroxystemodane**

C<sub>20</sub>H<sub>34</sub>O<sub>2</sub> (306.49). Needles, mp 157~159°C,  $[\alpha]_D^{27} = +11.9^\circ$  ( $c = 0.78$ , MeOH). **Source:** DAO GEN MEI *Rhizopus oryzae*. **Ref:** 3781.



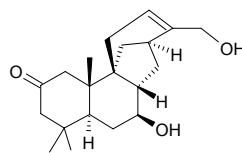
**6135 6 $\alpha$ ,13(S)-Dihydroxystemodan-2-one**

C<sub>20</sub>H<sub>32</sub>O<sub>3</sub> (320.48). Needles, mp 191~193°C,  $[\alpha]_D^{27} = +55.6^\circ$  ( $c = 4.5$ , CHCl<sub>3</sub>). **Source:** DAO GEN MEI *Rhizopus oryzae*. **Ref:** 3781.



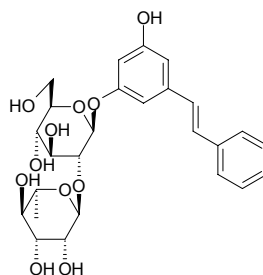
**6136 7 $\beta$ ,17-Dihydroxystemod-12-en-2-one**

C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). Needles, mp 220~225°C,  $[\alpha]_D^{27} = -10.9^\circ$  ( $c = 2.8$ , Me<sub>2</sub>CO). **Source:** DAO GEN MEI *Rhizopus oryzae*. **Ref:** 3781.



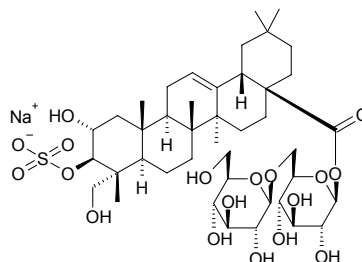
**6137 3,5-Dihydroxy-stilbene-3-O-neohesperidoside**

C<sub>26</sub>H<sub>32</sub>O<sub>11</sub> (520.54). White powder, mp 184~186°C,  $[\alpha]_D^{20} = -100^\circ$  ( $c = 0.045$ , MeOH). **Source:** QIAN LIE LIN MAO JUE *Dryopteris sublaeta*. **Ref:** 4879.



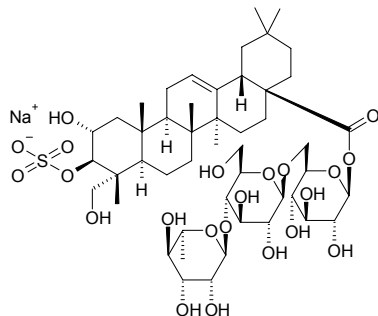
**6138 2 $\alpha$ ,23-Dihydroxy-3 $\beta$ -sulfoxylean-12-en-28-oic acid**

**O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester sodium salt**  
C<sub>42</sub>H<sub>67</sub>NaO<sub>18</sub>S (915.05). Amorphous solid,  $[\alpha]_D^{27} = +14.0^\circ$  ( $c = 0.10$ , MeOH). **Source:** SAN YE MU TONG *Akebia trifoliata* (stem). **Ref:** 4545.



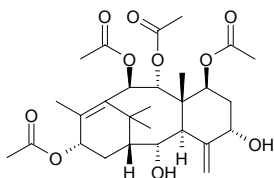
**6139** 2 $\alpha$ ,23-Dihydroxy-3 $\beta$ -sulfoxyolean-12-en-28-oic acid *O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester sodium salt

C<sub>48</sub>H<sub>77</sub>NaO<sub>22</sub>S (1061.19). Amorphous solid,  $[\alpha]_D^{27} = -8.0^\circ$  ( $c = 0.10$ , MeOH). Source: SAN YE MU TONG *Akebia trifoliata* (stem). Ref: 4545.



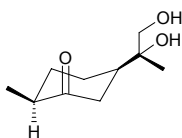
**6140** 2 $\alpha$ ,5 $\alpha$ -Dihydroxy-7 $\beta$ ,9 $\alpha$ ,10 $\beta$ ,13 $\alpha$ -tetraacetoxy-4(20),11-taxadiene

C<sub>28</sub>H<sub>40</sub>O<sub>10</sub> (536.63). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*, SU MEN DA LA HONG DOU SHAN *Taxus sumatrana* (twig and leaf)<sup>[4800]</sup>. Ref: 662, 4800.



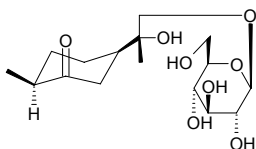
**6141** (1S,4S,8S)-8,9-Dihydroxytetrahydrocarvone

C<sub>10</sub>H<sub>18</sub>O<sub>3</sub> (186.25). Amorphous powder,  $[\alpha]_D^{21} = -23^\circ$  ( $c = 0.5$ , MeOH). Source: SHI LUO ZI *Anethum graveolens* (fruit). Ref: 4177.



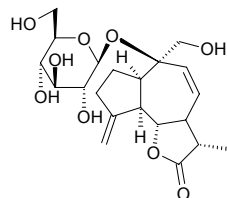
**6142** (1S,4S,8S)-8,9-Dihydroxytetrahydrocarvone 9-*O*- $\beta$ -D-glucopyranoside

C<sub>16</sub>H<sub>28</sub>O<sub>8</sub> (348.40). Amorphous powder,  $[\alpha]_D^{25} = -28^\circ$  ( $c = 3.5$ , MeOH). Source: SHI LUO ZI *Anethum graveolens* (fruit). Ref: 4177.



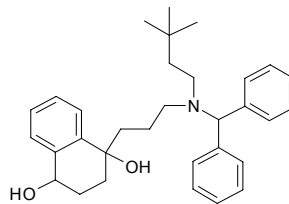
**6143** 10 $\beta$ ,14-Dihydroxy-10(14),11 $\beta$ (13)-tetrahydro-8,9-didehydro-3-deoxyzalanin C 10-*O*- $\beta$ -D-glucopyranoside

C<sub>21</sub>H<sub>30</sub>O<sub>9</sub> (426.47). Solid,  $[\alpha]_D^{25.8} = -41.8^\circ$  ( $c = 0.63$ , MeOH). Source: KAN CHA JIA MAO LIAN CAI *Picris kamschatca*. Ref: 1932.



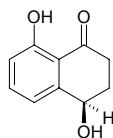
**6144** *N*-(1',4'-Dihydroxy-1',2',3',4'-tetrahydronaphthyl)-propyl-*N*-diphenylmethyl-*N*-3,3-dimethylbutylamine

C<sub>32</sub>H<sub>41</sub>NO<sub>2</sub> (471.69). Colorless filamentary needles mp 148.5°C. Source: YI BEI MU *Fritillaria pallidiflora*. Ref: 2116.



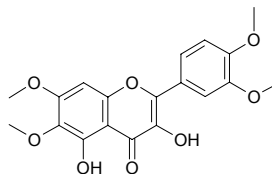
**6145** (4*R*)-4,8-Dihydroxy- $\alpha$ -tetralone

C<sub>10</sub>H<sub>10</sub>O<sub>3</sub> (178.19). Source: DONG BEI HU TAO *Juglans mandshurica* var. *sieboldiana* (fruit). Ref: 4492.



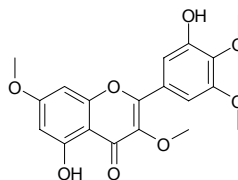
**6146** 3,5-Dihydroxy-6,7,3',4'-tetramethoxyflavone

Quercetagenin-6,7,3',4'-tetramethyl ether C<sub>19</sub>H<sub>18</sub>O<sub>8</sub> (374.35). Source: HUANG HUA HAO *Artemisia annua*. Ref: 2, 660.



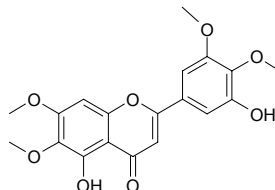
**6147** 5,3'-Dihydroxy-3,7,4',5'-tetramethoxyflavone

C<sub>19</sub>H<sub>18</sub>O<sub>8</sub> (374.35). Amorphous. Source: NIAN MAO LIAO *Polygonum viscosum* (whole herbs). Ref: 3955.



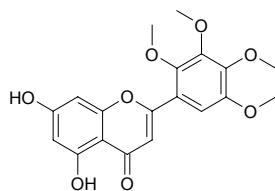
**6148** 5,3'-Dihydroxy-6,7,4',5'-tetramethoxyflavone

C<sub>19</sub>H<sub>18</sub>O<sub>8</sub> (374.35). Pharm: Antioxidant (ferric thiocyanate method, 0.5mmol/L, peroxidation value = 11.4%, control BHA, 0.5mmol/L, peroxidation value = 4.5%, control Vitamin E, 0.5mmol/L, peroxidation value = 14.7%). Source: TIAN SHE CAO *Lippia dulcis* (aerial parts). Ref: 4508.

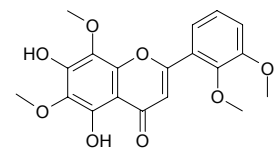


**6149 5,7-Dihydroxy-2',3',4',5'-tetramethoxy-flavone**

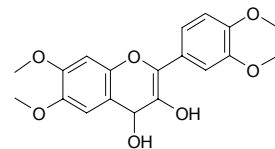
$C_{19}H_{18}O_8$  (374.35). Pharm: Anti-HIV-1 inactive. Source: TAI GUO ZHI ZI *Gardenia thailandica* (leaf and twig). Ref: 4963.

**6150 5,7-Dihydroxy-6,8,2',3'-tetramethoxyflavone**

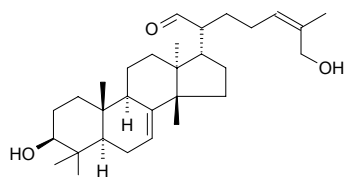
$C_{19}H_{18}O_8$  (374.35). Source: HUANG QIN *Scutellaria baicalensis*. Ref: 2.

**6151 3,4-Dihydroxy-6,7,3',4'-tetramethoxyflavonol**

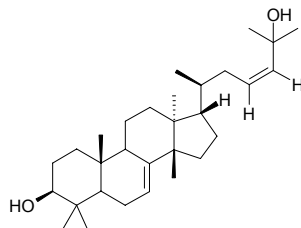
$C_{19}H_{20}O_7$  (360.37). Source: HUANG HUA HAO *Artemisia annua*. Ref: 2, 660.

**6152 (24Z)-3β,27-Dihydroxy-7,24-tirucalladien-21-al**

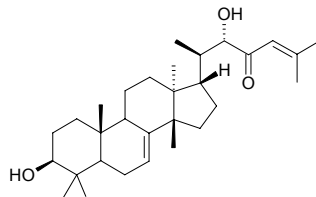
$C_{30}H_{48}O_3$  (456.72). Source: KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12.

**6153 3β,25-Dihydroxy-tirucalla-7,23-diene**

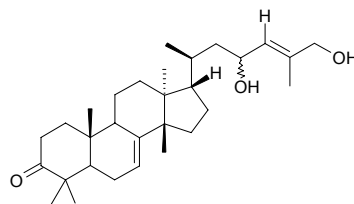
$C_{30}H_{50}O_2$  (442.73). Colorless needles (Me<sub>2</sub>CO), mp 168~170°C,  $[\alpha]_D^{27} = -31.0^\circ$  ( $c = 0.45$ , CHCl<sub>3</sub>). Source: HAI NAN JIAN MU *Dysoxylum hainanense* (bark). Ref: 3987.

**6154 3β,22S-Dihydroxy-tirucalla-7,24-dien-23-one**

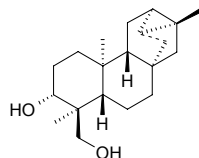
$C_{30}H_{48}O_3$  (456.72). White powder, mp 80~82°C,  $[\alpha]_D^{26} = +33.3^\circ$  ( $c = 0.45$ , CH<sub>3</sub>OH). Source: HAI NAN JIAN MU *Dysoxylum hainanense* (bark). Ref: 3987.

**6155 23,26-Dihydroxy-tirucalla-7,24-dien-3-one**

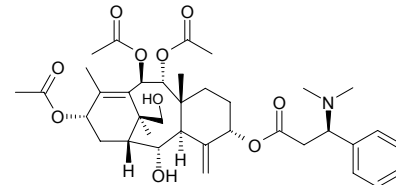
$C_{30}H_{48}O_3$  (456.72). Colorless needles (Me<sub>2</sub>CO), mp 138~140°C,  $[\alpha]_D^{19} = -72.5^\circ$  ( $c = 0.29$ , CH<sub>3</sub>OH). Source: HAI NAN JIAN MU *Dysoxylum hainanense* (bark). Ref: 3987.

**6156 3α,19-Dihydroxy trachylobane**

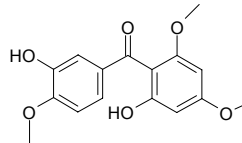
$C_{20}H_{32}O_2$  (304.48). mp 149~150°C,  $[\alpha]_D^{18} = -35^\circ$  ( $c = 4$ , CHCl<sub>3</sub>:MeOH = 1:1). Source: CHANG SUI BA DOU *Croton macrostachys*. Ref: 3983, 4552.

**6157 2α17-Dihydroxy-9α,10β,13α-triacetoxy-5α-(3'-N,N-dimethylamino-3'-phenyl)-propionyloxytaxa-4(20),11-diene**

$C_{37}H_{51}NO_{10}$  (669.82). Amorphous powder,  $[\alpha]_D^{22} = +39^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle leaf). Ref: 3886.

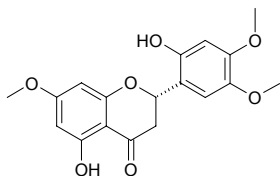
**6158 3',6-Dihydroxy-2,4,4'-trimethoxybenzophenone**

$C_{16}H_{16}O_6$  (304.30). Pale yellow solid, mp 161~162°C. Source: DAO NIAN ZI *Garcinia mangostana* (heartwood). Ref: 5311.

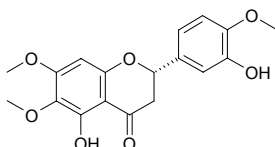


**6159 (2S)-5,2'-Dihydroxy-7,4',5'-trimethoxyflavanone**

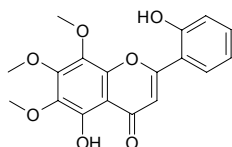
$C_{18}H_{18}O_7$  (346.34). Crystalline solid, mp 192~193 °C,  $[\alpha]_D^{25} = -8.5^\circ$  ( $c = 0.11$ , MeOH). **Pharm:** AChE inhibitor (*in vitro*,  $IC_{50} = (11.6 \pm 0.6) \mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (32.2 \pm 2.5) \mu\text{mol/L}$ ); BChE inhibitor (*in vitro*,  $IC_{50} = (15.7 \pm 2.0) \mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (163.0 \pm 5.0) \mu\text{mol/L}$ ). **Source:** CU YING MAO DIAN ZI CAO *Onosma hispida* (whole herb). **Ref:** 4333.

**6160 5,3'-Dihydroxy-6,7,4'-trimethoxyflavanone**

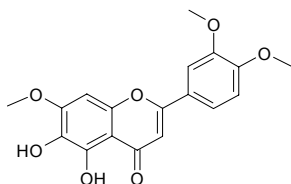
$C_{18}H_{18}O_7$  (346.34). **Pharm:** Cytotoxic (*in vitro*, PC12,  $GI_{50} = 2.27 \mu\text{g/mL}$ , control Cisplatin,  $GI_{50} = 0.111 \mu\text{g/mL}$ ; HCT116,  $GI_{50} = 2.87 \mu\text{g/mL}$ , control Cisplatin,  $GI_{50} = 0.794 \mu\text{g/mL}$ ). **Source:** DAN YE MAN JING ZI *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*] (seed: yield = 0.0017%dw). **Ref:** 4623.

**6161 5,2'-Dihydroxy-6,7,8-trimethoxyflavone**

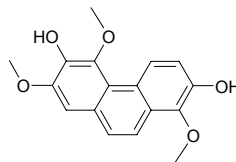
$C_{18}H_{16}O_7$  (344.32). **Source:** HUANG QIN *Scutellaria baicalensis*. **Ref:** 2.

**6162 5,6-Dihydroxy-7,3',4'-trimethoxyflavone**

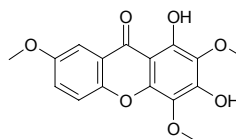
[25782-23-4]  $C_{18}H_{16}O_7$  (344.32). Pale yellow powder, mp 244~247°C. **Pharm:** PFTase inhibitor (100  $\mu\text{g/mL}$ , InRt = 62%,  $IC_{50} = 25 \mu\text{g/mL}$ )<sup>[5378]</sup>; cytotoxic (inhibits growth of hmn cancer cells: SW620,  $GI_{50} = (9.5 \pm 1.0) \mu\text{mol/L}$ , control Adriamycin,  $GI_{50} = 0.34 \mu\text{mol/L}$ ; A549,  $GI_{50} = (19.3 \pm 2.0) \mu\text{mol/L}$ , Adriamycin,  $GI_{50} = 0.21 \mu\text{mol/L}$ ; PC3,  $GI_{50} = (13.4 \pm 1.0) \mu\text{mol/L}$ , Adriamycin,  $GI_{50} = 0.39 \mu\text{mol/L}$ ; LOX-IMVI,  $GI_{50} = (4.9 \pm 0.5) \mu\text{mol/L}$ , Adriamycin,  $GI_{50} = 0.12 \mu\text{mol/L}$ ; HCT15,  $GI_{50} = (8.8 \pm 0.6) \mu\text{mol/L}$ , Adriamycin,  $GI_{50} = 0.84 \mu\text{mol/L}$ )<sup>[5378]</sup>; cytotoxic inactive (hmn breast cancer cell lines: MDA-MB-231, MCF7, T47D, 20  $\mu\text{g/mL}$ )<sup>[5378]</sup>; angiogenesis inhibitor inactive (chicken embryo chorioallantoic membrane (CAM) assay, 10  $\mu\text{g}$ )<sup>[5378]</sup>; antineoplastic (nude mouse, hmn tumor xenograft model, SW620 hmn colon cancer cell, 0.5% tween 80, ip 60mg/(kg·d), for 22 days, reduces tumor volume 44.6% at final day and no loss of body weight; good candidate as antitumor agents)<sup>[5378]</sup>. **Source:** AI YE *Artemisia argyi*, *Thymus piperella*, *Thymbra* spp. **Ref:** 1521, 5378.

**6163 2,6-Dihydroxy-1,5,7-trimethoxyphenanthrene**

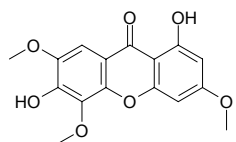
$C_{17}H_{16}O_5$  (300.31). **Source:** MI HUA SHI HU *Dendrobium densiflorum* (stem). **Ref:** 5171.

**6164 1,3-Dihydroxy-2,4,7-trimethoxyxanthone**

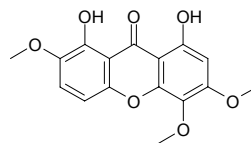
$C_{16}H_{14}O_7$  (318.29). Yellow solid. **Pharm:** Cytotoxic (*in vitro* antiproliferative activity, LoVo,  $IC_{50} = (34.6 \pm 2.3) \mu\text{mol/L}$ , control Doxorubicin,  $IC_{50} = (0.04 \pm 0.005) \mu\text{mol/L}$ ; LoVo/Doxo,  $IC_{50} = (39.5 \pm 1.8) \mu\text{mol/L}$ , Doxorubicin,  $IC_{50} = (10.2 \pm 0.1) \mu\text{mol/L}$ ). **Source:** PU TONG YUAN ZHI *Polygala vulgaris*. **Ref:** 4246.

**6165 1,6-Dihydroxy-3,5,7-trimethoxyxanthone**

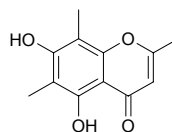
3,8-Dihydroxy-2,4,6-trimethoxyxanthone  $C_{16}H_{14}O_7$  (318.29). **Pharm:** Cytotoxic ( $P_{388}$   $ED_{50} = 5.11 \mu\text{g/mL}$ , control Mithramycin  $ED_{50} = 0.06 \mu\text{g/mL}$ , HT29  $ED_{50} = 6.25 \mu\text{g/mL}$ , Mithramycin  $ED_{50} = 0.08 \mu\text{g/mL}$ )<sup>[4094]</sup>. **Source:** SHAN ZHU ZI *Garcinia multiflora* (stem: yield = 0.000021%dw), TAI WAN LV DAO TENG HUANG *Garcinia linnii*, YUAN ZHI *Polygala tenuifolia*. **Ref:** 2, 4094, 4708.

**6166 1,8-Dihydroxy-3,4,7-trimethoxyxanthone**

$C_{16}H_{14}O_7$  (318.29). Yellow needles (EtOH), mp 165~169°C **Source:** CHUAN DONG ZHANG YA CAI *Swertia davidii*. **Ref:** 2237.

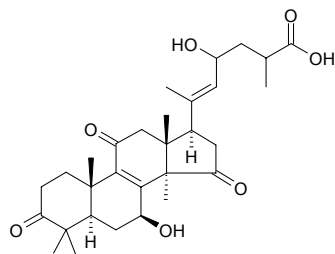
**6167 5,7-Dihydroxy-2,6,8-trimethylchromone**

8-Methyleugenitol  $C_{12}H_{12}O_4$  (220.23). **Source:** CUI YUN CAO *Selaginella uncinata* (whole herb). **Ref:** 4398.



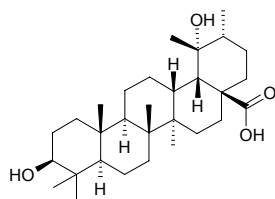


**6168** 7 $\beta$ ,23 $\xi$ -Dihydroxy-3,11,15-trioxolanosta-8,20E(22)-dien-26-oic acid  
 C<sub>30</sub>H<sub>42</sub>O<sub>7</sub> (514.67). Colorless amorphous solid,  $[\alpha]_D^{27} = +95.4^\circ$  ( $c = 0.2$ , MeOH). Source: SHU SHE *Ganoderma applanatum* (sporocarp: yield = 0.00057%). Ref: 4756.



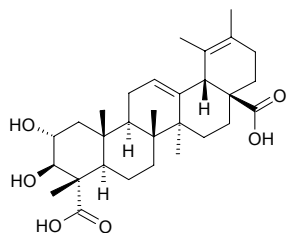
**6169** 3 $\beta$ ,19 $\alpha$ -Dihydroxyursan-28-oic acid

C<sub>30</sub>H<sub>50</sub>O<sub>4</sub> (474.73). Source: WU SE MEI *Lantana camara*. Ref: 744.



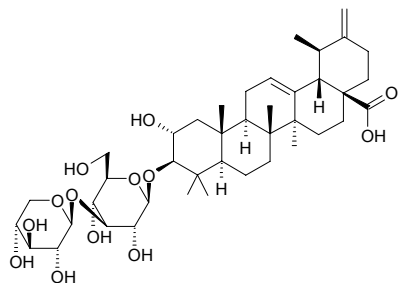
**6170** 2 $\alpha$ ,3 $\beta$ -Dihydroxyurs-12,19-dien-23,28-oic acid

C<sub>30</sub>H<sub>44</sub>O<sub>6</sub> (500.68). White powder, mp 320°C. Source: MAO E MEI *Rubus chroosepalus*. Ref: 866.



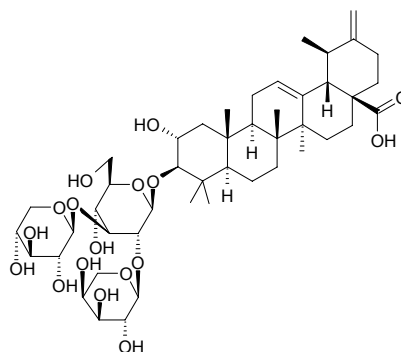
**6171** 2 $\alpha$ ,3 $\beta$ -Dihydroxyurs-12,20(30)-dien-28-oic acid 3-O- $\{\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)-D-glucopyranoside}

C<sub>41</sub>H<sub>64</sub>O<sub>13</sub> (764.96).  $[\alpha]_D^{25} = +32^\circ$  ( $c = 1$ , MeOH). Source: CI HUA LIAN ZI CAO *Alternanthera repens*. Ref: 2336.



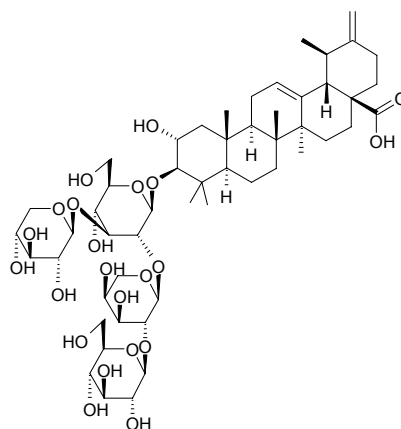
**6172** 2 $\alpha$ ,3 $\beta$ -Dihydroxyurs-12,20(30)-dien-28-oic acid 3-O- $\{O$ - $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3) $\beta$ -D-glucopyranoside}

C<sub>46</sub>H<sub>72</sub>O<sub>17</sub> (897.08).  $[\alpha]_D^{25} = +28^\circ$  ( $c = 1$ , MeOH). Source: CI HUA LIAN ZI CAO *Alternanthera repens*. Ref: 2336.



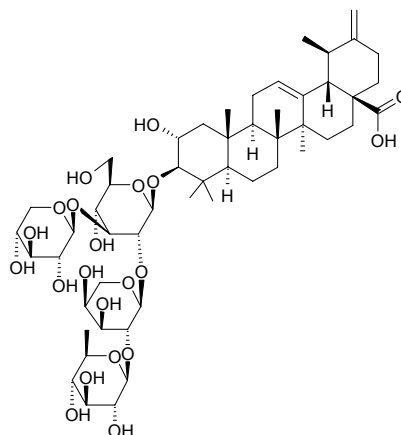
**6173** 2 $\alpha$ ,3 $\beta$ -Dihydroxyurs-12,20(30)-dien-28-oic acid 3-O- $\{O$ - $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3) $\beta$ -D-glucopyranoside}

C<sub>52</sub>H<sub>82</sub>O<sub>22</sub> (1059.22).  $[\alpha]_D^{25} = +19.0^\circ$  ( $c = 1$ , MeOH). Source: CI HUA LIAN ZI CAO *Alternanthera repens*. Ref: 2336.



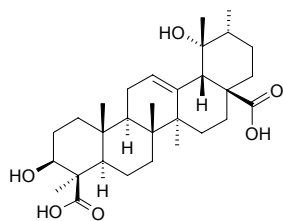
**6174** 2 $\alpha$ ,3 $\beta$ -Dihydroxyurs-12,20(30)-dien-28-oic acid 3-O- $\{O$ - $\beta$ -D-quinopyranosyl-(1 $\rightarrow$ 2)-O- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3) $\beta$ -D-glucopyranoside}

C<sub>52</sub>H<sub>82</sub>O<sub>21</sub> (1043.22).  $[\alpha]_D^{25} = +16^\circ$  ( $c = 1$ , MeOH). Source: CI HUA LIAN ZI CAO *Alternanthera repens*. Ref: 2336.

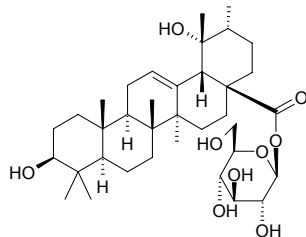


**6175 3 $\beta$ ,19 $\alpha$ -Dihydroxyurs-12-en-24,28-dioic acid**

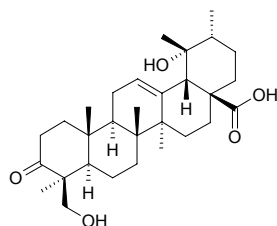
Ilexgenin A [108524-94-3] C<sub>30</sub>H<sub>46</sub>O<sub>6</sub> (502.70). Powder, mp > 300°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +30.8° (c = 0.97, pyridine). Source: MAO DONG QING *Ilex pubescens*. Ref: 1521.

**6176 3 $\beta$ ,19 $\alpha$ -Dihydroxyurs-12-en-28-oic acid 28- $\beta$ -D-glucopyranosyl ester**

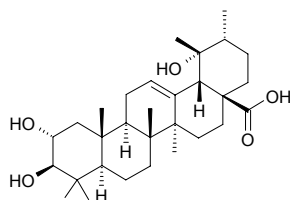
C<sub>36</sub>H<sub>58</sub>O<sub>9</sub> (634.86). Pharm: Cytotoxic (HSC-2, IC<sub>50</sub> = 50  $\mu$ g/mL; HGF, IC<sub>50</sub> > 200  $\mu$ g/mL). Source: DI YU *Sanguisorba officinalis*. Ref: 5160.

**6177 19,24-Dihydroxyurs-12-en-3-one-28-oic acid**

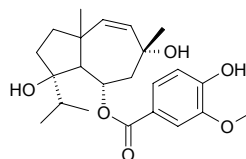
C<sub>30</sub>H<sub>46</sub>O<sub>5</sub> (486.70). Colorless prisms, mp 189.5~191.0°C, [ $\alpha$ ]<sub>D</sub><sup>17.6</sup> = 27.4° (c = 1.55, acetone). Source: DU JUAN HUA YE *Rhododendron simsii*. Ref: 749.

**6178 2 $\alpha$ ,19 $\alpha$ -Dihydroxyursolic acid**

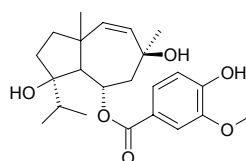
Tormentic acid [13850-16-3] C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). Yellowish crystalline powder, mp 265~269°C; 273°C; 288~289°C, [ $\alpha$ ]<sub>D</sub><sup>15</sup> = -17.3° (c = 0.2, pyridine); colorless crystals powder, mp 260~262°C (methanol-water), 273°C, [ $\alpha$ ]<sub>D</sub> = -20° (pyridine). Pharm: Antibacterial (*Streptococcus* var.); hypoglycemic (rat, orl, 10mg/kg)<sup>[900]</sup>. Source: BAN BIAN SU *Elsholtzia ciliata*, CU YE XUAN GOU ZI *Rubus alceaefolius*, PI PA YE *Eriobotrya japonica*, QIANG WEI GEN *Rosa multiflora*, SHAN DI XIANG CHA CAI *Isodon oresbia*, SHUI YANG MEI *Geum japonicum*, TUN XING GUO *Pygeum topengii*, WU LING ZHI *Trogopterus xanthipes*; *Pteromys volans*, XIN ZANG JIA ZI CAO *Arnebia euchroma*, ZE LAN *Lycopus lucidus*. Ref: 6, 447, 592, 595, 606, 637, 900.

**6179 4 $\beta$ ,8 $\alpha$ -Dihydroxy-6 $\alpha$ -vanilloyloxydauc-9-ene**

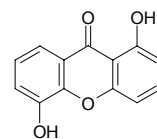
C<sub>23</sub>H<sub>32</sub>O<sub>6</sub> (404.51). Source: YI LANG A WEI *Ferula kuhistanica* (root). Ref: 3977.

**6180 4 $\beta$ ,8 $\beta$ -Dihydroxy-6 $\alpha$ -vanilloyloxydauc-9-ene**

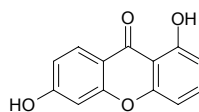
C<sub>23</sub>H<sub>32</sub>O<sub>6</sub> (404.51). Source: YI LANG A WEI *Ferula kuhistanica* (stem). Ref: 3977.

**6181 1,5-Dihydroxyxanthone**

C<sub>13</sub>H<sub>8</sub>O<sub>4</sub> (228.21). Pharm: Cytotoxic (P<sub>388</sub> ED<sub>50</sub> = 4.71  $\mu$ g/mL, control Mithramycin ED<sub>50</sub> = 0.06  $\mu$ g/mL, HT29 ED<sub>50</sub> = 5.01  $\mu$ g/mL, Mithramycin ED<sub>50</sub> = 0.08  $\mu$ g/mL)<sup>[4094]</sup>; antifungal (*Aspergillus fumigatus* CBS113.26, MIC<sub>80</sub> = 16  $\mu$ g/mL, control Amphotericin B, MIC<sub>80</sub> = 8  $\mu$ g/mL; *Aspergillus flavus* IHEM37.19, MIC<sub>80</sub> = 16  $\mu$ g/mL, Amphotericin B, MIC<sub>80</sub> = 8  $\mu$ g/mL; *Aspergillus niger* IHEM2951, MIC<sub>80</sub> = 31  $\mu$ g/mL, Amphotericin B, MIC<sub>80</sub> = 16  $\mu$ g/mL; *Aspergillus terreus* 5029.2000, MIC<sub>80</sub> = 62  $\mu$ g/mL; Amphotericin B, MIC<sub>80</sub> = 16  $\mu$ g/mL; *Candida albicans* ATCC663.90, MIC<sub>80</sub> = 62  $\mu$ g/mL; Amphotericin B, MIC<sub>80</sub> = 1  $\mu$ g/mL)<sup>[4995]</sup>. Source: FEI ZHOU HUANG GUO *Mammea Africana*, HAI TANG GUO *Calophyllum inophyllum* (root cortex and nut), MEI ZHOU MAN MI PING GUO *Mammea americana*, SU GE LAN HU TONG *Calophyllum caledonicum* (stem cortex), TAI WAN LV DAO TENG HUANG *Garcinia linii*, TIE LI MU *Mesua ferrea*., *Mesua thwaitesii*, *Calophyllum* spp., *Garcinia* spp. Ref: 1521, 3866, 4094, 4995.

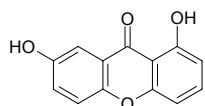
**6182 1,6-Dihydroxyxanthone**

C<sub>13</sub>H<sub>8</sub>O<sub>4</sub> (228.21). Source: CHAN YI TENG *Securidaca inappendiculata* (stem). Ref: 5238.

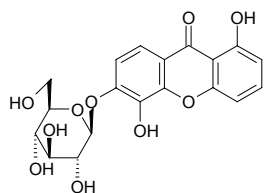


**6183 1,7-Dihydroxyxanthone**

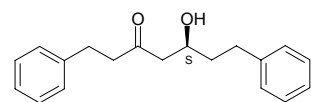
Euxanthone [529-61-3]  $C_{13}H_8O_4$  (238.21). **Pharm:** Cytotoxic ( $P_{388}$   $ED_{50}$  = 1.21  $\mu\text{g/mL}$ , control Mithramycin  $ED_{50}$  = 0.06  $\mu\text{g/mL}$ , HT29  $ED_{50}$  = 3.94  $\mu\text{g/mL}$ , Mithramycin  $ED_{50}$  = 0.08  $\mu\text{g/mL}$ )<sup>[4094]</sup>; cytotoxic inactive (hmn small cell lung cancer NCI-H187 cell line, control Ellipticine,  $IC_{50}$  = (0.35 $\pm$ 0.15)  $\mu\text{g/mL}$ )<sup>[5061]</sup>; anti-inflammatory. **Source:** CHAN YI TENG *Securidaca inappendiculata* (stem), DA HUA GE NA XIANG *Goniothalamus griffithii*, MEI ZHOU MAN MI PING GUO *Mammea Americana*, QIAO MU ZHUANG HUANG NIU MU *Cratogeomys arborescens* (stem cortex), TAI WAN LV DAO TENG HUANG *Garcinia linii*. **Ref:** 658, 4094, 5061, 5238, 5453.

**6184 1,5-Dihydroxyxanthone-6-O- $\beta$ -D-glucoside**

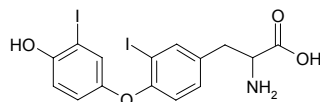
$C_{19}H_{18}O_{10}$  (406.35). Yellow amorphous powder, mp 265~266°C. **Source:** DI ER CAO *Hypericum japonicum*, HENG LI DI ER CAO *Hypericum henryi*. **Ref:** 775.

**6185 Dihydroxyashabushiketol**

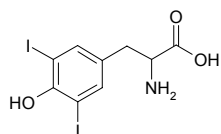
1,7-Diphenyl-5-hydroxy-3-heptanone  $C_{19}H_{22}O_2$  (282.39). Yellow oil,  $[\alpha]_D^{20}$  = -3° ( $c$  = 0.7, MeOH). **Pharm:** 5 $\alpha$ -Reductase inhibitor (rat prostate 5 $\alpha$ -Reductase,  $IC_{50}$  = (230 $\pm$ 70)  $\mu\text{mol/L}$ , control Curcumin,  $IC_{50}$  > 1000  $\mu\text{mol/L}$ , Finasteride,  $IC_{50}$  = 0.01  $\mu\text{mol/L}$ ). **Source:** GAO LIANG JIANG *Alpinia officinarum*. **Ref:** 5345.

**6186 3,3'-Diiodothyronine**

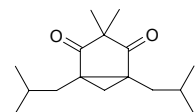
$C_{15}H_{13}I_2NO_4$  (525.08). **Source:** NIU YE *Bos taurus domesticus*; *Bubalus bubalis*. **Ref:** 6.

**6187 Diiodotyrosine**

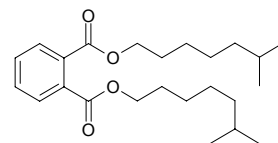
[66-02-4]  $C_9H_9I_2NO_3$  (432.99). mp (+) 202°C (dec), (-) 213°C (dec), ( $\pm$ ) 202°C (dec). **Source:** NIU YE *Bos taurus domesticus*; *Bubalus bubalis*. **Ref:** 6.

**6188 1,5-Di-isobutyl-3,3-dimethyl[3,1,0]cyclohexadione**

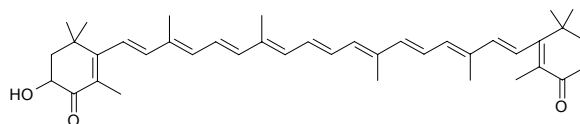
$C_{16}H_{26}O_2$  (250.38). **Source:** DANG SHEN *Codonopsis pilosula*. **Ref:** 2.

**6189 Diisocapryl phthalate**

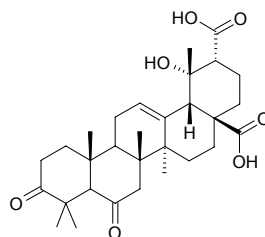
[27554-26-3]  $C_{24}H_{38}O_4$  (390.57). **Source:** SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2.

**6190 4,4'-Diketo-3-hydroxy- $\beta$ -carotene**

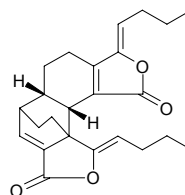
$C_{40}H_{52}O_3$  (580.86). **Source:** JIN YU *Carassius auratus*. **Ref:** 6.

**6191 Diketouncaric acid**

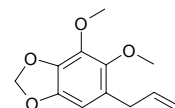
$C_{30}H_{42}O_7$  (514.67). **Source:** CHANG HUA GOU TENG *Uncaria longiflora*, TUO YUAN GOU TENG *Uncaria elliptica*, *Uncaria thwaitesii*. **Ref:** 5341.

**6192 (Z,Z')-Diligustilide**

$C_{24}H_{28}O_4$  (380.49). **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. **Ref:** 2.

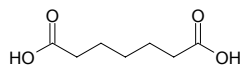
**6193 Dillapiol**

Dillapiole [484-31-1]  $C_{12}H_{14}O_4$  (222.24). Oil, mp 29.5°C, bp 285°C, bp 162°C/11mmHg, bp 100°C/0.8mmHg. **Pharm:** Antihepatotoxin; inhibits mutation (100  $\mu\text{mol/L}$ , Ames InRt = 43.4%); molluscicide (10mg/L); synergist of pyrethrin; sedative; hypnotic (prolongs sleeping time induced by hexobarbital,  $ED_{50}$  = 1.57mg/kg). **Source:** DA YE XIANG RU *Mosla dianthera*, GOU ZHUANG HU JIAO *Piper aduncum*, HUI XIANG GEN *Foeniculum vulgare*, JIAN ZI SU *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], SHI LUO ZI *Anethum graveolens*, SU GE LAN DANG GUI *Ligusticum scoticum*, TAI WAN JI NING *Orthodon formosanus*, XIN HE LAN HU JIAO *Piper nove-hollandae*, YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*], *Erigeron* sp. **Ref:** 6, 658, 900.

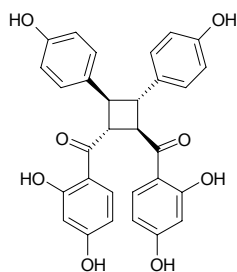


**6194 Dimelic acid**

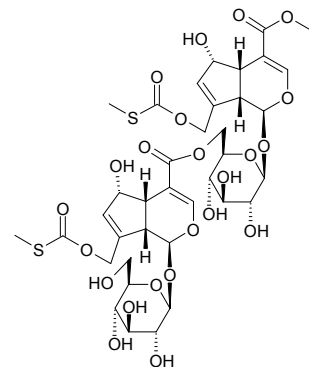
Heptanedioic acid [111-16-0] C<sub>7</sub>H<sub>12</sub>O<sub>4</sub> (160.17). Prisms (H<sub>2</sub>O), mp 104~105°C, bp 212°C/10mmHg, pK<sub>a1</sub> = 4.46, pK<sub>a2</sub> = 5.58 (25°C). Source: BI MA ZI *Ricinus communis*, *Anthyllis sericea*. Ref: 658, 1521.

**6195 Dimeric 4,2',4'-trihydroxydihydrochalcone**

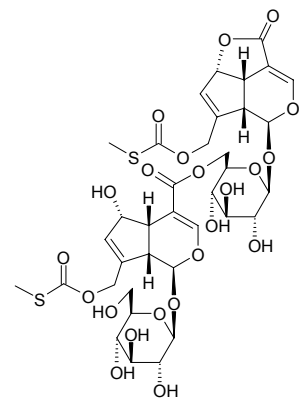
*rel*-(1 $\beta$ ,2 $\alpha$ )-Di-(2,4-dihydroxybenzoyl)-*rel*-(3 $\beta$ ,4 $\alpha$ )-di-(4-hydroxyphenyl)-cyclobutane C<sub>30</sub>H<sub>24</sub>O<sub>8</sub> (512.52). Yellow oil. Source: FEI ZHOU BAI ZI LIAN *Agapanthus africanus* (root). Ref: 5279.

**6196 Dimer iridoid glucoside 10**

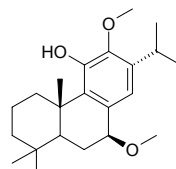
C<sub>37</sub>H<sub>48</sub>O<sub>23</sub>S<sub>2</sub> (924.91). Yellow powder, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -5.7° (c = 1.00, MeOH). Source: JI SHI TENG *Paederia scandens*. Ref: 1963.

**6197 Dimer iridoid glucoside 12**

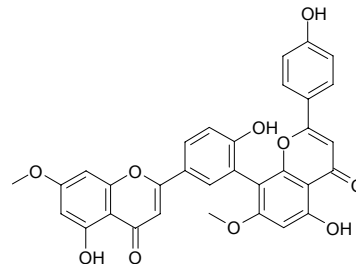
C<sub>36</sub>H<sub>44</sub>O<sub>22</sub>S<sub>2</sub> (892.87). Yellow powder, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -108.9° (c = 0.54, MeOH). Source: JI SHI TENG *Paederia scandens*. Ref: 1963.

**6198 7 $\beta$ ,12-Dimethoxy-8,11,13-abietatrien-11-ol**

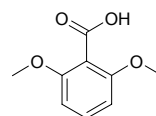
C<sub>22</sub>H<sub>34</sub>O<sub>3</sub> (346.51). Source: DU SONG SHI *Juniperus rigida*. Ref: 6.

**6199 7,7''-Dimethoxyamentoflavone**

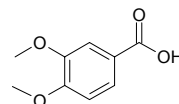
C<sub>32</sub>H<sub>22</sub>O<sub>10</sub> (566.53). Source: YUN NAN SUI HUA SHAN *Amentotaxus yunnanensis* (leaf and twig: yield = 0.020%dw). Ref: 4707.

**6200 2,6-Dimethoxy benzoic acid**

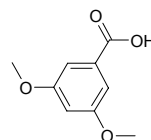
C<sub>9</sub>H<sub>10</sub>O<sub>4</sub> (182.18). Pharm: Antioxidant (hydroxyl radical scavenger, IC<sub>50</sub> = 1.51 μmol/L, control EGCG, IC<sub>50</sub> = 0.43 μmol/L, superoxide anion radical scavenger, IC<sub>50</sub> = 3.21 μmol/L, control EGCG, IC<sub>50</sub> = 0.53 μmol/L). Source: XIAN MAO *Curculigo orchoides* (rhizome). Ref: 4499.

**6201 3,4-Dimethoxybenzoic acid**

Veratric acid C<sub>9</sub>H<sub>10</sub>O<sub>4</sub> (182.18). Pharm: NO production inhibitor inactive (LPS-activated macrophage-like J774.1 cells, IC<sub>50</sub> = 129 μg/mL, control L-NMMA, IC<sub>50</sub> = 27.4 μg/mL)<sup>[4473]</sup>. Source: CHANG BAN JIN LIAN HUA *Trollius macropetalus*, CHOU LENG SHAN *Abies nephrolepis*, HE SE ZHONG HUA SHU *Tabebuia avellaneda* (inner bark), HONG CHE ZHOU CAO *Trifolium pratense*, JIN LIAN HUA *Trollius chinensis* [Syn. *Trollius asiaticus* var. *chinensis*], SANG HUANG *Phellinus igniarius*, TAI WAN GE NA XIANG *Goniothalamus amuyon* (fresh leaf: yield = 0.00012%fw)<sup>[4686]</sup>. Ref: 660, 4473, 4686.

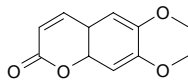
**6202 3,5-Dimethoxybenzoic acid**

C<sub>9</sub>H<sub>10</sub>O<sub>4</sub> (182.18). Source: DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield = 0.0017%dw). Ref: 4767.

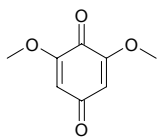


**6203 6,7-Dimethoxy-2H-1-benzopyran-2-one**

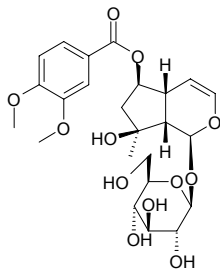
[120-08-1] C<sub>11</sub>H<sub>12</sub>O<sub>4</sub> (208.22). **Pharm:**  $\alpha$ -Glucosidase inhibitor (type VI, IC<sub>50</sub> = 0.44mmol/L, control 1-Deoxynojirimycin, IC<sub>50</sub> = 0.3mmol/L); thrombin inhibitor inactive;  $\beta$ -glucuronidase inhibitor inactive<sup>[4155]</sup>. **Source:** YUN NAN TU SI ZI *Cuscuta reflexa*. **Ref:** 4155.

**6204 2,6-Dimethoxybenzoquinone**

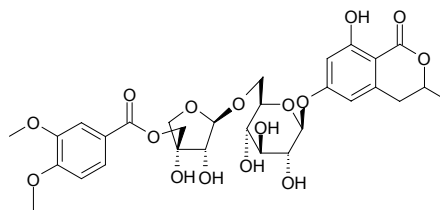
2,6-Dimethoxy-*p*-benzoquinone [530-55-2] C<sub>8</sub>H<sub>8</sub>O<sub>4</sub> (168.15). Yellow needles, mp 260°C, easy to sublimation when heated. **Pharm:** Cytotoxic (P<sub>388</sub> *in vitro*); Cytotoxic (K562 cells, IC<sub>50</sub> = 25.50 $\mu$ g/mL)<sup>[4600]</sup>; cytotoxic (P<sub>388</sub>, ED<sub>50</sub> = 0.12 $\mu$ g/mL, control Mithramycin, ED<sub>50</sub> = 0.08 $\mu$ g/mL; HT29, ED<sub>50</sub> = 3.97 $\mu$ g/mL, Mithramycin, ED<sub>50</sub> = 0.07 $\mu$ g/mL; A549, ED<sub>50</sub> = 10.57 $\mu$ g/mL, Mithramycin, ED<sub>50</sub> = 0.06 $\mu$ g/mL)<sup>[4947]</sup>; platelet aggregation inhibitor (washed rabbit platelets, 50 $\mu$ g/mL, 100 $\mu$ mol/L AA-induced, AggRt = 100%, control 50 $\mu$ mol/L Aspirin, AggRt = 100%; 10 $\mu$ g/mL collagen-induced, AggRt = 100%, 100 $\mu$ mol/L Aspirin, AggRt = 4.9%; 0.1U/mL thrombin-induced, AggRt = 100%, 100 $\mu$ mol/L Aspirin, AggRt = 1.7%; 2ng/mL PAF-induced, AggRt = 100%, 100 $\mu$ mol/L Aspirin, AggRt = 2.1%)<sup>[5427]</sup>. **Source:** CHUN FU SHOU CAO *Adonis vernalis*, CUI TU LUO FU MU *Rauvolfia vomitoria*, CHU BAI PI *Ailanthus altissima*, CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*], JIAN YE CEN *Fraxinus szaboana* [Syn. *Fraxinus chinensis* var. *acuminata*], MI MAI E ZHANG CHAI *Schefflera venulosa* (stem cortex), XIAO MAI *Triticum aestivum* [Syn. *Triticum vulgare*], PI ZHEN XING YAO HUA *Wikstroemia lanceolata* (stem and root), SAN QI CAO *Gynura segetum* [Syn. *Gynura japonica*] (rhizome). **Ref:** 2, 6, 658, 660, 4600, 4947, 5427.

**6205 6-O-(3,4-Dimethoxybenzoyl)-ajugol**

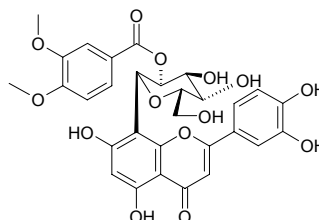
C<sub>24</sub>H<sub>32</sub>O<sub>12</sub> (512.52). **Pharm:** NO production inhibitor (LPS-activated macrophage-like J774.1 cells, IC<sub>50</sub> = 15.1 $\mu$ g/mL, control *L*-NMMA, IC<sub>50</sub> = 27.4 $\mu$ g/mL)<sup>[4473]</sup>. **Source:** HE SE ZHONG HUA SHU *Tabebuia avellaneda* (inner bark). **Ref:** 4473.

**6206  $\beta$ -D-[5-O-(3,4-Dimethoxybenzoyl)]-apiofuranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl**

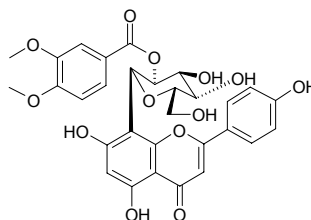
C<sub>30</sub>H<sub>36</sub>O<sub>16</sub> (652.61). Amorphous powder,  $[\alpha]_D^{22} = -94.8^\circ$  ( $c = 1.59$ , MeOH). **Source:** BAN ZHEN ZHONG HUA SHU *Tabebuia impetiginosa* (bark). **Ref:** 3817.

**6207 2''-O-(3''',4'''-Dimethoxybenzoyl)orientin**

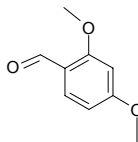
C<sub>30</sub>H<sub>28</sub>O<sub>14</sub> (612.55). Yellow powder, mp 202~204°C,  $[\alpha]_D^{20} = -72.2^\circ$  ( $c = 0.054$ , CH<sub>3</sub>OH). **Source:** DUAN BAN JIN LIAN HUA *Trollius ledebourii* (flower: yield = 0.00033%dw). **Ref:** 4743.

**6208 2''-O-(3''',4'''-Dimethoxybenzoyl)vitexin**

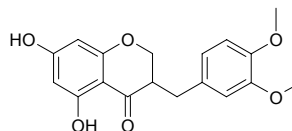
C<sub>30</sub>H<sub>28</sub>O<sub>13</sub> (596.55). Pale yellow powder, mp 277~279°C,  $[\alpha]_D^{20} = -182.7^\circ$  ( $c = 0.064$ , CH<sub>3</sub>OH). **Source:** DUAN BAN JIN LIAN HUA *Trollius ledebourii* (flower: yield = 0.00073%dw). **Ref:** 4743.

**6209 2,4-Dimethoxybenzaldehyde**

[613-45-6] C<sub>9</sub>H<sub>10</sub>O<sub>3</sub> (166.18). mp 71°C, bp 165°C/10mmHg. **Source:** XIANG GEN QIN *Osmorhiza aristata* var. *laxa*. **Ref:** 6.

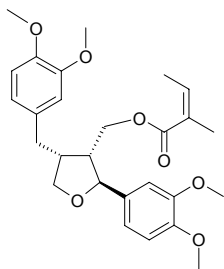
**6210 3-(3,4-Dimethoxybenzyl)-5,7-dihydroxychroman-4-one**

C<sub>18</sub>H<sub>18</sub>O<sub>6</sub> (330.34). White powder, mp 183~185°C,  $[\alpha]_D^{25} = -74.7^\circ$  ( $c = 0.39$ , MeOH). **Source:** *Scilla nervosa* (bulb). **Ref:** 2381.



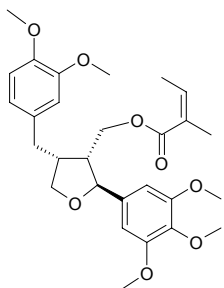
**6211 [(2*S*,3*R*,4*R*)-4-(3,4-Dimethoxybenzyl)-2-(3,4-dimethoxyphenyl)-tetrahydrofuran-3-yl]-methyl (2*Z*)-2-methylbut-2-en-oate**

$C_{27}H_{34}O_7$  (470.57). **Pharm:** Anti-Inflammatory (anti-oedema, control oedema =  $(7.8 \pm 0.3)$ mg,  $100 \mu\text{g}/\text{cm}^2$ , oedema =  $(4.0 \pm 0.6)$ mg,  $p < 0.05$ , reduction = 49%, Indomethacin oedema =  $(3.4 \pm 0.3)$ mg,  $p < 0.05$ , reduction = 56%)<sup>[4985]</sup>; leukotriene biosynthesis Inhibitor (*in vitro*,  $IC_{50} = 10.7 \mu\text{mol}/\text{L}$ ,  $p < 0.05$ , control Zileuton,  $IC_{50} = 10.4 \mu\text{mol}/\text{L}$ ,  $p < 0.05$ )<sup>[5037]</sup>. **Source:** GAO SHAN HUO RONG CAO *Leontopodium alpinum* (root). **Ref:** 4985, 5037.



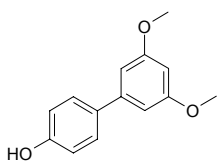
**6212 [(2*S*,3*R*,4*R*)-4-(3,4-Dimethoxybenzyl)-2-(3,4,5-trimethoxyphenyl)-tetrahydrofuran-3-yl]-methyl (2*Z*)-2-methylbut-2-en-oate**

$C_{28}H_{36}O_8$  (500.59). Colorless gum,  $[\alpha]_D^{20} = +20.86^\circ$ , ( $c = 0.302$ , MeOH). **Source:** GAO SHAN HUO RONG CAO *Leontopodium alpinum* (root). **Ref:** 5037.



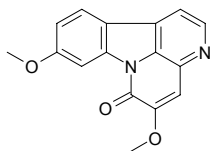
**6213 3',5'-Dimethoxy-biphenyl-4-ol**

$C_{14}H_{14}O_3$  (230.27). White powder. **Pharm:** Cytotoxic (*in vitro* antiproliferative activity, LoVo,  $IC_{50} > 40 \mu\text{mol}/\text{L}$ , control Doxorubicin,  $IC_{50} = (0.04 \pm 0.005) \mu\text{mol}/\text{L}$ ). **Source:** PU TONG YUAN ZHI *Polygala vulgaris*. **Ref:** 4246.



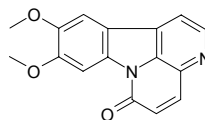
**6214 5,9-Dimethoxycanthin-6-one**

$C_{16}H_{12}N_2O_3$  (280.29). **Source:** *Eurycoma* sp. **Ref:** 4556.



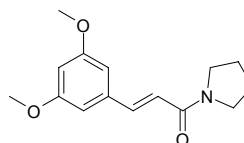
**6215 9,10-Dimethoxycanthin-6-one**

$C_{16}H_{12}N_2O_3$  (280.29). **Source:** CHANG YE KUAN MU *Eurycoma longifolia* (root: yield = 0.000019%dw), *Eurycoma harmandiana* (root). **Ref:** 4728, 5137.



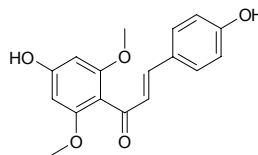
**6216 3',5'-Dimethoxy-cinnamic acid pyrrolidine**

$C_{15}H_{19}NO_3$  (261.32). **Pharm:** Platelet aggregation inhibitor (rbt platelets induced by thrombin,  $100 \mu\text{g}/\text{mL}$ , add thrombin  $0.1 \text{u}/\text{mL}$ , AggRt =  $(92.6 \pm 0.4)\%$ , control AggRt =  $(92.6 \pm 0.4)\%$ ; add AA,  $100 \mu\text{mol}/\text{L}$ ,  $100 \mu\text{g}/\text{mL}$ , AggRt =  $(85.2 \pm 0.9)\%$ , control AggRt =  $(87.8 \pm 0.3)\%$ , Aspirin  $50 \mu\text{g}/\text{mL}$ , AggRt =  $(11.7 \pm 10.1)\%$ ; add collagen  $10 \mu\text{g}/\text{mL}$ ,  $100 \mu\text{g}/\text{mL}$ , AggRt =  $(86.9 \pm 1.2)\%$ , control AggRt =  $(89.3 \pm 0.5)\%$ , Aspirin  $100 \mu\text{g}/\text{mL}$ , AggRt =  $(81.3 \pm 0.5)\%$ ; add PAF  $2 \text{ng}/\text{mL}$ ,  $100 \mu\text{g}/\text{mL}$ , AggRt =  $(91.5 \pm 0.3)\%$ , control AggRt =  $(93.0 \pm 0.6)\%$ ). **Source:** TAI WAN HU JIAO *Piper taiwanense* (stem). **Ref:** 4938.



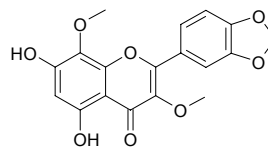
**6217 2',6'-Dimethoxy-4,4'-dihydroxychalcone**

$C_{17}H_{16}O_5$  (300.31). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 28.7 \mu\text{mol}/\text{L}$ ; HT1080,  $ED_{50} = 50.5 \mu\text{mol}/\text{L}$ )<sup>[3042]</sup>. **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00018%–0.0129%). **Ref:** 3042, 3048.



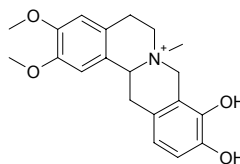
**6218 3,8-Dimethoxy-5,7-dihydroxy-3',4'-methylenedioxyflavone**

$C_{18}H_{14}O_8$  (358.31). Yellow crystals. **Source:** RU NI WENG DAO MI ZHU YU *Melicope coodeana*. **Ref:** 1975.



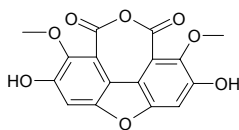
**6219 2,3-Dimethoxy-9,10-dihydroxy-N-methyl-tetrahydroprotoberberine quaternary salt**

Haitinosporine  $C_{20}H_{24}NO_4^+$  (342.42). White crystals, mp  $242\text{--}245^\circ\text{C}$ . **Source:** HAI NAN QING NIU DAN *Tinospora hainanensis*. **Ref:** 408.

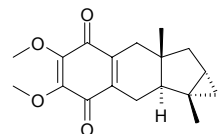


**6220 2,2'-Dimethoxy-3,3'-dihydroxy-5,5'-oxygen-6,6'-biphenylformic anhydride**

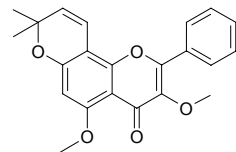
$C_{16}H_{10}O_8$  (330.25). White powder, mp 296.5~298.0°C. Source: DA JI<sup>(3)</sup>  
*Euphorbia pekinensis*. Ref: 360.

**6221 (1aS\*,1bS\*,7aS\*,8aS\*)-4,5-Dimethoxy-1a,7a-dimethyl-1,1a,1b,2,7,7a,8,8a-octahydrocyclopropa[3,4]cyclopenta[1,2-b]naphthalene-3,6-dione**

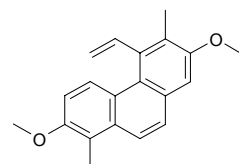
$C_{18}H_{22}O_4$  (302.37). Yellowish oil. Pharm: Cytotoxic (B-16  $IC_{50}$  = 1.30 $\mu$ g/mL, control Doxorubicin  $IC_{50}$  = 0.03 $\mu$ g/mL; MCF7  $IC_{50}$  = 5.04 $\mu$ g/mL, Doxorubicin  $IC_{50}$  = 0.20 $\mu$ g/mL; HCT8  $IC_{50}$  = 2.49 $\mu$ g/mL, Doxorubicin  $IC_{50}$  = 0.04 $\mu$ g/mL; HL-60  $IC_{50}$  = 1.56 $\mu$ g/mL, Doxorubicin  $IC_{50}$  = 0.02 $\mu$ g/mL; CEM  $IC_{50}$  = 1.24 $\mu$ g/mL, Doxorubicin  $IC_{50}$  = 0.02 $\mu$ g/mL). Source: QIU ZHUANG PO BU MU *Cordia globosa* (root). Ref: 5043.

**6222 3,5-Dimethoxy-2'',2''-dimethylpyrano-(5'',6'':8,7)-flavone**

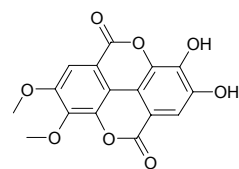
$C_{22}H_{20}O_5$  (364.40). Viscous yellowish oil. Source: *Lonchocarpus latifolius* (root). Ref: 5108.

**6223 2,7-Dimethoxy-1,6-dimethyl-5-vinylphenanthrene**

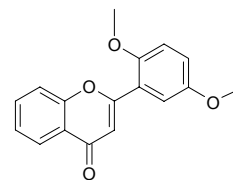
$C_{20}H_{20}O_2$  (292.38). Source: JIAN DENG XIN CAO *Juncus acutus*. Ref: 1965.

**6224 2,3-Dimethoxyellagic acid**

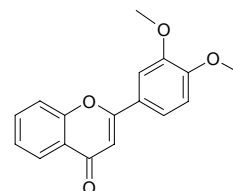
3,4-Di-*O*-methylsuccinic acid  $C_{16}H_{10}O_8$  (330.25). mp > 300°C. Source: BA WANG BIAN *Euphorbia royleana*, WU JIU MU GEN PI *Sapium sebiferum*. Ref: 6.

**6225 2',5'-Dimethoxyflavone**

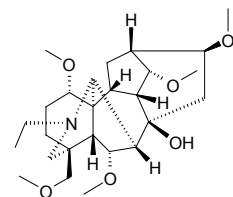
$C_{17}H_{14}O_4$  (282.30). Light yellow solid ( $CHCl_3$ ). Source: HUANG HUA JIU LUN CAO *Primula veris* [Syn. *Primula officinalis*] (leaf). Ref: 5275.

**6226 3',4'-Dimethoxyflavone**

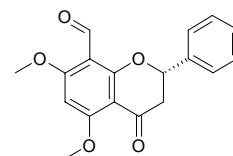
$C_{17}H_{14}O_4$  (282.30). White crystalline solid ( $CHCl_3$ ). Source: HUANG HUA JIU LUN CAO *Primula veris* [Syn. *Primula officinalis*] (leaf). Ref: 5275.

**6227 6,14-Dimethoxyforensicine**

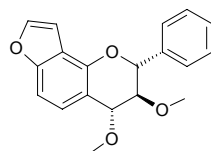
$C_{26}H_{43}NO_6$  (465.64). White powder,  $[\alpha]_D^{18}$  = +27.2° ( $c$  = 0.31, EtOH). Source: BAI HOU WU TOU *Aconitum leucostomum*. Ref: 483.

**6228 (2S)-5,7-Dimethoxy-8-formylflavanone**

Anticancer Flavonoid PMV70P691-016  $C_{18}H_{16}O_5$  (312.33). Yellow oil,  $[\alpha]_D$  = -28.0° ( $c$  = 0.10, MeOH). Pharm: Cytotoxic (*in vitro*, Hepa 1c1c7 mouse hepatoma cells,  $IC_{50}$  > 10 $\mu$ g/mL, CD = 2.6 $\mu$ g/mL, CI > 3.9; control Sulforaphane,  $IC_{50}$  = 2.1 $\mu$ g/mL, CD = 0.087 $\mu$ g/mL, CI = 24.1)<sup>[4721]</sup>; cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells)<sup>[5038]</sup>. Source: SHUI LIU DOU *Pongamia pinnata* (stem cortex: yield = 0.0001%)<sup>[4721]</sup>. Ref: 4721, 5038.

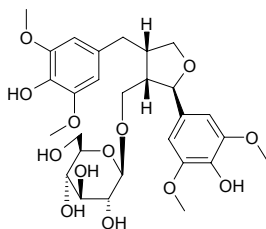
**6229 (2,3-trans-3,4-trans)-3,4-Dimethoxy-(2'',3'':7,8)-furanoflavon**

$C_{19}H_{18}O_4$  (310.35). Needles,  $[\alpha]_D^{20}$  = +21° ( $c$  = 0.4,  $CH_2Cl_2$ ). Source: *Lonchocarpus latifolius* (root). Ref: 5108.

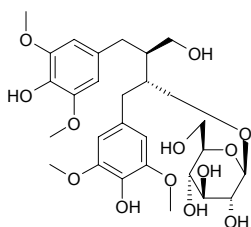


**6230 (+)-5,5'-Dimethoxy-9-O-β-D-glucopyranosyl lariciresinol**

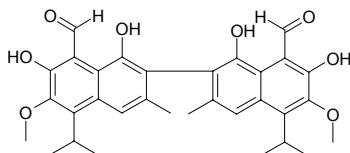
$C_{28}H_{38}O_{13}$  (582.61). **Pharm:** Anti-HSV-1 inactive ( $EC_{50} > 172 \mu\text{mol/L}$ ). **Source:** MA LAN GEN *Baphicacanthus cusia* [Syn. *Strobilanthes cusia*]. **Ref:** 2577.

**6231 (+)-5,5'-Dimethoxy-9-O-β-D-glucopyranosyl secoisolariciresinol**

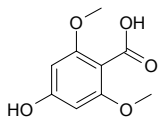
$C_{28}H_{40}O_{13}$  (584.62). **Source:** MA LAN GEN *Baphicacanthus cusia* [Syn. *Strobilanthes cusia*]. **Ref:** 2577.

**6232 6,6'-Dimethoxygossypol**

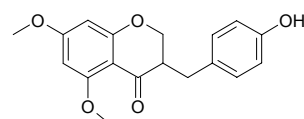
$C_{32}H_{34}O_8$  (546.62). mp 181~184°C. **Source:** MIAN HUA GEN *Gossypium herbaceum*. **Ref:** 6.

**6233 1,5-Dimethoxy-3-hydroxybenzoic acid**

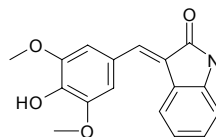
$C_9H_{10}O_5$  (198.18). **Source:** MAO GUO QI *Acer nikoense* (stem cortex). **Ref:** 4304.

**6234 5,7-Dimethoxy-3-(4-hydroxybenzyl)chroman-4-one**

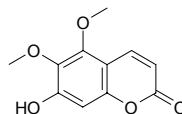
$C_{18}H_{18}O_5$  (314.34). Acetyl-: vitreous off-white solid. **Source:** *Scilla nervosa*. **Ref:** 2328.

**6235 (E)-3-(3',5'-Dimethoxy-4'-hydroxybenzylidene)-2-indolinone**

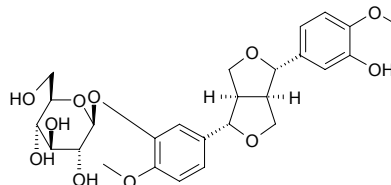
$C_{17}H_{15}NO_4$  (297.31). Yellow column crystals mp 204~206°C. **Source:** BAN LAN GEN *Isatis indigotica*. **Ref:** 2119.

**6236 5,6-Dimethoxy-7-hydroxycoumarin**

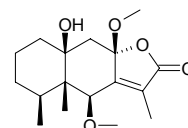
$C_{11}H_{10}O_5$  (222.20). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 2.

**6237 4,4-Dimethoxy-3'-hydroxy-7,9':7',9-diepoxy lignan-3-O-β-D-glucopyranoside**

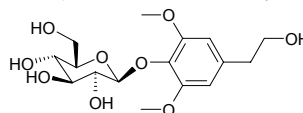
$C_{26}H_{32}O_{11}$  (520.54). White amorphous powder,  $[\alpha]_D^{21} = -54.69^\circ$ . **Source:** DA YE XIAN MAO *Curculigo capitulata* [Syn. *Leucojum capitulata*]. **Ref:** 2493.

**6238 6β,8β-Dimethoxy-10β-hydroxyeremophil-7(11)-en-12,8α-olide**

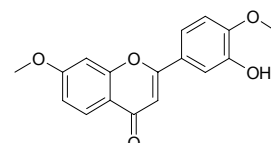
$C_{17}H_{26}O_5$  (310.39). Colorless plates, mp 164~166°C (Me<sub>2</sub>CO),  $[\alpha]_D^{20} = +166.7^\circ$  ( $c = 0.27$ , Me<sub>2</sub>CO). **Pharm:** Antibacterial (*Staphylococcus aureus*, antibacterial circle = 13~16mm; *Bacillus subtilis*, antibacterial circle = 13~16mm; *Escherichia coli*, antibacterial circle < 12mm). **Source:** JIAN YE TOU WU GEN *Ligularia sagitta*. **Ref:** 5382.

**6239 2,6-Dimethoxy-4-(2-hydroxyethyl)phenol 1-O-β-D-glucopyranoside**

$C_{16}H_{24}O_9$  (360.36). Off-white amorphous powder,  $[\alpha]_D^{20} = +19.3^\circ$  ( $c = 0.7$ , MeOH). **Source:** AN MO LE *Phyllanthus emblica* (root). **Ref:** 3065.

**6240 7,4'-Dimethoxy-3'-hydroxyflavone**

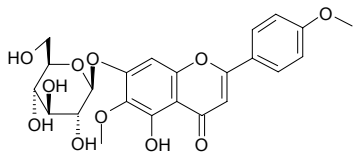
$C_{17}H_{14}O_5$  (298.30). Yellow amorphous powder, mp 128~130°C (MeOH); colorless needles (MeOH), mp 190~192°C. **Source:** WU CI ZHU YING HUA *Calliandra inermis*, XIANG HE HUAN *Albizzia odoratissima* (root cortex). **Ref:** 2588, 4229.



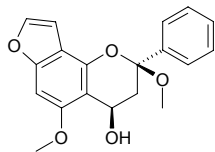


**6241 6,4'-dimethoxy-5-hydroxyflavone 7-glucoside**

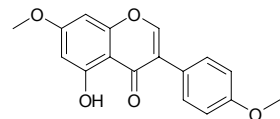
$C_{23}H_{24}O_{11}$  (476.44). Yellow amorphous powder. Source: AI JI ZHONG ZHI YUAN WEI *Iris cartholiniae*. Ref: 1880.

**6242 2,5-Dimethoxy-4-hydroxy-[2'',3'':7,8]-furanoflavan**

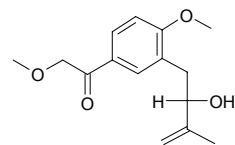
$C_{19}H_{18}O_5$  (326.35). Colorless crystals, mp 135~136°,  $[\alpha]_D^{28} = +42.1^\circ$  ( $c = 0.3$ , MeOH). Source: HONG E JI XUE TENG *Millettia erythrocalyx*. Ref: 1937.

**6243 7,4'-Dimethoxy-5-hydroxyisoflavone**

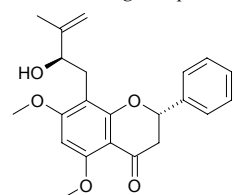
$C_{17}H_{14}O_5$  (298.30). Pale yellow crystals (CHCl<sub>3</sub>: petrol = 1:2, v/v), mp 145~146°C. Source: MENG MAI ROU DOU KOU *Myristica malabarica* (heartwood). Ref: 3906.

**6244 2,4'-Dimethoxy-3'-(2-hydroxy-3-methyl-3-butenyl)acetophenone**

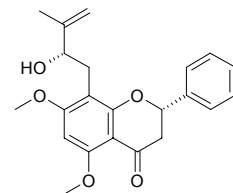
$C_{15}H_{20}O_4$  (264.32). Yellow oil,  $[\alpha]_D^{25} = -25.0^\circ$  ( $c = 0.04$ , MeOH). Pharm: Prolyl endopeptidase inhibitor (flavobacterium origin,  $IC_{50} = (845 \pm 0.005) \mu\text{mol/L}$ , control Z-pro-prolinal,  $IC_{50} = (0.884 \pm 0.025) \mu\text{mol/L}$ ); thrombin inhibitor inactive (bovine source, control Leupeptin,  $IC_{50} = (45.4 \pm 0.03) \mu\text{mol/L}$ ). Source: JIA LIAN QIAO *Duranta repens* (whole herb). Ref: 4179.

**6245 (2S)-5,7-Dimethoxy-8-(2R-hydroxy-3-methyl-3-butenyl)-flavanone**

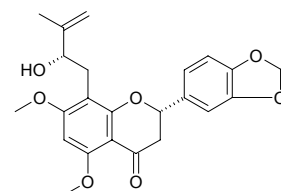
$C_{22}H_{24}O_5$  (368.43). Yellow oil,  $[\alpha]_D = -33.0^\circ$  ( $c = 0.1$ , MeOH). Source: SHUI LIU DOU *Pongamia pinnata* (stem cortex: yield = 0.00062%). Ref: 4721.

**6246 (2S)-5,7-Dimethoxy-8-(2S-hydroxy-3-methyl-3-butenyl)-flavanone**

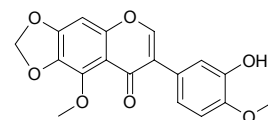
Anticancer Flavonoid PMV70P691-017  $C_{22}H_{24}O_5$  (368.43). Yellow oil,  $[\alpha]_D = -22.0^\circ$  ( $c = 0.1$ , MeOH). Pharm: Cytotoxic (*in vitro*, Hepa 1c1c7 mouse hepatoma cells,  $IC_{50} = 19.3 \mu\text{g/mL}$ ,  $CD = 4.4 \mu\text{g/mL}$ ,  $CI = 4.4$ ; control Sulforaphane,  $IC_{50} = 2.1 \mu\text{g/mL}$ ,  $CD = 0.087 \mu\text{g/mL}$ ,  $CI = 24.1$ )<sup>[4721]</sup>; cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells)<sup>[5038]</sup>. Source: SHUI LIU DOU *Pongamia pinnata* (stem cortex: yield = 0.00036%). Ref: 4721, 5038.

**6247 (2S)-5,7-Dimethoxy-8-(2S-hydroxy-3-methyl-3-butenyl)-3',4'-methylenedioxyflavanone**

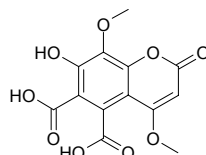
$C_{23}H_{24}O_7$  (412.44). Yellow oil,  $[\alpha]_D = -36.0^\circ$  ( $c = 0.1$ , MeOH). Source: SHUI LIU DOU *Pongamia pinnata* (stem cortex: yield = 0.00018%). Ref: 4721.

**6248 4',5-Dimethoxy-3-hydroxy-6,7-methylenedioxyisoflavone**

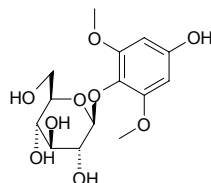
$C_{18}H_{14}O_7$  (342.31). Source: JUAN QIAO YUAN WEI *Iris potaninii* (underground part). Ref: 4235.

**6249 4,8-Dimethoxy-7-hydroxy-2-oxo-2H-1-benzopyran-5,6-dicarboxylic acid**

$C_{13}H_{10}O_9$  (310.22). Source: XIAO DI YU *Sanguisorba minor*. Ref: 3385.

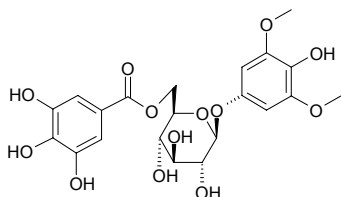
**6250 2,6-Dimethoxy-4-hydroxyphenol-1-O-beta-D-glucopyranoside**

$C_{14}H_{20}O_9$  (332.31). White powder. Source: XIAO YE SHI NAN *Photinia parvifolia* (stem). Ref: 4553.

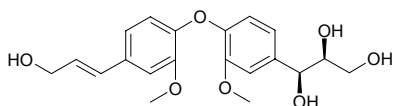


**6251 3,5-Dimethoxy-4-hydroxyphenol 1-O-β-D-(6'-O-galloyl)glucopyranoside**

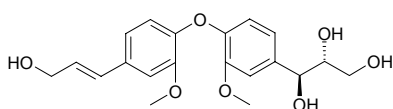
$C_{21}H_{24}O_{13}$  (484.42). Source: YANG MEI SHU PI *Myrica rubra* (bark; yield = 0.012%). Ref: 4163.

**6252 *erythro*-2,2'-Dimethoxy-4-(3-hydroxy-1-propenyl)-4'-(1,2,3-trihydroxypropyl) diphenyl ether**

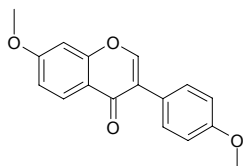
$C_{20}H_{24}O_7$  (376.41). Source: *Eurycoma* sp. Ref: 4556.

**6253 *threo*-2,2'-Dimethoxy-4-(3-hydroxy-1-propenyl)-4'-(1,2,3-trihydroxypropyl) diphenyl ether**

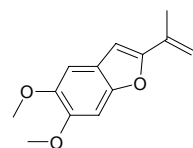
$C_{20}H_{24}O_7$  (376.41). Source: *Eurycoma* sp. Ref: 4556.

**6254 7,4'-Dimethoxyisoflavone**

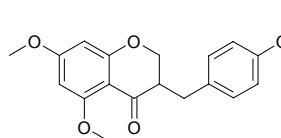
Dimethoxydaidzein [1157-39-7]  $C_{17}H_{14}O_4$  (282.30). Acicular crystals (ethanol), mp 154–156°C. Pharm: Cytotoxic (Raji cells); cAMP phosphodiesterase inhibitor (rat heart,  $IC_{50} = 2.3\mu\text{mol/L}$ ). Source: CI GUO GAN CAO *Glycyrrhiza pallidiflora*. Ref: 900.

**6255 5,6-Dimethoxy-2-isopropenylbenzofuran**

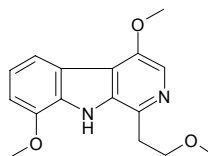
$C_{13}H_{14}O_3$  (218.25). Source: ZHAI TOU TUO WU *Ligularia stenocephala* (root). Ref: 4536.

**6256 5,7-Dimethoxy-3-(4-methoxybenzyl)chroman-4-one**

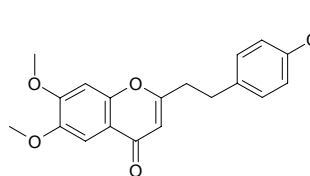
3-(4-Methoxybenzyl)-5,7-dimethoxychroman-4-one  $C_{19}H_{20}O_5$  (328.37). Colorless gum,  $[\alpha]_D^{25} = 70.6^\circ$  ( $c = 0.38$ , MeOH); mp 115–117°C,  $[\alpha]_D = -50^\circ$  ( $c = 0.3$  l, MeOH). Source: *Scilla nervosa* (bulb). Ref: 2328, 2381.

**6257 4,8-Dimethoxy-1-(2-methoxyethyl)-β-carboline**

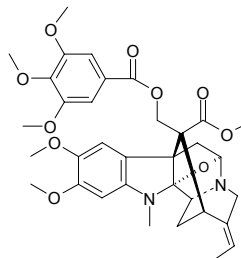
$C_{16}H_{18}N_2O_3$  (286.33). Source: KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12.

**6258 6,7-Dimethoxy-2-[2-(4'-methoxyphenyl)ethyl]chromone**

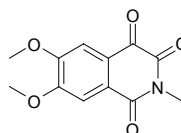
$C_{20}H_{20}O_5$  (340.38). Colorless acicular crystals, mp 88–90°C. Source: BAI MU XIANG *Aquilaria sinensis*. Ref: 13, 660.

**6259 10,11-Dimethoxy-1-methyldeacetylpicraline-3',4',5'-trimethoxybenzoate**

$C_{34}H_{40}N_2O_{10}$  (636.71). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf; yield = 0.0017%). Ref: 3020.

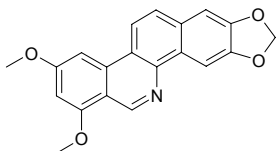
**6260 6,7-Dimethoxy-N-methyl-3,4-dioxo-1(2H)-isoquinolinone**

$C_{12}H_{11}NO_5$  (249.23). Yellow powder, mp 185–189°C. Source: BIAN FU GE GEN *Menispermum dauricum*. Ref: 3792.

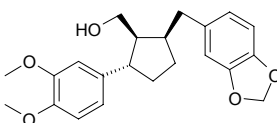


**6261 7,9-Dimethoxy-2,3-methylenedioxybenzophenanthridine**

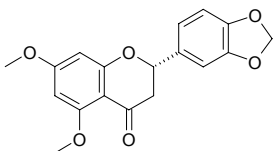
$C_{20}H_{15}NO_4$  (333.35). **Pharm:** Platelet aggregation inhibitor; DNA isomerase inhibitor; antibacterial; cytotoxic. **Source:** *Zanthoxylum* sp. **Ref:** 2176.

**6262 3,4-Dimethoxy-3',4'-methylenedioxy-7,9'-epoxyignan-9-ol**

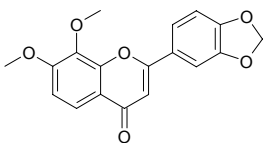
$C_{22}H_{26}O_5$  (370.45). **Pharm:** Antineoplastic; cathartic; sthenic; pesticide; ichthyotoxin; muscle relaxant. **Source:** *Zanthoxylum* sp. **Ref:** 2176.

**6263 (2S)-5,7-Dimethoxy-3',4'-methylenedioxyflavanone**

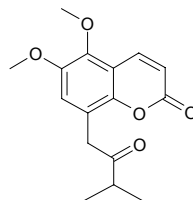
$C_{18}H_{16}O_6$  (328.32). Colorless needles ( $CHCl_3$ ), mp 192~194°C,  $[\alpha]_D^{25} = -18.5^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antibacterial (gram-positive bacteria: *Staphylococcus aureus*, 30µg/mL DIZ = 7mm, *Bacillus subtilis*, 30µg/mL DIZ = 7mm, *Bacillus sphaericus*, 30µg/mL DIZ = 6mm, control Penicillin G, 30µg/mL DIZ = 12, 15, 14mm, respectively; gram-negative bacteria: *Pseudomonas aeruginosa*, 30µg/mL DIZ = 7mm, *Klebsiella aerogenes*, 30µg/mL DIZ = 7mm, *Chromobacterium violaceum*, 30µg/mL DIZ = 8mm, control Penicillin G, 30µg/mL DIZ = 24, 23, 24mm, respectively)<sup>[3407]</sup>; antifungal (*Aspergillus niger*, 100µg/mL DIZ = 8mm, *Candida albicans*, 100µg/mL DIZ = 7mm, *Rhizopus oryzae*, 150µg/mL inactive, control Clotrimazole, 100µg/mL DIZ = 22, 25, 24mm, respectively)<sup>[3407]</sup>. **Source:** CAI BAN YANG TI JIA *Bauhinia variegata* (root cortex), JI MEI YUN SHI *Caesalpinia pulcherrima*. **Ref:** 3407, 3468.

**6264 7,8-Dimethoxy-3',4'-methylenedioxyflavone**

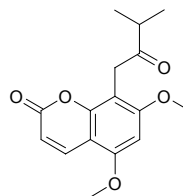
$C_{18}H_{14}O_6$  (326.31). Yellow amorphous powder, mp 252~254°C (MeOH). **Source:** XIANG HE HUAN *Albizia odoratissima* (root cortex). **Ref:** 4229.

**6265 5,6-Dimethoxy-8-(3'-methyl-2'-oxobutyl) coumarin**

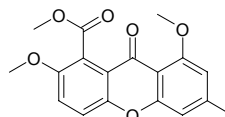
$C_{16}H_{18}O_5$  (290.32). **Source:** JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. **Ref:** 11.

**6266 5,7-Dimethoxy-8-(3'-methyl-2'-oxobutyl)coumarin**

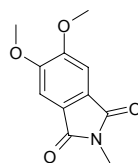
$C_{16}H_{18}O_5$  (290.32). **Pharm:** Platelet aggregation inhibitor (washed rabbit platelets, induced by thrombin, AA, collagen and PAF, 100µg/mL: thrombin = 0.1U/mL, AggRt = (77.7±1.1)%, control, AggRt = (80.0±1.1)%; AA = 100µmol/L, AggRt = (0±0)%,  $p < 0.001$ , control, AggRt = (77.0±1.5)%; collagen = 10µg/mL, AggRt = (0±0)%,  $p < 0.001$ , control, AggRt = (78.3±1.3)%; PAF = 1ng/mL, AggRt = (60.7±7.8)%,  $p < 0.01$ , control, AggRt = (82.5±1.5)%<sup>[5417]</sup>). **Source:** JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*], QI GUO JIU LI XIANG *Murraya omphalocarpa* (leaf). **Ref:** 11, 5417.

**6267 2,8-Dimethoxy-6-methyl-9-oxo-9H-xanthene-1-carboxylic acid methyl ester**

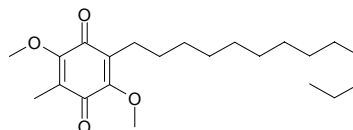
$C_{18}H_{16}O_6$  (328.32). Stable yellow needles ( $CHCl_3$ ), mp 219~221°C. **Pharm:** Cytotoxic inactive (brine shrimp *Artemia salina* lethality assay, 20µg/mL or 200µg/mL). **Source:** *Xylaria* sp. **Ref:** 3845.

**6268 5,6-Dimethoxy-N-methylphthalimide**

$C_{11}H_{11}NO_4$  (221.21). **Source:** BIAN FU GE GEN *Menispermum dauricum*, SHUI LIAN YE TONG *Hernandia nymphaeifolia* (trunk bark). **Ref:** 1521, 3792.

**6269 2,5-Dimethoxy-6-methyl-3-tridecyl-1,4-benzoquinone**

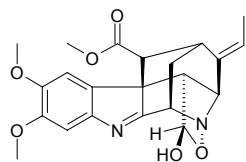
$C_{22}H_{36}O_4$  (364.53). Pale yellow solid, mp 54~55°C. **Source:** PI ZHEN DU JING SHAN *Maesa lanceolata*. **Ref:** 1860.



**6270 10,11-Dimethoxynareline**

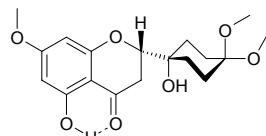
$C_{22}H_{24}N_2O_6$  (412.45). Light yellowish oil,  $[\alpha]_D = -56^\circ$  ( $c = 1.57$ ,  $CHCl_3$ ).

**Source:** DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf; yield = 0.0112%). **Ref:** 3020.

**6271 (2S)-4',4'-Dimethoxy-ongokein**

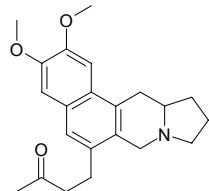
(2S)-5-Hydroxy-2-(1'-hydroxy-4',4'-dimethoxycyclohexyl)-7-methoxychroman-4-one  $C_{18}H_{24}O_7$  (352.39). White amorphous powder, mp 52–55°C,  $[\alpha]_D = +51^\circ$  ( $c = 0.36$ ). **Source:** EN GE MU *Ongokea gore* (stem cortex and root).

**Ref:** 5308.

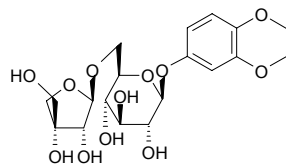
**6272 2,3-Dimethoxy-6-(3-oxo-butyl)-7,9,10,11,11a,12-hexahydrobenzo[f]pyrrolo[1,2-b]isoquinoline**

$C_{22}H_{27}NO_3$  (353.47). Colorless needles, mp 164–166°C,  $[\alpha]_D^{25} = -71.0^\circ$  ( $c = 0.0011$ ,  $CHCl_3$ ). **Pharm:** Antiviral (tobacco mosaic virus (TMV), 500µg/mL, InRt = 15%). **Source:** NIU XIN PIAO ZI *Cynanchum komarovii* (aerial parts).

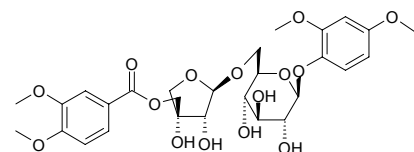
**Ref:** 5241.

**6273 3,4-Dimethoxyphenol β-D-apiofuranosyl(1→6)-β-D-glucopyranoside**

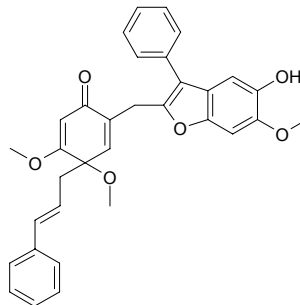
$C_{19}H_{28}O_{12}$  (448.43). White powder,  $[\alpha]_D^{25} = -58.9^\circ$  ( $c = 0.68$ , MeOH). **Source:** SHAN FAN GEN *Symplocos caudata*. **Ref:** 2535.

**6274 2,4-Dimethoxyphenol 1-O-β-D-[5-O-(3,4-dimethoxybenzoyl)]apiofuranosyl-(1→6)-β-D-glucopyranoside**

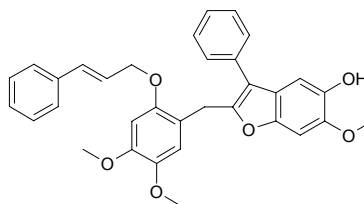
$C_{28}H_{36}O_{15}$  (612.59). Amorphous powder,  $[\alpha]_D^{23} = -74^\circ$  ( $c = 0.43$ , MeOH). **Source:** BAN ZHEN ZHONG HUA SHU *Tabebuia impetiginosa* (bark). **Ref:** 3817.

**6275 2-[4,5-Dimethoxy-5-(3-phenyl-trans-allyl)cyclohexa-3,6-dien-2-on-1-ylmethyl]-5-hydroxy-6-methoxy-3-phenylbenzofuran**

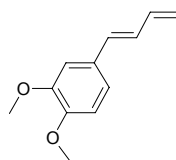
$C_{33}H_{30}O_6$  (522.6). Yellow amorphous solid, mp 78–83°C,  $[\alpha]_D^{25} = +23.6^\circ$  ( $c = 0.44$ ,  $CHCl_3$ ). **Pharm:** Testosterone 5α-reductase inhibitor (25µg/mL, InRt = 0.6%, 50µg/mL, InRt = 3.8%, 100µg/mL, InRt = 17%; control Glycyrrhetic acid, 25µg/mL, InRt = 31.7%, 50µg/mL, InRt = 64.7%, 100µg/mL, InRt = 87.1%). **Source:** JIAO ZHI HUANG TAN *Dalbergia cochinchinensis* (stem; yield = 0.0017%dw). **Ref:** 4716.

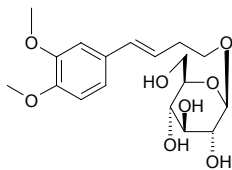
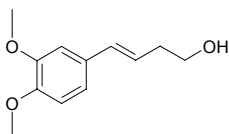
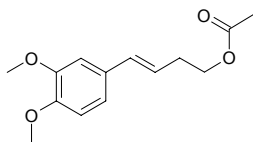
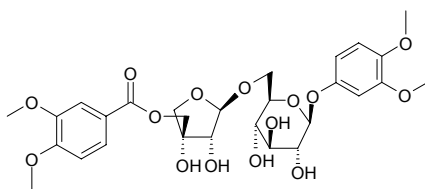
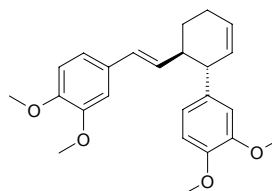
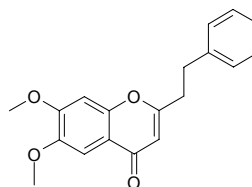
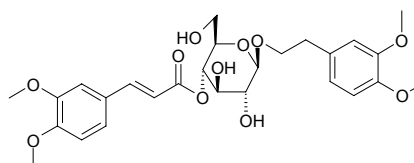
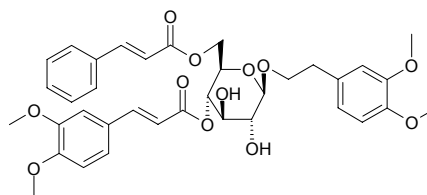
**6276 2-[4,5-Dimethoxy-2-(3-phenyl-trans-allyloxy)benzyl]-5-hydroxy-6-methoxy-3-phenylbenzofuran**

$C_{33}H_{30}O_6$  (522.6). Amorphous solid, mp 63–68°C. **Pharm:** Testosterone 5α-reductase inhibitor (25µg/mL, InRt = 11.5%, 50µg/mL, InRt = 15.9%, 100µg/mL, InRt = 18.1%; control Glycyrrhetic acid, 25µg/mL, InRt = 31.7%, 50µg/mL, InRt = 64.7%, 100µg/mL, InRt = 87.1%). **Source:** JIAO ZHI HUANG TAN *Dalbergia cochinchinensis* (stem; yield = 0.0012%dw). **Ref:** 4716.

**6277 4-(3,4-Dimethoxyphenyl)-but-1,3-diene**

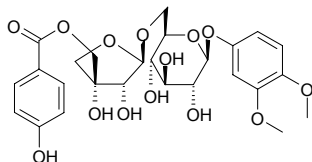
$C_{12}H_{14}O_2$  (190.24). **Pharm:** Cytotoxic (A549,  $IC_{50} > 50\mu\text{mol/L}$ , control Ellipticine,  $IC_{50} = 0.8\mu\text{mol/L}$ ; Col2,  $IC_{50} > 50\mu\text{mol/L}$ , Ellipticine,  $IC_{50} = 1.6\mu\text{mol/L}$ ; SNU638,  $IC_{50} = 44.7\mu\text{mol/L}$ , Ellipticine,  $IC_{50} = 1.6\mu\text{mol/L}$ ; HT1080,  $IC_{50} = 7.9\mu\text{mol/L}$ , Ellipticine,  $IC_{50} = 1.2\mu\text{mol/L}$ )<sup>[4081]</sup>; COX-2 inhibitor (RAW264.7 cells, LPS-induced PGE<sub>2</sub> production,  $IC_{50} = 20.68\mu\text{mol/L}$ , control Celecoxib,  $IC_{50} = 0.52\text{nmol/L}$ )<sup>[4532]</sup>. **Source:** YE JIANG *Zingiber cassumunar* (rhizome). **Ref:** 4081, 4532.



**6278 (E)-4-(3,4-Dimethoxyphenyl)but-3-en-1-O-β-D-glucopyranoside**C<sub>18</sub>H<sub>26</sub>O<sub>8</sub> (370.40). Pale yellow gum,  $[\alpha]_D^{25} = -21.4^\circ$  ( $c = 0.23$ , MeOH).**Pharm:** COX-2 inhibitor inactive (RAW264.7 cells, LPS-induced PGE<sub>2</sub> production, IC<sub>50</sub> > 50 μmol/L, control Celecoxib, IC<sub>50</sub> = 0.52 nmol/L). **Source:** YE JIANG *Zingiber cassumunar* (rhizome). **Ref:** 4532.**6279 (E)-4-(3,4-Dimethoxyphenyl)but-3-en-1-ol**C<sub>12</sub>H<sub>16</sub>O<sub>3</sub> (208.26). **Pharm:** COX-2 inhibitor inactive (RAW264.7 cells, LPS-induced PGE<sub>2</sub> production, IC<sub>50</sub> > 50 μmol/L, control Celecoxib, IC<sub>50</sub> = 0.52 nmol/L). **Source:** YE JIANG *Zingiber cassumunar* (rhizome). **Ref:** 4532.**6280 (E)-4-(3,4-Dimethoxyphenyl)but-3-en-1-ol acetate**C<sub>14</sub>H<sub>18</sub>O<sub>4</sub> (250.30). **Pharm:** COX-2 inhibitor inactive (RAW264.7 cells, LPS-induced PGE<sub>2</sub> production, IC<sub>50</sub> > 50 μmol/L, control Celecoxib, IC<sub>50</sub> = 0.52 nmol/L). **Source:** YE JIANG *Zingiber cassumunar* (rhizome). **Ref:** 4532.**6281 3,4-Dimethoxyphenyl 1-O-β-D-[5-O-(3,4-dimethoxybenzoyl)]-apiofuranosyl-(1→6)-β-D-glucopyranoside**C<sub>28</sub>H<sub>36</sub>O<sub>15</sub> (612.59). Amorphous powder,  $[\alpha]_D^{22} = -72.0^\circ$  ( $c = 1.89$ , MeOH). **Pharm:** NO production inhibitor (LPS-activated macrophage-like J774.1 cells, IC<sub>50</sub> = 75.9 μg/mL, control L-NMMA, IC<sub>50</sub> = 27.4 μg/mL)<sup>[4473]</sup>. **Source:** BAN ZHEN ZHONG HUA SHU *Tabebuia impetiginosa* (bark), HE SE ZHONG HUA SHU *Tabebuia avellanedae* (inner bark). **Ref:** 3817, 4473.**6282 (±)-trans-3-(3,4-Dimethoxyphenyl)-4-[(E)-3,4-dimethoxystyryl]cyclohex-1-ene**C<sub>24</sub>H<sub>28</sub>O<sub>4</sub> (380.49). **Pharm:** Cytotoxic (A549, IC<sub>50</sub> = 12.6 μmol/L, control Ellipticine, IC<sub>50</sub> = 0.8 μmol/L; Col2, IC<sub>50</sub> = 15.5 μmol/L, Ellipticine, IC<sub>50</sub> = 1.6 μmol/L; SNU638, IC<sub>50</sub> = 8.7 μmol/L, Ellipticine, IC<sub>50</sub> = 1.6 μmol/L; HT1080, IC<sub>50</sub> = 16.1 μmol/L, Ellipticine, IC<sub>50</sub> = 1.2 μmol/L)<sup>[4081]</sup>; COX-2 inhibitor (RAW264.7 cells, LPS-induced PGE<sub>2</sub> production, IC<sub>50</sub> = 2.71 μmol/L, control Celecoxib, IC<sub>50</sub> = 0.52 nmol/L)<sup>[4532]</sup>. **Source:** YE JIANG *Zingiber cassumunar* (rhizome). **Ref:** 4081, 4532.**6283 6,7-Dimethoxy-2-(2-phenylethyl) chromone**C<sub>19</sub>H<sub>18</sub>O<sub>4</sub> (310.35). Colorless acicular crystals, mp 118–120°C. **Source:** BAI MU XIANG *Aquilaria sinensis*. **Ref:** 13, 660.**6284 3,4,1-O-3,4-Dimethoxy-phenylethyl-6-O-cinnamoyl-beta-D-glucopyranose**C<sub>27</sub>H<sub>34</sub>O<sub>11</sub> (534.57). **Pharm:** Cytotoxic (EAC, T/C = 240%; P<sub>388</sub>, ED<sub>50</sub> = 16.1 μg/mL). **Source:** FAN SHI LIU ZI *Psidium guajava*. **Ref:** 3826.**6285 1-O-3,4-Dimethoxy-phenylethyl-4-O-3,4-dimethoxy cinnamoyl-6-O-cinnamoyl-beta-D-glucopyranose**C<sub>36</sub>H<sub>40</sub>O<sub>12</sub> (664.71). Amorphous off-white powder. **Pharm:** Cytotoxic (EAC, T/C = 220%; P<sub>388</sub>, ED<sub>50</sub> = 17.3 μg/mL). **Source:** FAN SHI LIU ZI *Psidium guajava*. **Ref:** 3826.

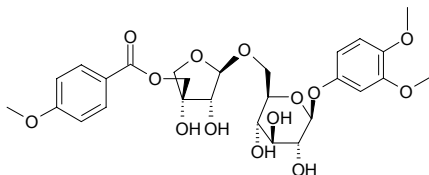
**6286 3,4-Dimethoxyphenyl 1-O-β-D-[5-O-(4-hydroxybenzoyl)]-apiofuranosyl-(1→6)-β-D-glucopyranoside**

C<sub>26</sub>H<sub>32</sub>O<sub>14</sub> (568.54). Amorphous powder, [α]<sub>D</sub><sup>22</sup> = -75° (c = 0.66, MeOH). **Pharm:** NO production inhibitor (LPS-activated macrophage-like J774.1 cells, IC<sub>50</sub> = 44.1 μg/mL, control L-NMMA, IC<sub>50</sub> = 27.4 μg/mL)<sup>[4473]</sup>. **Source:** BAN ZHEN ZHONG HUA SHU *Tabebuia impetiginosa* (bark), HE SE ZHONG HUA SHU *Tabebuia avellaneda* (inner bark). **Ref:** 3817, 4473.



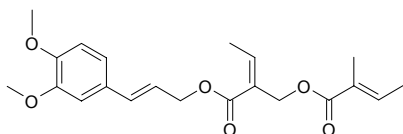
**6287 3,4-Dimethoxyphenyl 1-O-β-D-[5-O-(4-methoxybenzoyl)]-apiofuranosyl-(1→6)-β-D-glucopyranoside**

C<sub>27</sub>H<sub>34</sub>O<sub>14</sub> (582.56). Amorphous powder, [α]<sub>D</sub><sup>22</sup> = -76.0° (c = 1.79, MeOH). **Pharm:** NO production inhibitor (LPS-activated macrophage-like J774.1 cells, IC<sub>50</sub> = 38.2 μg/mL, control L-NMMA, IC<sub>50</sub> = 27.4 μg/mL)<sup>[4473]</sup>. **Source:** BAN ZHEN ZHONG HUA SHU *Tabebuia impetiginosa* (bark), HE SE ZHONG HUA SHU *Tabebuia avellaneda* (inner bark). **Ref:** 3817, 4473.



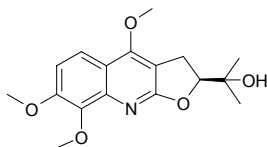
**6288 (E)-3-(3,4-Dimethoxyphenyl)-2-propen-1-yl (Z)-2-[(Z)-2-methyl-2-butenoyloxymethyl] butanoate**

C<sub>21</sub>H<sub>26</sub>O<sub>6</sub> (374.44). **Pharm:** Anti-inflammatory (NF-κB inhibitor, hmn monocytes, prevents LPS-induced cytokines (IL-1, IL-6, TNF, IL-8) release and PGE<sub>2</sub> synthesis: unstimulated control: PGE<sub>2</sub> = 0.54 pg/mL, IL-6 = 0.97 pg/mL, IL-1β = 0 pg/mL, TNF-α = 0.02 pg/mL, IL-8 = 3.45 pg/mL; LPS (10 ng/mL): PGE<sub>2</sub> = 19.24 pg/mL, IL-6 = 71.42 pg/mL, IL-1β = 3.61 pg/mL, TNF-α = 2.66 pg/mL, IL-8 = 235.18 pg/mL; LPS (10 ng/mL + compound 1 μg/mL): PGE<sub>2</sub> = 6.58 pg/mL, IL-6 = 52.23 pg/mL, IL-1β = 1.25 pg/mL, TNF-α = 1.18 pg/mL, IL-8 = 158.3 pg/mL). **Source:** GUAN MU CHAI HU *Bupleurum fruticosum* (aerial parts). **Ref:** 5033.



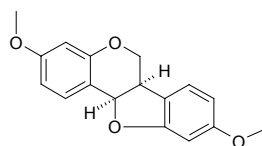
**6289 (S)-(-)-7,8-Dimethoxyplatydesmine**

C<sub>17</sub>H<sub>21</sub>NO<sub>5</sub> (319.36). **Pharm:** Cytotoxic (P<sub>388</sub> cell line, ED<sub>50</sub> = 7.5 μg/mL, control Mithramycin, ED<sub>50</sub> = 0.06 μg/mL; HT29, ED<sub>50</sub> = 28.3 μg/mL, Mithramycin, ED<sub>50</sub> = 0.07 μg/mL; A549, ED<sub>50</sub> = 1.9 μg/mL, Mithramycin, ED<sub>50</sub> = 0.08 μg/mL). **Source:** SI ROU TUO GUO YE MI ZHU YU *Melicope semecarpifolia*. **Ref:** 5405.



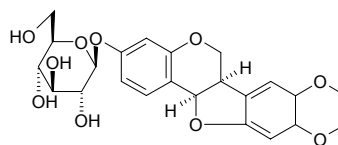
**6290 3,9-Dimethoxypterocarpan**

Homopterocarpin; Baphinitone [606-91-7] C<sub>17</sub>H<sub>16</sub>O<sub>4</sub> (284.31). Needles (petroleum ether or EtOH), mp 88–89°C, mp 83–85°C, [α]<sub>D</sub><sup>22</sup> = -225° (CHCl<sub>3</sub>). **Pharm:** Antineoplastic; antifungal; hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by D-galactosamine (GalN), 100 μmol/L, InRt = (19.9 ± 2.0)%, weak, control Silybin, 100 μmol/L, InRt = (77.0 ± 5.5)%)<sup>[4095]</sup>. **Source:** ZI TAN *Pterocarpus indicus*, CHAO XIAN HUAI *Maackia amurensis*, GUANG BU DING GONG TENG *Erycibe expansa*, MA DAO SI WO CI DOU *Swartzia madagascariensis*, ZA JIAO CHE ZHOU CAO *Trifolium hybridum*, *Pericopsis angolensis*. **Ref:** 5, 658, 1521, 4095



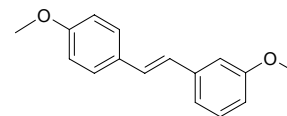
**6291 9,10-Dimethoxy-pterocarpane-3-O-β-D-glucoside**

C<sub>23</sub>H<sub>28</sub>O<sub>10</sub> (464.47). **Source:** HUANG QI *Astragalus membranaceus*, MENG GU HUANG QI *Astragalus mongholicus*. **Ref:** 2, 660.



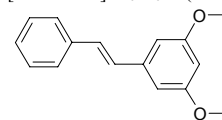
**6292 (E)-3,4'-Dimethoxystilbene**

C<sub>16</sub>H<sub>16</sub>O<sub>2</sub> (240.30). **Source:** GE ZHI HUA DI QIAN *Corsinia coriandrina*. **Ref:** 3888.



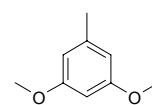
**6293 3,5-Dimethoxystilbene**

[78916-49-1] C<sub>16</sub>H<sub>16</sub>O<sub>2</sub> (240.30). **Source:** HAI SONG ZI *Pinus koraiensis*. **Ref:** 6.



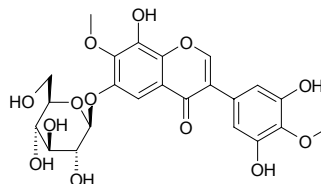
**6294 3,5-Dimethoxytoluene**

[4179-19-5] C<sub>9</sub>H<sub>12</sub>O<sub>2</sub> (152.19). **Source:** XI XIN *Asarum sieboldii*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum*. **Ref:** 2, 660.



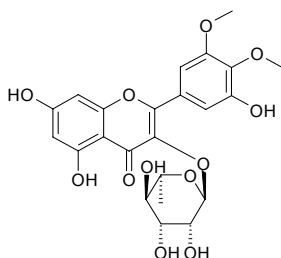
**6295 7,4'-Dimethoxy-8,3',5'-trihydroxy-6-O-β-D-glucopyranosyliso-flavone**

C<sub>23</sub>H<sub>24</sub>O<sub>13</sub> (508.44). Amorphous solid. **Source:** JUAN QIAO YUAN WEI *Iris potaninii* (underground part). **Ref:** 4235.

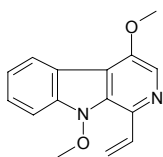


**6296 3',4'-Dimethoxy-5,7,5'-trihydroxyl-flavone 3-O- $\alpha$ -L-rhamnopyranoside**

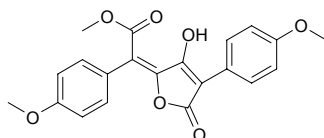
3',4'-Dimethoxy-5,7,5'-trihydroxyl-flavone 3-O- $\alpha$ -L-rhamnopyranoside  
 $C_{23}H_{24}O_{12}$  (492.44). Source: SHAN HUANG PI *Clausena excavata*. Ref: 2135.

**6297 4,9-Dimethoxy-1-vinyl- $\beta$ -carboline**

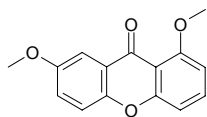
[88142-62-5]  $C_{15}H_{14}N_2O_2$  (254.29). Source: KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12.

**6298 4,4'-Dimethoxyvulpinic acid**

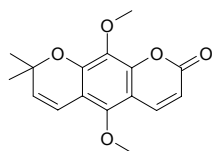
$C_{21}H_{18}O_7$  (382.37). Pharm: Antitubercular (*Mycobacterium tuberculosis* H37Ra, MIC = 25  $\mu$ g/mL); anti-HSV-1 inactive; cytotoxic inactive (hmn lung cancer cells NCI-H187). Source: HUANG YING PI MA BO *Scleroderma citrinum*. Ref: 5406.

**6299 1,7-Dimethoxyxanthone**

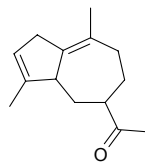
$C_{15}H_{12}O_4$  (256.26). Source: YUAN ZHI *Polygala tenuifolia* (cortex). Ref: 4507.

**6300 5,8-Dimethoxyxanthyletin**

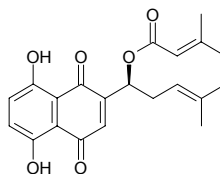
Racemosin [68421-13-6]  $C_{16}H_{16}O_5$  (288.30). mp 179~180°C. Source: SHI JIAO CAO *Boenninghausenia sessilicarpa*, YAN JIAO CAO *Boenninghausenia albiflora* (root). Ref: 660, 1521, 2495.

**6301 2,8-Dimethyl-5-acetyl-bicyclo[5,3,0] decadiene-1,8**

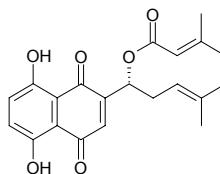
$C_{14}H_{20}O$  (204.31). Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2.

**6302  $\beta,\beta$ -Dimethylacrylalkannin**

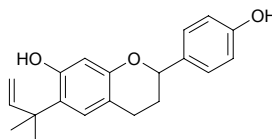
$C_{21}H_{22}O_6$  (370.41). mp 116~117°C. Pharm: Antibacterial (*Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycobacterium tuberculosis* H37Rv); inhibits ejection of sperm (male toad, caused by injecting chorionic gonadotrophin); used in treatment of allergic purpura. Source: DIAN ZI CAO *Onosma paniculatum*, OU ZI CAO *Alkanna tinctoria* (root: content scope = 0.46%~0.50%<sup>[5501]</sup>), XIN ZANG JIA ZI CAO *Arnebia euchroma*, ZI CAO *Lithospermum erythrorhizon*. Ref: 2, 5, 658, 5501.

**6303  $\beta,\beta$ -Dimethylacrylshikonin**

$C_{21}H_{22}O_6$  (370.41). Sorrel lamellar crystals, mp 116~117°C. Pharm: Antibacterial (*Staphylococcus aureus* 209P, *Staphylococcus aureus* TPR27, *S. epidermidis* TPR25, *Sarcina lutea* and *Bacillus subtilis*, MIC = 160  $\mu$ g/mL); antineoplastic ( $W_{256}$ , *in vitro* and *in vivo*); contracts blood vessels (inhibits ACh-induced relaxation on intact thoracic aorta, IC<sub>50</sub> = (1.461±0.052)  $\mu$ mol/L, 1,4-Naphthoquinone IC<sub>50</sub> = (1.504±0.171)  $\mu$ mol/L)<sup>[4916]</sup>. Source: DIAN ZI CAO *Onosma paniculatum* (root: content = 0.095%<sup>[5508]</sup>), JIA ZI CAO *Arnebia guttata* (root: content = 0.121%<sup>[5508]</sup>), XIN ZANG JIA ZI CAO *Arnebia euchroma* (root: mean content of 3 origins = 0.879%<sup>[5508]</sup>), ZI CAO *Lithospermum erythrorhizon* (root: content = 0.137%<sup>[5508]</sup>). Ref: 661, 4916, 5501, 5508.

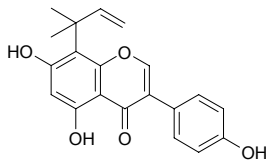
**6304 6(1,1-Dimethylallyl)-7,4'-dihydroxyflavan**

$C_{20}H_{22}O_3$  (310.40). Light yellow gum,  $[\alpha]_D = +3.5^\circ$  ( $c = 0.14$ , MeOH). Source: TUO YUAN DUO TAN CAO *Dorstenia elliptica* (twig). Ref: 3754.

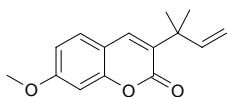


**6305 8-(1,1-Dimethylallyl)genistein**

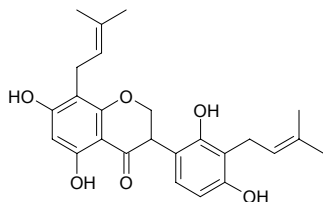
$C_{20}H_{18}O_5$  (338.36). Yellow prisms ( $CHCl_3$ ), mp 94–96°C. Source: FEI LV BIN QIAN JIN BA *Moghania philippinensis* (root). Ref: 3500.

**6306 3-(1,1-Dimethyl allyl) herniarin**

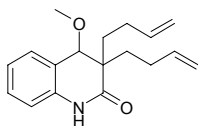
[20958-63-8]  $C_{15}H_{16}O_3$  (244.29). mp 126–128°C. Source: CHOU CAO *Ruta graveolens*. Ref: 6.

**6307 3'-(γ,γ-Dimethylallyl)-kievitone**

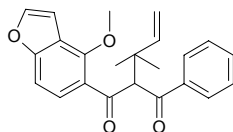
3'-(3,3-Dimethylallyl)-kievitone  $C_{25}H_{28}O_6$  (424.50). Source: CU MAO GAN CAO *Glycyrrhiza aspera*, GAN CAO *Glycyrrhiza Uralensis*, GUANG GUO GAN CAO *Glycyrrhiza glabra*. Ref: 2431.

**6308 3,3-Dimethylallyl-4-methoxy-2-quinolone**

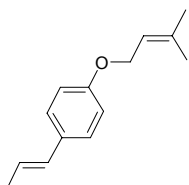
$C_{18}H_{23}NO_2$  (285.39). Source: WU ZHU YU *Evodia rutaecarpa*. Ref: 877.

**6309 8-(α,β-Dimethylallyl)-pongamol**

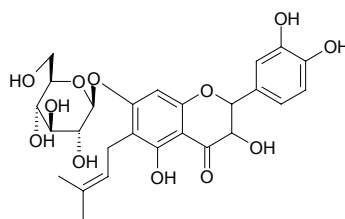
$C_{23}H_{22}O_4$  (362.43). Pharm: Cytotoxic (BST,  $LC_{50} = 2.69\mu g/mL$ ). Source: *Lonchocarpus latifolius* (root). Ref: 5108.

**6310 3,3-Dimethyl allyl-p-propenyl phenyl ether**

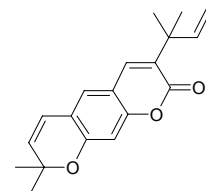
$C_{14}H_{18}O$  (202.30). Source: BA JIAO HUI XIANG *Illicium verum*. Ref: 6.

**6311 6-γ,γ-Dimethylallyltaxifolin 7-O-β-D-glucoside**

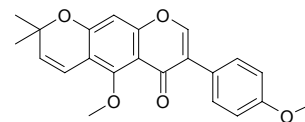
$C_{26}H_{30}O_{12}$  (534.52). mp 170–172°C,  $[\alpha]_D^{20} = -6.6^\circ$  ( $c = 0.5$ , MeOH). Source: JIN LIAN MU *Ochna integerrima* (leaf). Ref: 5133.

**6312 3-(1,1-Dimethylallyl)-xanthyletin**

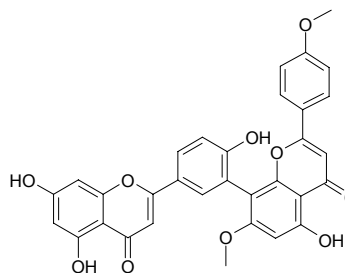
$C_{19}H_{20}O_3$  (296.37). mp 98–99°C. Pharm: Phytogrowth inhibitor (100μg/mL, *Amaranthus hypochondriacus*, InRt = (74.9±1.5)%); *E. crusgalli*, InRt = (83.7±1.9%)<sup>[5253]</sup>. Source: YAN JIAO CAO *Boenninghausenia albiflora*, *Stauranthus perforatus* (root). Ref: 2495, 5253.

**6313 Dimethylalpinumisoflavone**

$C_{22}H_{20}O_5$  (364.40). Source: CI TONG *Erythrina variegata* [Syn. *Erythrina indica*] (stem cortex). Ref: 5220.

**6314 4',7-Dimethylamentoflavone**

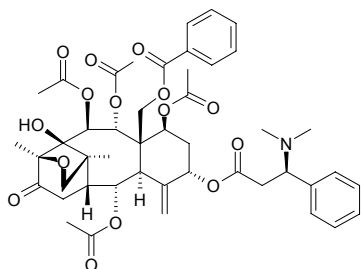
$C_{32}H_{22}O_{10}$  (566.53). Yellowish amorphous powder (MeOH), mp 317–319°C,  $[\alpha]_D^{17.6} = +15.92^\circ$  ( $c = 0.26$ ,  $C_5H_5N$ ). Pharm: Tissue proteinase B inhibitor ( $IC_{50} = 0.55\mu mol/L$ ); cytotoxic (A549,  $IC_{50} = 7.74\mu mol/L$ , Bel7402,  $IC_{50} = 17.16\mu mol/L$ , DU145,  $IC_{50} = 12.42\mu mol/L$ , HT29,  $IC_{50} = 14.54\mu mol/L$ ). Source: MO XI GE LUO YU SHAN *Taxodium mucronatum* (twig and leaf). Ref: 4571.



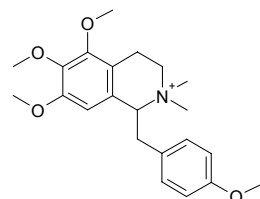


**6315 5 $\alpha$ -O-(3'-Dimethylamino-3'-phenylpropionyl) taxinine M**

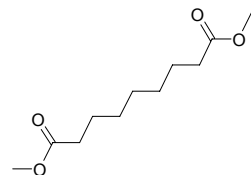
C<sub>46</sub>H<sub>55</sub>NO<sub>15</sub> (861.95). Colorless solid. **Pharm:** Cytotoxic (A549, ED<sub>50</sub> = (10.1 $\pm$ 2.4) $\mu$ mol/L). **Source:** XI MA LA YA HONG DOU SHAN *Taxus wallichiana* (needle leaf). **Ref:** 5225.

**6316 N,N-Dimethylanomurine**

Tetrahydrobenzylisoquinoline alkaloid C<sub>22</sub>H<sub>30</sub>NO<sub>4</sub><sup>+</sup> (372.49). Colorless amorphous powder, [α]<sub>D</sub><sup>22</sup> = -26.3° (c = 0.32, MeOH). **Source:** XIAO HUA MU BAN SHU *Xylopiya parviflora* (bark and root). **Ref:** 3794.

**6317 Dimethyl azelate**

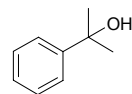
Methyl azelate [1732-10-1] C<sub>11</sub>H<sub>20</sub>O<sub>4</sub> (216.28). **Source:** DANG GUI *Angelica sinensis*. **Ref:** 2.

**6318 1,2-Dimethylbenzene**

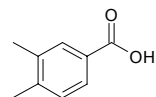
[95-47-6] C<sub>8</sub>H<sub>10</sub> (106.17). **Source:** SHAN ZHA *Crataegus pinnatifida*. **Ref:** 2.

**6319 α,α-Dimethylbenzene methanol**

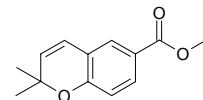
[617-94-7] C<sub>9</sub>H<sub>12</sub>O (136.20). **Source:** SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2.

**6320 3,4-Dimethylbenzoic acid**

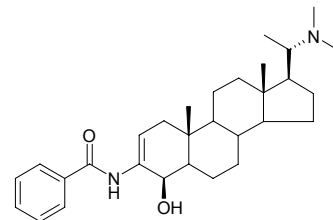
3,4-Xylylic acid [619-04-5] C<sub>9</sub>H<sub>10</sub>O<sub>2</sub> (150.18). mp 166°C. **Source:** MU TIAN LIAO *Actinidia polygama*. **Ref:** 6.

**6321 2,2-Dimethyl-2H-1-benzopyran-6-carboxylic acid methyl ester**

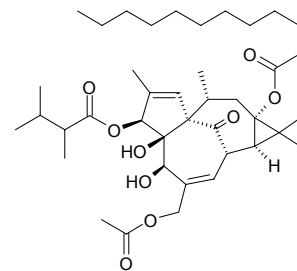
2,2-Dimethyl-6-methoxycarbonyl-2H-benzopyran [34818-57-0] C<sub>13</sub>H<sub>14</sub>O<sub>3</sub> (218.25). **Source:** BAI HUA LONG DAN *Gentiana algida*. **Ref:** 704.

**6322 N<sup>20</sup>,N<sup>20</sup>-Dimethyl-N<sup>3</sup>-benzoyl-3,20-diaminopregn-2-en-4-ol**

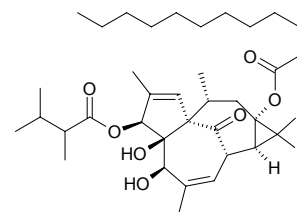
Anticancer Alkaloid PMV70P691-001 C<sub>30</sub>H<sub>44</sub>N<sub>2</sub>O<sub>2</sub> (464.70). **Pharm:** Cytotoxic (estrone sulfatase assay). **Source:** YANG WO BAN DENG GUO *Pachysandra procumbens*. **Ref:** 5038.

**6323 3-O-(2,3-Dimethylbutanoyl)-13-O-dodecanoyl-20-acetylgingenol**

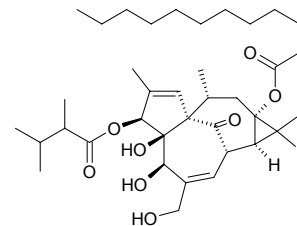
C<sub>40</sub>H<sub>62</sub>O<sub>9</sub> (686.93). Colorless gum, [α]<sub>D</sub><sup>23</sup> = 11.5° (c = 0.69, MeOH). **Source:** GAN SUI *Euphorbia kansui*. **Ref:** 4368.

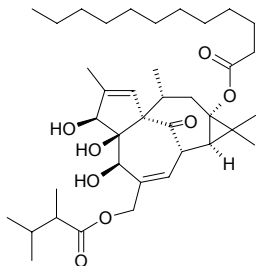
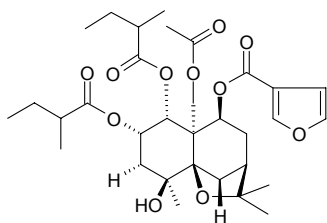
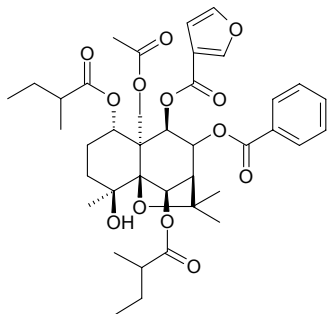
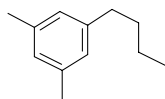
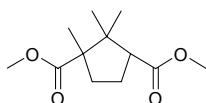
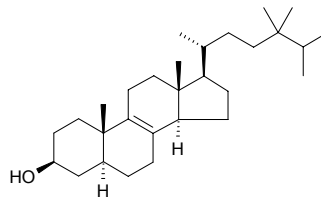
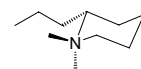
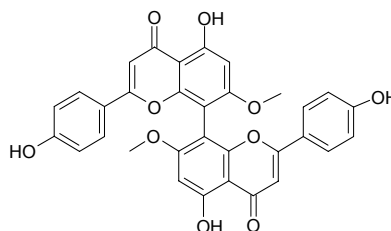
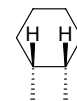
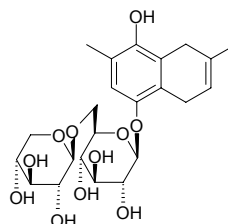
**6324 3-O-(2,3-Dimethylbutanoyl)-13-O-dodecanoyl-20-deoxyingenol**

C<sub>38</sub>H<sub>60</sub>O<sub>7</sub> (628.90). Colorless gum, [α]<sub>D</sub><sup>23</sup> = -4.4° (c = 0.73, MeOH). **Source:** GAN SUI *Euphorbia kansui*. **Ref:** 4368.

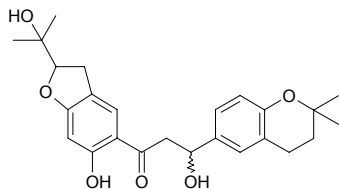
**6325 3-O-(2,3-Dimethylbutanoyl)-13-O-dodecanoylgingenol**

C<sub>38</sub>H<sub>60</sub>O<sub>8</sub> (644.90). **Pharm:** Induces cell cleavage arrest (*Xenopus laevis* embryo cells at the blastular stage, at 10 $\mu$ g/mL compound results in > 60% cell cleavage arrest). **Source:** GAN SUI *Euphorbia kansui*. **Ref:** 4368.

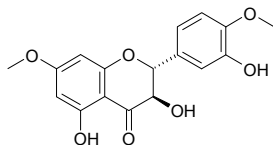


**6326 20-O-(2,3-Dimethylbutanoyl)-13-O-dodecanoylingenol**C<sub>38</sub>H<sub>60</sub>O<sub>8</sub> (644.90). Source: GAN SUI *Euphorbia kansui*. Ref: 4368.**6327 1 $\alpha$ ,2 $\alpha$ -Di-( $\alpha$ -methyl)-butanoyl-4 $\beta$ -hydroxy-9 $\beta$ -( $\beta$ -)-furoyloxy-15-acetoxy- $\beta$ -dihydroagarofuran**C<sub>32</sub>H<sub>46</sub>O<sub>11</sub> (606.72). Colorless gum,  $[\alpha]_D^{20} = +42^\circ$  ( $c = 1.00$ , CHCl<sub>3</sub>). Pharm: Cytotoxic (*in vitro*, Bel7402 liver carcinoma, IC<sub>50</sub> = 38.26 $\mu$ g/mL, control Etoposide, IC<sub>50</sub> = 7.00 $\mu$ g/mL). Source: *Euonymus nanoides* (seed). Ref: 4962.**6328 1S,6R-Di(2-methylbutanoyloxy-4S-hydroxy-8S-benzoyloxy-9R-(3)-furancarboxyloxy-13-acetyloxy- $\beta$ -dihydroagarofuran**C<sub>39</sub>H<sub>50</sub>O<sub>13</sub> (726.83). Yellow oil,  $[\alpha]_D = +39.4^\circ$  ( $c = 6.3$ , CHCl<sub>3</sub>). Pharm: Cytotoxic (hmn Bel7402, IC<sub>50</sub> = 6.9 $\mu$ mol/L, hmn HL-60, IC<sub>50</sub> = 51.4 $\mu$ mol/L, hmn A549, IC<sub>50</sub> = 81.7 $\mu$ mol/L, mouse, P<sub>388</sub>, IC<sub>50</sub> = 51.2 $\mu$ mol/L). Source: *Euonymus nanoides* (seed; yield = 0.0053%dw). Ref: 1129.**6329 3,5-Dimethylbutylbenzene**C<sub>12</sub>H<sub>18</sub> (162.27). Source: SHAN ZHA *Crataegus pinnatifida*. Ref: 2.**6330 Dimethyl camphorite**C<sub>12</sub>H<sub>20</sub>O<sub>4</sub> (228.29). Source: DANG GUI *Angelica sinensis*. Ref: 2.**6331 24,24-Dimethyl-5 $\alpha$ -cholesta-8-en-3 $\beta$ -ol**C<sub>29</sub>H<sub>50</sub>O (414.72). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.**6332 N,N-Dimethylconiine**C<sub>10</sub>H<sub>23</sub>N (157.30). Source: SA BA LU HUI *Aloe sabaea*. Ref: 728.**6333 7,7''-Di-O-methylcupressu-flavone**C<sub>32</sub>H<sub>22</sub>O<sub>10</sub> (566.53). mp > 300°C. Source: CE BAI YE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*]. Ref: 6.**6334 1,4-Dimethyl-*cis*-cyclohexane**[589-90-2] C<sub>8</sub>H<sub>16</sub> (112.22). Source: SHAN ZHA *Crataegus pinnatifida*. Ref: 2.**6335 1,6-Dimethyl-*cis*-cyclohexane**[583-57-3] C<sub>8</sub>H<sub>16</sub> (112.22). Source: SHAN ZHA *Crataegus pinnatifida*. Ref: 2.**6336 2,7-Dimethyl-1,4-dihydronaphthalene-5,8-diol 5-O- $\beta$ -D-xylopyranosyl(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside**C<sub>23</sub>H<sub>32</sub>O<sub>11</sub> (484.50). mp 215~217°C,  $[\alpha]_D^{26} = -33.9^\circ$  ( $c = 0.13$ , MeOH). Source: RI BEN LU TI CAO *Pyrola japonica* (whole herb). Ref: 4294.

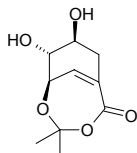
**6337 (+)-3,4-(6'',6''-Dimethyldihydropyrano)-4',5'-[2''''-(1-hydroxy-1-methylethyl)-dihydrofuran]-2',3''''-dihydroxydihydrochalcone**  
 $C_{25}H_{30}O_6$  (426.51). Yellow powder, mp 114~116°C,  $[\alpha]_D^{25} = +414^\circ$  ( $c = 0.013$ , MeOH). Source: *Dorstenia barteri* var. *subtriangularis* (twig). Ref: 3765.



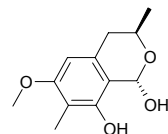
**6338 4',7-Di-O-methyldihydroquercetin**  
 $C_{17}H_{16}O_7$  (332.31). Yellow amorphous powder. Pharm: Cytotoxic (HeLa,  $IC_{50} = 22.4\mu\text{g/mL}$ , control Mitomycin C,  $IC_{50} = 1.7\mu\text{g/mL}$ )<sup>[4092]</sup>. Source: JUAN QIAO YUAN WEI *Iris potaninii* (underground part), TUAN JI AI NA XIANG *Blumea glomerata*. Ref: 4092, 4235.



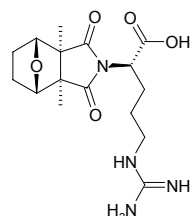
**6339 4,4-Dimethyl-7 $\alpha$ ,8 $\beta$ -dihydroxy-3,5-dioxobicyclo[4.3.1]dec-1(10)-en-2-one**  
 $C_{10}H_{14}O_5$  (214.22). Colorless squama crystals, mp 175~177°C. Source: MEI LI JIN SI TAO *Hypericum bellum*. Ref: 2492.



**6340 3,7-Dimethyl-1,8-dihydroxy-6-methoxy-isochroman**  
 $C_{12}H_{16}O_4$  (224.26).  $[\alpha]_D^{20} = -6.3^\circ$  ( $c = 0.083$ , MeOH). Source: *Penicillium steckii*. Ref: 3960.



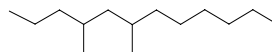
**6341 (2S)-2-[(3aR\*,4S\*,7R\*,7aS\*)-3a,7a-Dimethyl-1,3-dioxo-4,7-epoxy-octahydroisoindol-2-yl]-5-guanidino pentanoic acid**  
 $C_{16}H_{24}N_4O_5$  (352.39). Powder, mp 195.0~197.0°C,  $[\alpha]_D = -21.1^\circ$  ( $c = 2.2$ , MeOH:H<sub>2</sub>O = 1:1). Source: BAN MAO *Mylabris phalerata*; *Mylabris cichorii*. Ref: 4052.



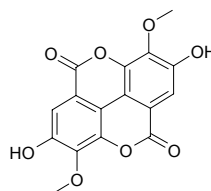
**6342 Dimethyl disulfide**  
 $C_2H_6S_2$  (94.20). mp  $-98^\circ\text{C}$ , bp  $110^\circ\text{C}$ ; 116~118°C. Source: DA SUAN *Allium sativum*, JIU CAI *Allium tuberosum*, YANG CONG *Allium cepa*. Ref: 6.



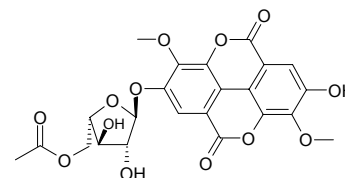
**6343 4,6-Dimethyl dodecane**  
 $C_{14}H_{30}$  (198.40). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 2.



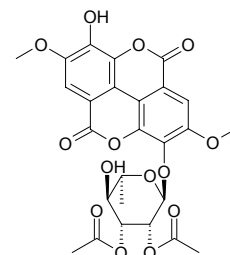
**6344 3,3'-Di-O-methylelagic acid**  
 $C_{16}H_{10}O_8$  (330.25). Pharm: Antioxidant (*in vitro*, effect on conjugated diene formation of LDL or MDA level in rat brain). Source: SHI LIU ZHONG ZI *Punica granatum* (seed; yield = 0.00063%). Ref: 4792.



**6345 3,3'-Di-O-methylelagic acid 4-(5''-acetyl)- $\alpha$ -L-arabinofuranoside**  
 $C_{23}H_{20}O_{13}$  (504.41). Off-white amorphous powder,  $[\alpha]_D^{28} = -180.0^\circ$  ( $c = 0.13$ , M<sub>2</sub>SO). Source: JI SU ZI *Cornus capitata* [Syn. *Dendrobenthamia capitata*] (root). Ref: 5177.

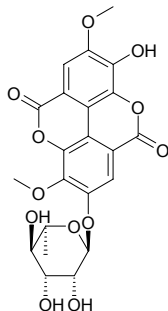


**6346 4,4'-O-Dimethylelagic acid 3-(2'',3''-di-O-acetyl)- $\alpha$ -L-rhamnoside**  
 $C_{26}H_{24}O_{14}$  (560.47). Amorphous powder,  $[\alpha]_D = -21.6^\circ$  ( $c = 0.1$ , MeOH). Pharm: Cytotoxic (panel of hmn cancer cell lines, according to established protocols of Likitwitayawuid 1993 and Seo 2001,  $ED_{50}$  values of  $> 5\text{mg/mL}$  are regarded as inactive). Source: MA SI TE SI DU YING *Elaeocarpus mastersii*. Ref: 2020.

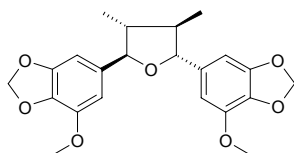


**6347 3,4'-O-Dimethyllellagic acid 4-O- $\alpha$ -L-rhamnopyranoside**

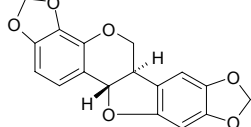
C<sub>22</sub>H<sub>20</sub>O<sub>12</sub> (476.40). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -42.4° (c = 0.1, MeOH). Source: SHI LIU XIN CAI *Punica granatum*. Ref: 5415.

**6348 *rel*-(7*R*,8*R*,7'*R*,8'*R*)-3,4,3',4'-Dimethylenedioxy-5,5'-dimethoxy-7,7'-epoxylignan**

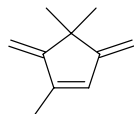
C<sub>22</sub>H<sub>24</sub>O<sub>7</sub> (400.43). Pale yellow oil, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -10.1° (c = 0.01, MeOH). Pharm: Antitrypanosomal (trypanomastigote form of *Trypanosoma cruzi* (Y strain), IC<sub>50</sub> = 3.47 μg/mL). Source: *Piper solmsianum*. Ref: 3450.

**6349 3,4-Dimethylenedioxypterocarpan**

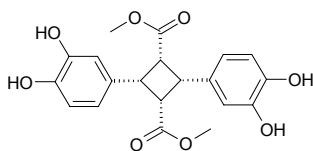
C<sub>17</sub>H<sub>12</sub>O<sub>6</sub> (312.28). White crystals, mp 154~156°C. Source: KEN NI YA HUI YE *Tephrosia aequilata*. Ref: 1957.

**6350 3,5-Dimethylene-1,4,4-trimethylcyclopentene**

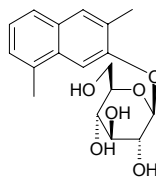
C<sub>10</sub>H<sub>14</sub> (134.22). Colorless oil. Source: *Lavandula luisieri* (essential oil). Ref: 5301.

**6351 Dimethyl ester of (1 $\alpha$ ,2 $\alpha$ ,3 $\alpha$ ,4 $\alpha$ )-2,4-bis(3,4-dihydroxyphenyl)-1,3-cyclobutanedicarboxylic acid**

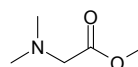
C<sub>20</sub>H<sub>20</sub>O<sub>8</sub> (388.38). Colorless needles, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = 0° (c = 0.47, MeOH). Pharm: Antihistamine (inhibits histamine release, rat mast cell, induced by antigen-antibody reaction, IC<sub>50</sub> = 16.9 μg/mL, control Indomethacin, IC<sub>50</sub> = 89.5 μg/mL); PGE<sub>2</sub> production inhibitor (30 μg/mL, InRt = 76.5%). Source: XIAO HUA GUI ZHEN *Bidens parviflora* Ref: 3364.

**6352 2,5-Dimethyl-3-O- $\beta$ -D-glucopyranosylnaphthol**

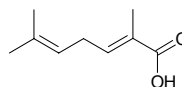
C<sub>18</sub>H<sub>22</sub>O<sub>6</sub> (334.37). Yellowish oil. Source: DA MA JIN *Hibiscus cannabinus* (bark). Ref: 5233.

**6353 *N,N*-Dimethyl glycine methyl ester**

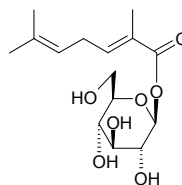
[7148-06-3] C<sub>5</sub>H<sub>11</sub>NO<sub>2</sub> (117.15). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 2.

**6354 (2*E*)-2,6-Dimethyl-2,5-heptadienoic acid**

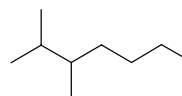
C<sub>9</sub>H<sub>14</sub>O<sub>2</sub> (154.21). Colorless oil. Source: DA GUO XI FAN LIAN *Passiflora quadrangularis* (fruit). Ref: 3900.

**6355 (2*E*)-2,6-Dimethyl-2,5-heptadienoic acid  $\beta$ -D-glucopyranosyl ester**

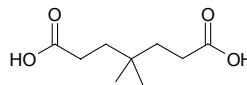
C<sub>15</sub>H<sub>24</sub>O<sub>7</sub> (316.35). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +12.6° (c = 0.78, MeOH). Source: DA GUO XI FAN LIAN *Passiflora quadrangularis* (fruit). Ref: 3900.

**6356 2,3-Dimethylheptane**

[3074-71-3] C<sub>9</sub>H<sub>20</sub> (128.26). Source: SHAN ZHA *Crataegus pinnatifida*. Ref: 2.

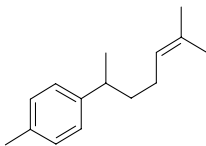
**6357 4,4-Dimethyl-1,7-heptanedioic acid**

C<sub>9</sub>H<sub>16</sub>O<sub>4</sub> (188.23). White powder, easy dissolve in methanol and acetone, mp 104~107°C. Source: CHAN YI TENG *Securidaca inappendiculata*. Ref: 2183.

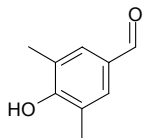


**6358 1-(1,5-Dimethyl-4-hexenyl)-4-methyl benzene**

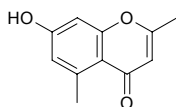
$C_{15}H_{22}$  (202.34). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

**6359 3,5-Dimethyl-4-hydroxy-benzaldehyde**

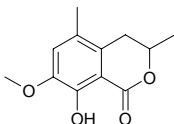
$C_9H_{10}O_2$  (150.18). Source: LIU CHUAN YU *Linaria vulgaris*. Ref: 4237.

**6360 2,5-Dimethyl-7-hydroxy chromone**

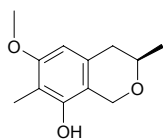
$C_{11}H_{10}O_3$  (190.20). mp 220~222°C. Source: HU ZHANG *Polygonum cuspidatum*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], TIAN SHAN DA HUANG *Rheum wittrockii*. Ref: 2, 609.

**6361 3,5-Dimethyl-8-hydroxy-7-methoxy-3,4-dihydroisocoumarin**

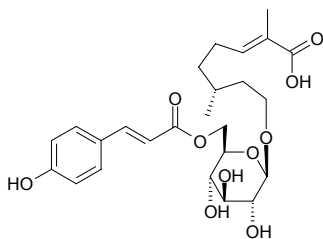
$C_{12}H_{14}O_4$  (222.24). Colorless needles. Pharm: Antifungal (*Aspergillus niger*, MIC = 50µg/mL control Nystatin, MIC = 12.5µg/mL; *Cladosporium herbarum*, MIC = 50µg/mL, Nystatin, MIC = 12.5µg/mL); antibacterial (*Bacillus subtilis*, MIC = 25µg/mL, control Chloramphenicol, MIC = 3.13µg/mL; *Pseudomonas syringae*, MIC = 100µg/mL, control Chloramphenicol, MIC = 3.13µg/mL). Source: *Cytospora eucalypticola*. Ref: 3367.

**6362 3,7-Dimethyl-8-hydroxy-6-methoxyisochroman**

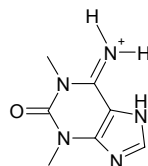
$C_{12}H_{16}O_3$  (208.26). Source: *Penicillium steckii*. Ref: 3960.

**6363 (2E,6R)-2,6-Dimethyl-8-hydroxy-2-octenoic acid****8-O-[6'-O-(E)-p-coumaroyl]-β-D-glucopyranoside**

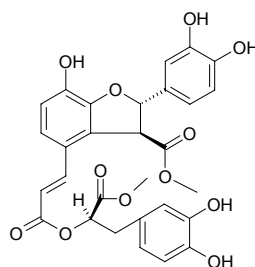
$C_{25}H_{34}O_{10}$  (494.54). Amorphous powder,  $[\alpha]_D^{25} = -15.0^\circ$  ( $c = 0.1$ , MeOH). Source: ZI YE *Catalpa ovata* (leaf, fallen leaf). Ref: 3536, 4290.

**6364 1,3-Dimethylisoguaninium**

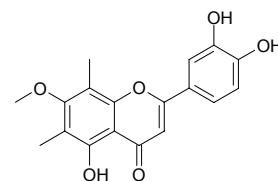
$C_7H_{10}N_5O^+$  (180.19). Colorless needles (EtOH). Pharm: Inhibits specifically basic fibroblast growth factor (bFGF)-induced proliferation of bovine aorta endothelial cells (BAECs); reduces tube formation of BAECs in a time-dependent manner. Source: Sponge *Amphimedon paraviridis*. Ref: 4351.

**6365 Dimethyl lithospermate**

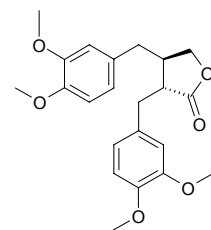
$C_{29}H_{26}O_{12}$  (566.52). Pharm: Antioxidant (DPPH scavenger,  $IC_{50} = 0.1197$ mmol/L, control Propyl gallate,  $IC_{50} = 0.03$ mmol/L; superoxide radical inhibitor, inactive, Propyl gallate,  $IC_{50} = 0.106$ mmol/L; iron chelating assay, inactive, Propyl gallate,  $IC_{50} = 0.064$ mmol/L). Source: MING XIAN HUA ZHU CHANG ZHU LIU LI CAO *Lindelofia stylosa* (aerial parts). Ref: 4533.

**6366 6,8-Di-C-methyllyuteolin 7-methyl ether**

$C_{18}H_{16}O_6$  (328.32). Yellow needles ( $CHCl_3$ -MeOH), mp 288~290°C. Pharm: Antibacterial (oral pathogens: *Streptococcus mutans*, MIC > 500µg/mL, control Chlorhexidine gluconate, MIC = 1.25µg/mL; *Fusobacterium nucleatum*, MIC = 375µg/mL, Chlorhexidine gluconate, MIC = 2.5µg/mL). Source: BAI MAO GEN<sup>(4)</sup> *Hydrastis canadensis* (root). Ref: 5418.

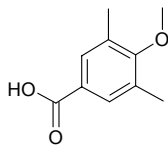
**6367 Dimethylmatairesinol**

$C_{22}H_{26}O_6$  (386.45). Pharm: Cytotoxic (A549,  $ED_{50} = 1.9$ µmol/L,  $ED_{50} = 5.0$ µg/mL, control Adriamycin,  $ED_{50} = 0.01$ µmol/L,  $ED_{50} = 0.02$ µg/mL; MCF7,  $ED_{50} = 1.8$ µmol/L,  $ED_{50} = 4.7$ µg/mL, Adriamycin,  $ED_{50} = 0.1$ µmol/L,  $ED_{50} = 0.1$ µg/mL; HT29,  $ED_{50} = 1.4$ µmol/L,  $ED_{50} = 3.5$ µg/mL, Adriamycin,  $ED_{50} = 0.1$ µmol/L,  $ED_{50} = 0.1$ µg/mL)<sup>[5088]</sup>. Source: E SHEN *Anthriscus sylvestris*, TAI WAN SHAN *Taiwania cryptomerioides* (heartwood). Ref: 5088, 5499.

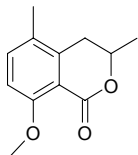


**6368 3,5-Dimethyl-4-methoxybenzoic acid**

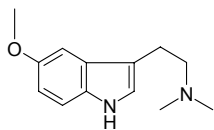
[21553-46-8] C<sub>10</sub>H<sub>12</sub>O<sub>3</sub> (180.21). mp 145°C. Source: JIAN YE FAN XIE YE *Cassia acutifolia*. Ref: 6, 660.

**6369 3,5-Dimethyl-8-methoxy-3,4-dihydroisocoumarin**

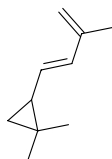
C<sub>12</sub>H<sub>14</sub>O<sub>3</sub> (206.24). Colorless needles. Source: *Cytospora eucalypticola*. Ref: 3367.

**6370 N,N-Dimethyl-5-methoxy tryptamine**

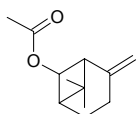
5-Methoxy-N,N-dimethyl-tryptamine [1019-45-0] C<sub>13</sub>H<sub>18</sub>N<sub>2</sub>O (218.30). mp 47°C. Pharm: Toxin (similar action with bufotenine). Source: WU ZHU YU *Evodia rutaecarpa*, HONG MU JI CAO *Desmodium gangeticum*, PAI QIAN CAO *Desmodium pulchellum* [Syn. *Phylloidium pulchellum*], YI CAO *Phalaris arundinacea*. Ref: 2, 6, 658.

**6371 1,1-Dimethyl-2-(3-methyl-1,3-butadiene)cyclo-propane**

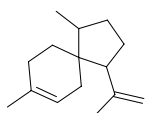
C<sub>10</sub>H<sub>16</sub> (136.24). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 2.

**6372 7,7-Dimethyl-2-methylenebicyclo[3.1.1]heptan-6-ol acetate**

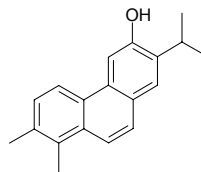
C<sub>12</sub>H<sub>18</sub>O<sub>2</sub> (194.28). Colorless oil. Source: *Psiadia anchusifolia* (fresh leaf). Ref: 3787.

**6373 1,8-Dimethyl-4-(1-methylenyl)-spiro(4,5) dec-7-ene**

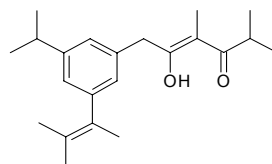
Isoacoradinene C<sub>15</sub>H<sub>24</sub> (204.36). Source: DANG GUI *Angelica sinensis*, WU WEI ZI *Schisandra chinensis*. Ref: 2, 660.

**6374 7,8-Dimethyl-2-(1-methylethyl)phenanthren-3-ol**

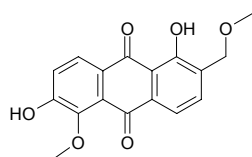
C<sub>19</sub>H<sub>20</sub>O (264.37). Yellowish gum. Source: XIU QIU SHU WEI CAO *Salvia hydrangea* (root). Ref: 5447.

**6375 2,4-Dimethyl-6-(3'-methyl-isobuten-5'-isopropyl)-phenyl-3,5-hexanedione**

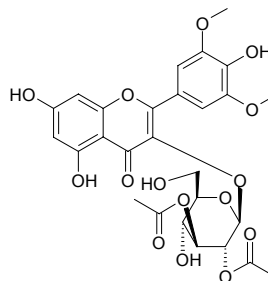
C<sub>22</sub>H<sub>32</sub>O<sub>2</sub> (328.50). Brick red oil. Source: XIAN MAI XUAN FU HUA *Inula nervosa*. Ref: 795.

**6376 5,15-Dimethylmorindol**

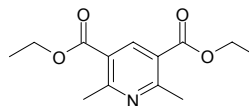
C<sub>17</sub>H<sub>14</sub>O<sub>6</sub> (314.30). Yellow amorphous powder. Source: HAI BA JI *Morinda citrifolia* (fruit). Ref: 4542.

**6377 3',5'-O-Dimethylmyricetin 3-O-β-D-2'',3''-diacetylglucopyranoside**

C<sub>27</sub>H<sub>28</sub>O<sub>15</sub> (592.52). Yellow amorphous powder, mp>250°C. Source: *Warburgia stuhlmannii* (leaf). Ref: 3398.

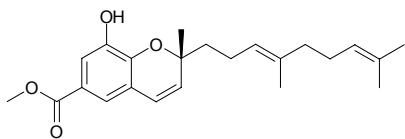
**6378 2,6-Di-C-methyl-nicotinic acid 3,5-diethyl ester**

C<sub>13</sub>H<sub>17</sub>NO<sub>4</sub> (251.28). Colorless needles. Source: *Viburnum tinus* (leaf). Ref: 5339.

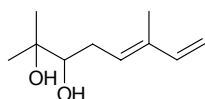


**6379 2-(4',8'-Dimethylnona-3',7'-dienyl)-8-hydroxy-2-methyl-2H-chromene-6-carboxylic methyl ester**

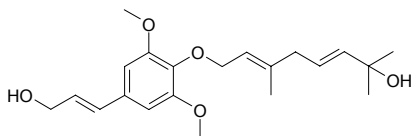
$C_{23}H_{30}O_4$  (370.49). Brown amorphous solid. Source: SAN XING HU JIAO *Piper umbellatum* (branch), DUN YE HU JIAO *Piper peltatum* (branch). Ref: 5274.

**6380 (5E)-2,6-Dimethyl-5,7-octadiene-2,3-diol**

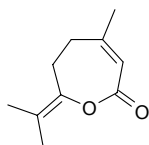
$C_{10}H_{18}O_2$  (170.25). Colorless oil.  $[\alpha]_D^{23} = -19.7^\circ$  ( $c = 0.62$ , MeOH). Source: DA GUO XI FAN LIAN *Passiflora quadrangularis* (fruit). Ref: 3900.

**6381 4-O-[(2E,5E)-3,7-Dimethyl-2,5-octadiene-7-ol]-sinapyl alcohol**

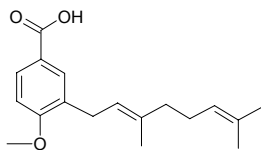
$C_{21}H_{30}O_5$  (362.47). Source: LIAN YE TUO WU *Ligularia nelumbifolia* (root, yield = 0.0013%dw). Ref: 4632.

**6382 3,7-Dimethyl-2,6-octadien-1,6-olide**

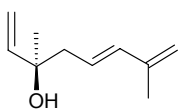
$C_{10}H_{14}O_2$  (166.22). Source: *Plagiochila rutilans*. Ref: 5144.

**6383 3-(3',7'-Dimethyl-2',6'-octadienyl)-4-methoxybenzoic acid**

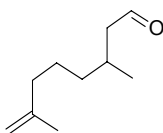
$C_{18}H_{24}O_3$  (288.39). Amorphous solid. Source: GOU ZHUANG HU JIAO *Piper aduncum*. Ref: 2323.

**6384 3,7-Dimethyl-1,5,7-octatrien-3-ol**

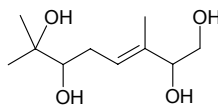
$C_{10}H_{16}O$  (152.24). Source: CHA YE *Camellia sinensis* [Syn. *Thea sinensis*]. Ref: 6.

**6385 3,7-Dimethyl-7-octenal**

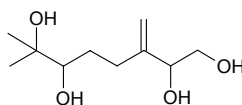
[141-26-4]  $C_{10}H_{18}O$  (154.25). Source: JU PI *Citrus reticulata*. Ref: 2.

**6386 (3E)-3,7-Dimethyl-3-octene-1,2,6,7-tetrol**

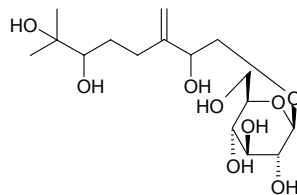
$C_{10}H_{20}O_4$  (204.27). Colorless oil.  $[\alpha]_D^{25} = -11.9^\circ$  ( $c = 0.67$ , MeOH). Source: DA GUO XI FAN LIAN *Passiflora quadrangularis* (fruit). Ref: 3900.

**6387 3,7-Dimethyloct-3(10)-ene-1,2,6,7-tetrol**

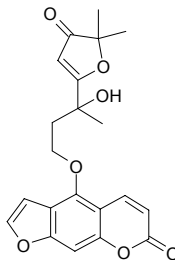
$C_{10}H_{20}O_4$  (204.27). Source: BEI SHA SHEN *Glehnia littoralis* (fruit). Ref: 3525.

**6388 (2S,6Z)-3,7-Dimethyloct-3(10)-ene-1,2,6,7-tetrol 1-O-beta-D-glucopyranoside**

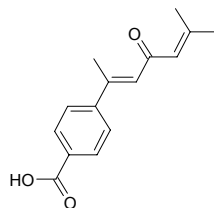
$C_{16}H_{30}O_9$  (366.41). Amorphous powder,  $[\alpha]_D^{24} = -21^\circ$  ( $c = 0.5$ , MeOH). Source: BEI SHA SHEN *Glehnia littoralis* (fruit). Ref: 3525.

**6389 O-[3-(2,2-Dimethyl-3-oxo-2H-furan-5-yl)-3-hydroxybutyl]bergaptol**

$C_{21}H_{20}O_7$  (384.39). Colorless needles (hexane-EtOAc), mp 168-169°C,  $[\alpha]_D = -5.0^\circ$  ( $c = 0.12$ , MeOH). Source: TUO YUAN DUO TAN CAO *Dorstenia elliptica* (twig). Ref: 3754.

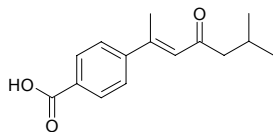
**6390 (E)-4-(1,5-Dimethyl-3-oxo-1,4-hexadienyl)benzoic acid**

$C_{15}H_{16}O_3$  (244.29). mp 156°C. Pharm: Antifungal (TLC bioautography method at very low concentration). Source: SI LI LAN KA TU MI SHU *Bridelia retusa*. Ref: 2021.

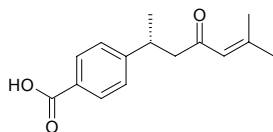


**6391 (E)-4-(1,5-Dimethyl-3-oxo-1-hexenyl)benzoic acid**

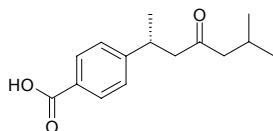
$C_{15}H_{18}O_3$  (246.31). mp 122°C. Pharm: Antifungal (TLC bioautography method at very low concentration). Source: SI LI LAN KA TU MI SHU *Bridelia retusa*. Ref: 2021.

**6392 (R)-4-(1,5-Dimethyl-3-oxo-4-hexenyl)benzoic acid**

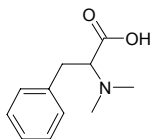
$C_{15}H_{18}O_3$  (246.31). mp 83~88°C,  $[\alpha]_D^{25} = -68.1^\circ$  ( $c = 0.34$ ,  $CHCl_3$ ). Pharm: Antifungal (TLC bioautography method at very low concentration). Source: SI LI LAN KA TU MI SHU *Bridelia retusa*. Ref: 2021.

**6393 (R)-4-(1,5-Dimethyl-3-oxohexyl)benzoic acid**

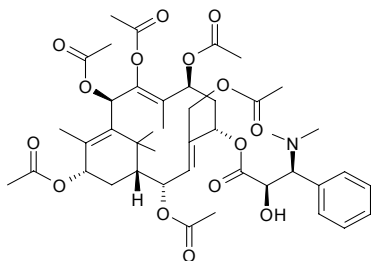
$C_{15}H_{20}O_3$  (248.32). mp 62°C,  $[\alpha]_D^{25} = -26.3^\circ$  ( $c = 0.63$ ,  $CHCl_3$ ). Pharm: Antifungal (TLC bioautography method at very low concentration). Source: SI LI LAN KA TU MI SHU *Bridelia retusa*. Ref: 2021.

**6394 N,N-Dimethylphenylalanine**

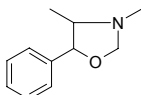
$C_{11}H_{15}NO_2$  (193.15). Colorless acicular crystals. Source: HUANG YING PI MA BO *Scleroderma citrinum*. Ref: 2180.

**6395 (2'S,3'R)-5-(N,N-Dimethyl-3'-phenylisoseril)-taxachitriene A**

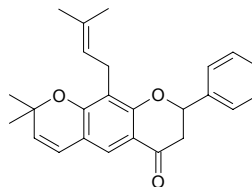
$C_{43}H_{57}NO_{15}$  (827.93). mp 93~95°C,  $[\alpha]_D = +22.3^\circ$  ( $CHCl_3$ ). Source: HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**6396 3,4-Dimethyl-5-phenyloxazolidine**

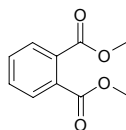
$C_{11}H_{15}NO$  (177.25). Source: MA HUANG *Ephedra sinica*. Ref: 2.

**6397 8,8-Dimethyl-2-phenyl-10-prenyl-2,3-dihydro-8H-pyrano[3,2-g]chroman-4-one**

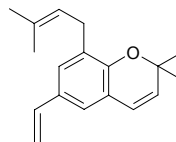
$C_{25}H_{26}O_3$  (374.48). Colorless needles (petroleum ether :  $CHCl_3 = 10:1$ ), mp 121~122°C. Source: GAN HUA DOU *Fordia cauliflora* (stem). Ref: 4564.

**6398 Dimethyl phthalate**

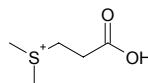
[131-11-3]  $C_{10}H_{10}O_4$  (194.19). Source: DANG GUI *Angelica sinensis*. Ref: 2.

**6399 2,2-Dimethyl-8-prenyl-6-vinylchromene**

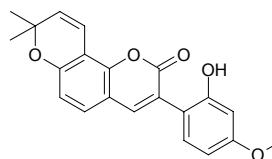
$C_{18}H_{22}O$  (254.38). Colorless oil. Source: FENG JIAO *Apis mellifera ligustica*. Ref: 4124.

**6400 Dimethyl-β-propriothetin**

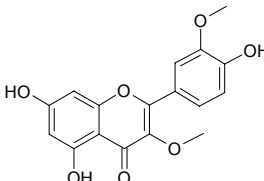
[4337-33-1]  $C_5H_{11}O_2S^+$  (135.11). Source: SHI CHUN *Ulva lactuca*. Ref: 6.

**6401 [6'',6''-Dimethylpyrano-(2'',3'':7,8)]-4'-methoxy-3-arylcoumarin**

$C_{21}H_{18}O_5$  (350.37). Source: *Glycyrrhiza* sp. Ref: 2431.

**6402 3,3'-Dimethylquercetin**

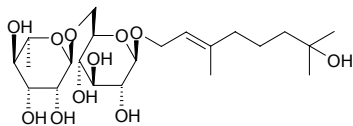
3,3'-Dimethoxyquercetin [4382-17-6]  $C_{17}H_{14}O_7$  (330.29). Yellowish acicular crystals (methanol), mp 255°C. Pharm: Antifungal; antiviral (epidemic type-1 poliomyelitis virus and Gesak-B<sub>4</sub> virus, 0.01μg/mL, InRt = 90%); cytotoxic (P<sub>388</sub>, ED<sub>50</sub> = 1.7μg/mL); insect antifeedant (boll weevil); smooth muscle relaxant. Source: E BU SHI CAO *Centipeda minima*, GAN CAO *Glycyrrhiza uralensis*, LU CAO *Rhaponticum carthamoides*. Ref: 171, 660, 900, 4006, 4007.





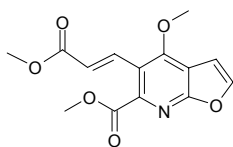
**6403 (E)-3,7-Dimethyl-1-O-[ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl-oct-2-en-7-ol**

$C_{22}H_{40}O_{11}$  (480.56). Viscous solid,  $[\alpha]_D^{24.3} = -57.0^\circ$  ( $c = 0.383$ , MeOH).  
**Source:** YU YE GUI DENG QING *Rodgersia pinnata* (rhizome). **Ref:** 4570.



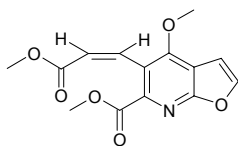
**6404 E-Dimethyl rhoifolinat**

$C_{14}H_{13}NO_6$  (291.26). **Pharm:** Cytotoxic (P<sub>388</sub> cell line, ED<sub>50</sub> = 8.1  $\mu$ g/mL, control Mithramycin, ED<sub>50</sub> = 0.06  $\mu$ g/mL; HT29, ED<sub>50</sub> = 13.5  $\mu$ g/mL, Mithramycin, ED<sub>50</sub> = 0.07  $\mu$ g/mL; A549, ED<sub>50</sub> = 3.6  $\mu$ g/mL, Mithramycin, ED<sub>50</sub> = 0.08  $\mu$ g/mL)<sup>[5405]</sup>. **Source:** SI ROU TUO GUO YE MI ZHU YU *Melicope semecarpifolia*. **Ref:** 5405.



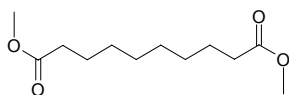
**6405 Z-Dimethyl rhoifolinat**

$C_{14}H_{13}NO_6$  (291.26). **Pharm:** Cytotoxic (P<sub>388</sub> cell line, ED<sub>50</sub> = 8.0  $\mu$ g/mL, control Mithramycin, ED<sub>50</sub> = 0.06  $\mu$ g/mL; HT29, ED<sub>50</sub> = 16.2  $\mu$ g/mL, Mithramycin, ED<sub>50</sub> = 0.07  $\mu$ g/mL; A549, ED<sub>50</sub> = 3.4  $\mu$ g/mL, Mithramycin, ED<sub>50</sub> = 0.08  $\mu$ g/mL). **Source:** SI ROU TUO GUO YE MI ZHU YU *Melicope semecarpifolia*. **Ref:** 5405.



**6406 Dimethyl sebacate**

[106-79-6]  $C_{12}H_{22}O_4$  (230.31). **Source:** DANG GUI *Angelica sinensis*. **Ref:** 2.



**6407 Dimethyl sulfide**

[75-18-3]  $C_2H_6S$  (62.13). bp 37.5~38.0°C. **Source:** DA SUAN *Allium sativum*, SHUI SONG *Codium fragile*. **Ref:** 6.



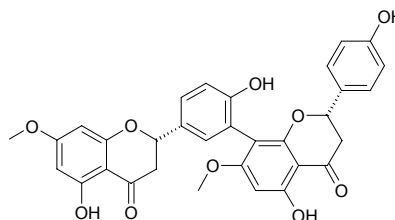
**6408 Dimethyl sulfone**

Sulfonyl bis-methane [67-71-0]  $C_2H_6O_2S$  (94.13). **Source:** MU ZEI *Equisetum hiemale*. **Ref:** 2.



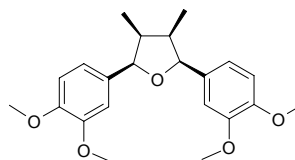
**6409 (2S,2''S)-7,7''-Di-O-methyltetrahydroaemtoflavone**

$C_{32}H_{26}O_{10}$  (570.56). Yellow amorphous powder,  $[\alpha]_D = -25.4^\circ$  ( $c = 0.024$ , Me<sub>2</sub>SO). **Pharm:** Antimalarial (*Plasmodium falciparum* W2, IC<sub>50</sub> = 0.98  $\mu$ g/mL, control Chloroquine, IC<sub>50</sub> = 0.238  $\mu$ g/mL; *Plasmodium falciparum* D6, IC<sub>50</sub> = 2.8  $\mu$ g/mL, Chloroquine, IC<sub>50</sub> = 0.026  $\mu$ g/mL); cytotoxic inactive. **Source:** SHU ZHI YAN FU MU *Rhus retinorrhoea* (leaf). **Ref:** 5201.



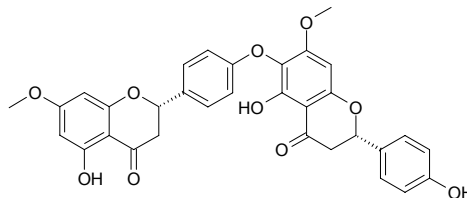
**6410 Di-O-methyltetrahydrofuruaiacin B**

$C_{22}H_{28}O_5$  (372.47). Amorphous powder,  $[\alpha]_D = +43^\circ$  ( $c = 0.5$ , CHCl<sub>3</sub>). **Source:** SAN BAI CAO *Saururus chinensis* (underground part). **Ref:** 4122.



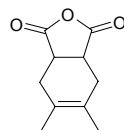
**6411 7,7''-Di-O-methyltetrahydrohinokiflavone**

$C_{32}H_{26}O_{10}$  (570.56). Colorless needles (Me<sub>2</sub>CO), mp 226~228°C,  $[\alpha]_D^{25} = -1.45^\circ$  ( $c = 1.0$ , MeOH). **Source:** NAN YIN DU SU TIE SHU GUO *Cycas beddomei* (stem). **Ref:** 3929.



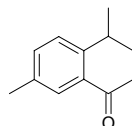
**6412 5,6-Dimethyl-3a,4,7,7a-tetrahydro-1,3-isoben-zofurandione**

$C_{10}H_{12}O_3$  (180.21). **Source:** DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. **Ref:** 2.



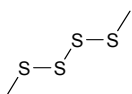
**6413 4,7-Dimethyl-1-tetralone**

1,6-Dimethyl-4-keto-tetrahydronaphthalene [28449-86-7]  $C_{12}H_{14}O$  (174.24). Oil, bp 118°C/4mmHg, bp 146.5~147.0°C/11.5mmHg, bp 145~152°C/15mmHg,  $[\alpha]_D^{20} = +5.60^\circ$  ( $c = 0.3035$ , chloroform). **Pharm:** Antimalarial (*in vitro*, *Plasmodium falciparum*, EC<sub>50</sub> = 86.2  $\mu$ mol/L). **Source:** XIANG FU *Cyperus rotundus*. **Ref:** 900, 1089.

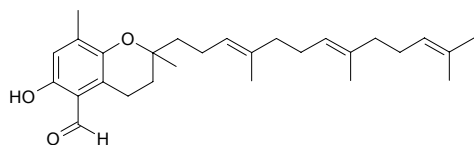


**6414 Dimethyl tetrasulfide**

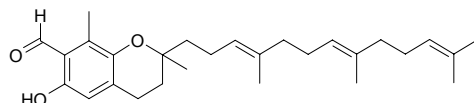
[5756-24-1] C<sub>2</sub>H<sub>6</sub>S<sub>4</sub> (158.33). Source: JIU CAI *Allium tuberosum*. Ref: 6.

**6415 2,8-Dimethyl-2-[(3E,7E)-4,8,12-trimethyltrideca-3,7,11-trienyl]-5-formyl-chroman-6-ol**

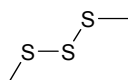
C<sub>28</sub>H<sub>40</sub>O<sub>3</sub> (424.63). Pale yellow oil, [α]<sub>D</sub><sup>25</sup> = -11.1° (c = 0.18, MeOH). Source: DUO ZHI ZHI TENG HUANG *Garcinia virgata* (stem cortex). Ref: 3874.

**6416 2,8-Dimethyl-2-[(3E,7E)-4,8,12-trimethyltrideca-3,7,11-trienyl]-7-formyl-chroman-6-ol**

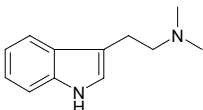
C<sub>28</sub>H<sub>40</sub>O<sub>3</sub> (424.63). Source: DUO ZHI ZHI TENG HUANG *Garcinia virgata* (stem cortex). Ref: 3874.

**6417 Dimethyl trisulfide**

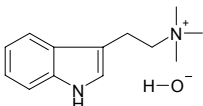
[3658-80-8] C<sub>2</sub>H<sub>6</sub>S<sub>3</sub> (126.26). Source: DA SUAN *Allium sativum*. Ref: 2.

**6418 N,N-Dimethyltryptamine**

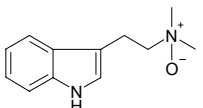
[61-50-7] C<sub>12</sub>H<sub>16</sub>N<sub>2</sub> (188.27). mp 48–49°C. Pharm: Causes mental illness; increases blood pressure; mydriatic. Source: CI YANG LI DOU *Mucuna pruriens*, LU ZHU GEN *Arundo donax*, HONG MU JI CAO *Desmodium gangeticum*, PAI QIAN CAO *Desmodium pulchellum* [Syn. *Phylloidium pulchellum*]. Ref: 6, 658.

**6419 N,N-Dimethyltryptamine-methohydroxide**

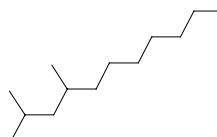
C<sub>13</sub>H<sub>20</sub>N<sub>2</sub>O (203.31). Source: LU ZHU GEN *Arundo donax*. Ref: 6.

**6420 N,N-Dimethyltryptamine N-oxide**

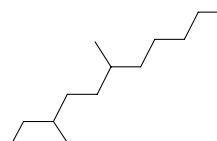
C<sub>12</sub>H<sub>16</sub>N<sub>2</sub>O (204.27). Pharm: Uterine stimulant. Source: CI YANG LI DOU *Mucuna pruriens*, HONG MU JI CAO *Desmodium gangeticum*, PAI QIAN CAO *Desmodium pulchellum* [Syn. *Phylloidium pulchellum*]. Ref: 6.

**6421 2,4-Dimethyl-undecane**

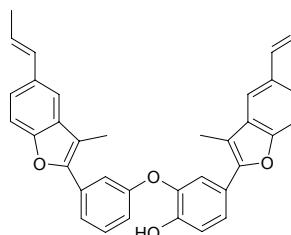
C<sub>13</sub>H<sub>28</sub> (184.37). Source: SHAN ZHA *Crataegus pinnatifida*. Ref: 2.

**6422 3,6-Dimethyl-undecane**

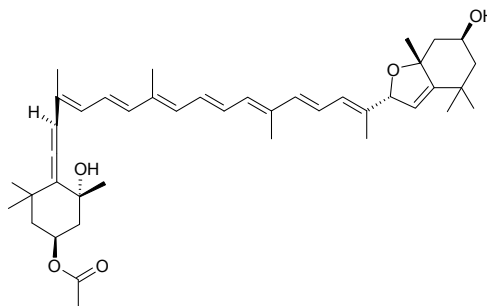
C<sub>13</sub>H<sub>28</sub> (184.37). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 2.

**6423 Dineolignan**

C<sub>36</sub>H<sub>30</sub>O<sub>4</sub> (526.64). Yellow viscous oil. Source: TE LI NI DA HU JIAO *Piper aequale*. Ref: 1910.

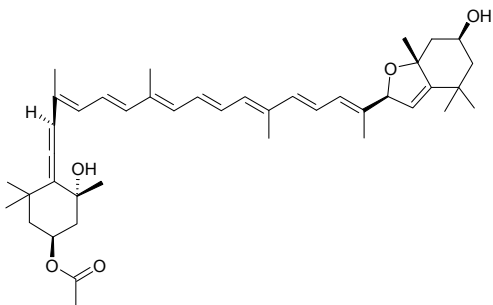
**6424 Dinochrome A**

(3*S*,5*R*,6*R*,3'*S*,5'*R*,8'*R*)-Epoxy-6,7-didehydro-5,6,5',8'-tetrahydro-β,β-c arotene-3,5,3'-triol 3-*O*-acetate C<sub>42</sub>H<sub>58</sub>O<sub>5</sub> (642.93). Yellow crystal. Pharm: Anti-carcinogenic (inhibits 50nmol/L 12-*O*-tetradecanoyl phorbol 13-acetate (TPA)-stimulated <sup>32</sup>P-incorporation into the phospholipids of HeLa cells, 25μg/mL, InRt = 72.1%; inhibits the proliferation of hmn malignant tumor cells, such as GOTO, OST and HeLa cells). Source: ER JIAO DUO JIA ZAO *Peridinium bipes*. Ref: 4256.

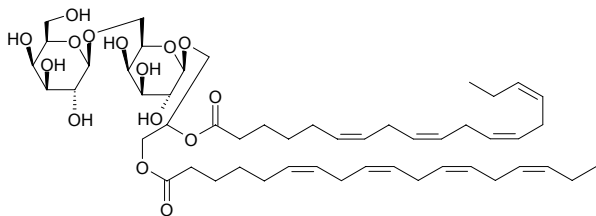


**6425 Dinochrome B**

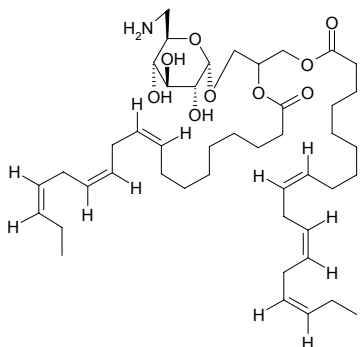
(3*S*,5*R*,6*R*,3'*S*,5'*R*,8'*S*)-5',8'-Epoxy-6,7-didehydro-5,6,5',8'-tetrahydro- $\beta$ - $\beta$ -carotene-3,5,3'-triol 3-*O*-acetate C<sub>42</sub>H<sub>58</sub>O<sub>5</sub> (642.93). Yellow crystal. **Pharm:** Anti-carcinogenic (inhibits 50nmol/L 12-*O*-tetradecanoyl phorbol 13-acetate (TPA)-stimulated <sup>32</sup>P-incorporation into the phospholipids of HeLa cells, 25 $\mu$ g/mL, InRt = 35.0%). **Source:** ER JIAO DUO JIA ZAO *Peridinium bipes*. **Ref:** 4256.

**6426 (2*S*)-1,2-*O*-6,9,12,15-Dioctadecatetraenoyl-3-*O*-[ $\alpha$ -*D*-galactopyranosyl-(1'''' $\rightarrow$ 6''')-*O*- $\beta$ -*D*-galactopyranosyl]-glycerol**

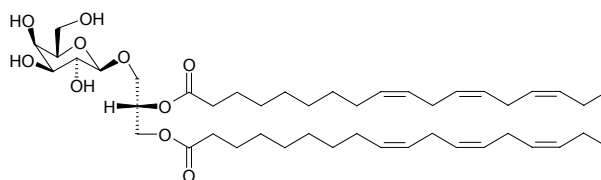
C<sub>51</sub>H<sub>80</sub>O<sub>15</sub> (933.20). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +52° (*c* = 0.80, MeOH). **Source:** KA SHI QIAN GOU ZAO *Amphidinium carterae*. **Ref:** 4448.

**6427 1,2-*O*-(9*Z*,12*Z*,15*Z*-octadecatrienoyl)-3-*O*-(6-amino-6-deoxy- $\alpha$ -*D*-glucosyl)-glycerol**

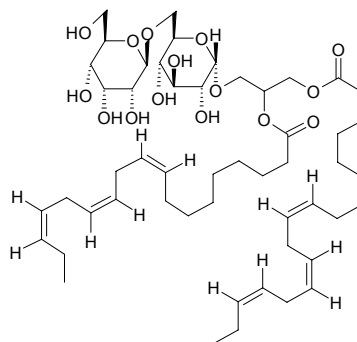
C<sub>45</sub>H<sub>75</sub>NO<sub>9</sub> (774.10). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +25.5° (*c* = 3.01, MeOH). **Pharm:** Antibacterial (*Bacillus subtilis*, IZD = 10~12mm, control Chloramphenicol, IZD = 16~20mm; *Escherichia coli*, IZD = 16~20mm, Chloramphenicol, IZD = 16~20mm; *Staphylococcus aureus*, IZD = 10~12mm, Chloramphenicol, IZD = 16~20mm); cytotoxic (SMMC-7721, IC<sub>50</sub> = (351.4 $\pm$ 6.1) $\mu$ g/mL, control Vincristine, IC<sub>50</sub> = (63.2 $\pm$ 1.8) $\mu$ g/mL; B16, IC<sub>50</sub> = (157.3 $\pm$ 2.5) $\mu$ g/mL, Vincristine, IC<sub>50</sub> = (70.7 $\pm$ 2.8) $\mu$ g/mL; HeLa, IC<sub>50</sub> = (168.2 $\pm$ 1.9) $\mu$ g/mL, Vincristine, IC<sub>50</sub> = (67.2 $\pm$ 2.2) $\mu$ g/mL). **Source:** YI BAO MA HUA TOU *Serratula strangulata* (root stem). **Ref:** 5244.

**6428 (2*S*)-1,2-*O*-[(9*Z*,12*Z*,15*Z*)-octadeca-9,12,15-trienoyl]-3-*O*- $\beta$ -*D*-galactopyranosyl glycerol**

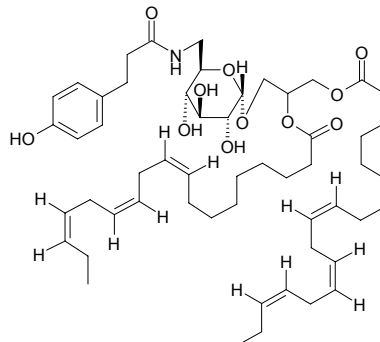
C<sub>45</sub>H<sub>74</sub>O<sub>10</sub> (775.09). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -3.0° (*c* = 0.4 CHCl<sub>3</sub>). **Pharm:** Anti-inflammatory (inhibits chemotaxis of hmn peripheral blood neutrophils *in vitro*, The inhibiting activity at 100, 50, 10, 1, and 0.1 $\mu$ g/mL, InRt = 82%, 77%, 62%, 64%, and 7%, respectively). **Source:** QUAN CHI QIANG WEI *Rosa canina* (fruit: yield = 0.025%dw). **Ref:** 4705.

**6429 1,2-*O*-(9*Z*,12*Z*,15*Z*-octadecatrienoyl)-3-*O*-[ $\alpha$ -*D*-glucose(1 $\rightarrow$ 6)- $\beta$ -*D*-allose]-glycerol**

C<sub>51</sub>H<sub>84</sub>O<sub>15</sub> (937.23). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +25.3° (*c* = 6.01, MeOH). **Pharm:** Antibacterial (*Bacillus subtilis*, IZD = 13~15mm, control Chloramphenicol, IZD = 16~20mm; *Escherichia coli*, IZD = 13~15mm, Chloramphenicol, IZD = 16~20mm; *Staphylococcus aureus*, IZD = 10~12mm, Chloramphenicol, IZD = 16~20mm). **Source:** YI BAO MA HUA TOU *Serratula strangulata* (root stem). **Ref:** 5244.

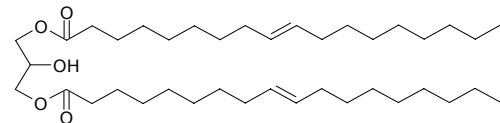
**6430 1,2-*O*-(9*Z*,12*Z*,15*Z*-octadecatrienoyl)-3-*O*-(6-*p*-hydroxy-phenyl-propionamido-6-deoxy- $\alpha$ -*D*-glucosyl)-glycerol**

C<sub>54</sub>H<sub>83</sub>NO<sub>11</sub> (922.26). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +25.8° (*c* = 2.7, MeOH). **Pharm:** Antibacterial (*Bacillus subtilis*, IZD = 13~15mm, control Chloramphenicol, IZD = 16~20mm; *Escherichia coli*, IZD = 16~20mm, Chloramphenicol, IZD = 16~20mm; *Staphylococcus aureus*, IZD = 10~12mm, Chloramphenicol, IZD = 16~20mm); cytotoxic (SMMC-7721, IC<sub>50</sub> = (151.6 $\pm$ 6.3) $\mu$ g/mL, control Vincristine, IC<sub>50</sub> = (63.2 $\pm$ 1.8) $\mu$ g/mL; B16, IC<sub>50</sub> = (70.3 $\pm$ 2.2) $\mu$ g/mL, Vincristine, IC<sub>50</sub> = (70.7 $\pm$ 2.8) $\mu$ g/mL; HeLa, IC<sub>50</sub> = (121.9 $\pm$ 3.1) $\mu$ g/mL, Vincristine, IC<sub>50</sub> = (67.2 $\pm$ 2.2) $\mu$ g/mL). **Source:** YI BAO MA HUA TOU *Serratula strangulata* (root stem). **Ref:** 5244.

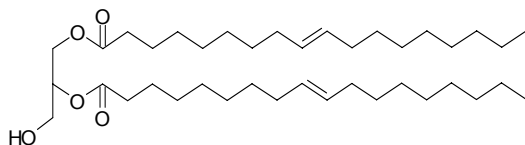


**6431  $\alpha$ : $\alpha$ -Diolein**

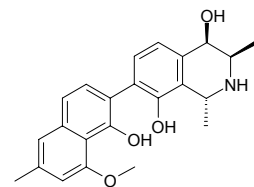
[98168-52-6] C<sub>39</sub>H<sub>72</sub>O<sub>5</sub> (621.01). mp 21.5°C, 25°C. Source: MANG GUO HE *Mangifera indica*. Ref: 6.

**6432  $\alpha$ : $\beta$ -Diolein**

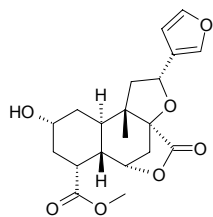
C<sub>39</sub>H<sub>72</sub>O<sub>5</sub> (621.01). Source: MANG GUO HE *Mangifera indica*. Ref: 6.

**6433 Dioncophyllinol B**

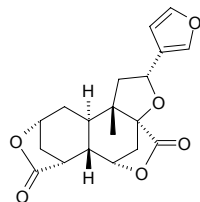
C<sub>23</sub>H<sub>25</sub>NO<sub>4</sub> (379.46). Pharm: Antimalarial (*Plasmodium falciparum* K1, IC<sub>50</sub> = 34ng/mL, NF54, IC<sub>50</sub> = 43ng/mL, MIC > 200µg/mL). Source: SAN YE MU *Triphyophyllum peltatum* (leaf). Ref: 3962.

**6434 Diosbulbin A**

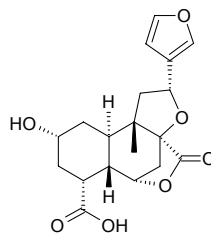
[20086-05-9] C<sub>20</sub>H<sub>24</sub>O<sub>7</sub> (376.41). mp 265°C. Source: HUANG YAO ZI *Dioscorea bulbifera*. Ref: 6, 641.

**6435 Diosbulbin B**

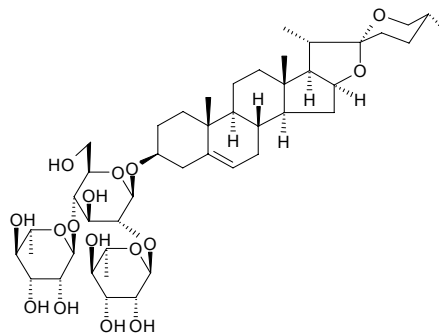
[20086-06-0] C<sub>19</sub>H<sub>20</sub>O<sub>6</sub> (344.37). mp 285°C (dec). Source: HUANG YAO ZI *Dioscorea bulbifera*. Ref: 6, 641.

**6436 Diosbulbin C**

[20086-07-1] C<sub>19</sub>H<sub>22</sub>O<sub>7</sub> (362.38). mp 247~250°C (dec). Source: HUANG YAO ZI *Dioscorea bulbifera*. Ref: 6, 641.

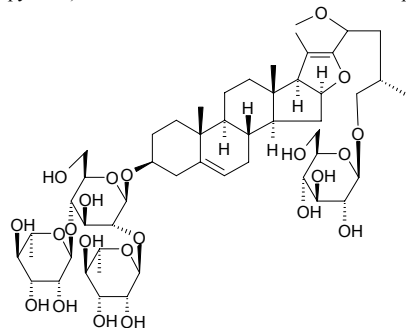
**6437 Dioscin**

[19057-60-4] C<sub>45</sub>H<sub>72</sub>O<sub>16</sub> (869.07). White amorphous powder, mp 288°C, [α]<sub>D</sub><sup>20</sup> = -115° (c = 0.4, MeOH); [α]<sub>D</sub><sup>25</sup> = -108.0° (c = 0.07, pyridine). Pharm: Antifungal (hmn pathogenic yeasts *Candida albicans*, MIC = 12.5µg/mL; *Candida glabrata*, MIC = 12.5µg/mL; *Candida tropicalis*, MIC = 25µg/mL)<sup>[4931]</sup>; antifungal (*Trichophyton mentagrophytes*); insecticidal; cytotoxic (HL-60); cytotoxic (*in vitro*: A375, IC<sub>50</sub> = (2.38±1.12)µmol/L, control Mithramycin, IC<sub>50</sub> = (0.37±0.05)µmol/L; L-929, IC<sub>50</sub> = (2.67±1.38)µmol/L, Mithramycin, IC<sub>50</sub> = (0.31±0.03)µmol/L; HeLa, IC<sub>50</sub> = (3.06±1.95)µmol/L, Mithramycin, IC<sub>50</sub> = (0.19±0.03)µmol/L)<sup>[5000]</sup>. Source: BAI YAO ZI *Stephania cepharantha*, BI XIE *Dioscorea hypoglauca* [Syn. *Dioscorea collettii* var. *hypoglauca*], CHUAN LONG SHU YU *Dioscorea nipponica*, CI JI LI *Tribulus terrestris*, FU ZHOU SHU YU *Dioscorea futschauensis*, HUANG SHAN YAO *Dioscorea panthaica*, LONG XUE SHU *Dracaena draco* (stem cortex)<sup>[4696]</sup>, MIAN BI XIE *Dioscorea spongiosa* (Rhizome: yield = 0.0019%)<sup>[4692]</sup>, RI BEN SHU YU *Dioscorea japonica*, SHAN BI XIE *Dioscorea tokoro*, SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], SHU KUI YE SHU YU *Dioscorea althaeoides*, XIAN XI SHU YU *Dioscorea gracillima*, ZAO XIU *Paris polyphylla*, HU BEI HUANG JING *Polygonatum zanlanscianense*, *Dioscorea cayenensis* (rhizome), *Costus* sp., *Trigonella* sp. Ref: 4, 10, 658, 660, 2165, 4692, 4696, 4931, 5000, 5501.

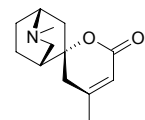


**6438 Dioscoreside C**

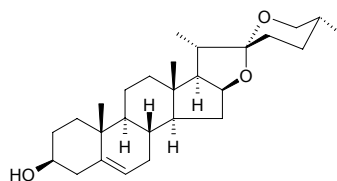
$C_{52}H_{84}O_{22}$  (1061.24). White powder, mp 180~182°C,  $[\alpha]_D^{25} = -54.2^\circ$  ( $c = 0.005$ , pyridine). Source: HUANG SHAN YAO *Dioscorea panthaica*. Ref: 867, 2075.

**6439 Dioscorine**

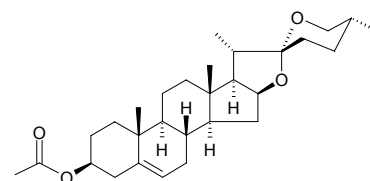
[3329-91-7]  $C_{13}H_{19}NO_2$  (221.30). mp 55°C. Pharm: Anticholinergic (gpg ileum, *in vitro*); enhances action to boost blood pressure caused by adrenalin (anesthetic cat); local anesthetic (gpg, local injection); similar action with cocaine. Source: BAI SHU LANG *Dioscorea hispida*, CU MAO SHU YU *Dioscorea hirsuta*. Ref: 6, 658.

**6440 Diosgenin**

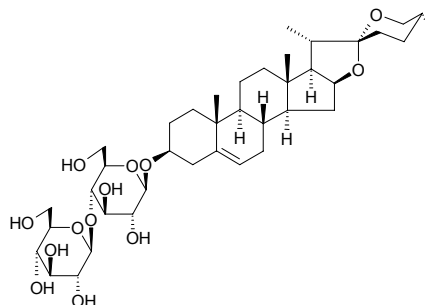
*Dioscorea sapogenin* [512-04-9]  $C_{27}H_{42}O_3$  (414.63). mp 205~206°C; 189~192°C; 196~198°C; 204~205°C; 199~202°C; from moldy source plant, both mp and content of sapogenin decreasing, mp 195~196°C; 176~178°C; 186~194°C; 194~195°C; 180~192°C. Pharm: Estrogenic activity; antihypercholesterolemic (reduces the level of cholesterol in serum). Source: BAI SHU LANG *Dioscorea hispida*, BI XIE *Dioscorea hypoglauca* [Syn. *Dioscorea collettii* var. *hypoglauca*] (dried rhizome: mean content of 3 batch samples = 1.24%<sup>[5508]</sup>), CHA RUI SHU YU *Dioscorea collettii*, CHAI HUANG JIANG *Dioscorea nipponica* ssp. *rosthornii*, CHANG YAO GE CHONG LOU *Paris polyphylla* var. *pseudothibetica* (rhizome: content = 0.83%<sup>[5508]</sup>), CHUAN LONG SHU YU *Dioscorea nipponica* (dried rhizome: content = 1.73%<sup>[5508]</sup>), DUN YE SHU YU *Dioscorea zingiberensis* (dried rhizome: mean content = 2.39%<sup>[5508]</sup>), FANG JI YE BA QIA *Smilax menispermoides*, FU ZHOU SHU YU *Dioscorea futschauensis*, HU LU BA *Trigonella foenum-graecum* (dried ripe seed: mean content of 3 origins = 12.9%<sup>[5508]</sup>), HUANG SHAN YAO *Dioscorea panthaica*, LONG XUE SHU *Dracaena draco* (stem cortex)<sup>[4696]</sup>, MAI DONG *Ophiopogon japonicus* (dried tuberoid: mean content = 0.005%<sup>[5508]</sup>), MIAN BI XIE(I) *Dioscorea septemloba*, QIU YAO GE CHONG LOU *Paris fargesii* (rhizome: content = 1.08%<sup>[5508]</sup>), SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*] (rhizome: content = 0.012%<sup>[5508]</sup>), SHU KUI YE SHU YU *Dioscorea althaeoides*, XIA YE CHONG LOU *Paris polyphylla* var. *stenophylla* (rhizome: content = 0.86%<sup>[5508]</sup>), XIAN XI SHU YU *Dioscorea gracillima*, XIAO HUA DUN YE SHU YU *Dioscorea parviflora*, YUN NAN CHONG LOU *Paris polyphylla* var. *yunnanensis* (rhizome: mean content = 0.94%<sup>[5508]</sup>), ZAO XIU *Paris polyphylla* (rhizome: content = 0.90%<sup>[5508]</sup>), ZHANG LIU TOU *Costus speciosus*, *Paris* sp., *Trillium* sp., *Trigonella* sp. Ref: 10, 658, 660, 4696, 5501, 5508.

**6441 Diosgenin acetate**

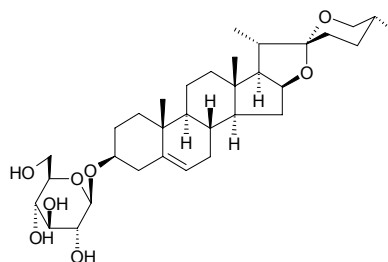
$C_{29}H_{44}O_4$  (456.67). Source: FANG JI YE BA QIA *Smilax menispermoides*, BI XIE *Dioscorea hypoglauca* [Syn. *Dioscorea collettii* var. *hypoglauca*]. Ref: 10, 660.

**6442 Diosgenin-3-di-beta-O-glucopyranoside**

Diosgenin-dioglucoside  $C_{39}H_{62}O_{13}$  (738.92). mp 271~273°C. Source: SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], DUN YE SHU YU *Dioscorea zingiberensis*. Ref: 6, 10.

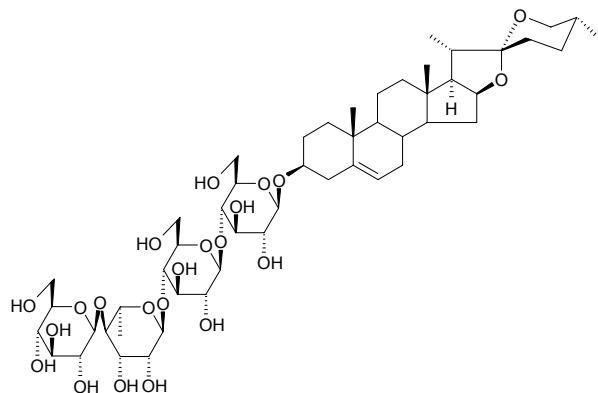
**6443 Diosgenin-3-O-beta-D-glucopyranoside**

Trillin  $C_{33}H_{52}O_8$  (576.78). mp 274°C; 275~280°C. Source: DUN YE SHU YU *Dioscorea zingiberensis*, CHUAN LONG SHU YU *Dioscorea nipponica*, FU ZHOU SHU YU *Dioscorea futschauensis*, YAN LING CAO *Trillium tschonoskii*, ZAO XIU *Paris polyphylla*. Ref: 6, 10, 660.



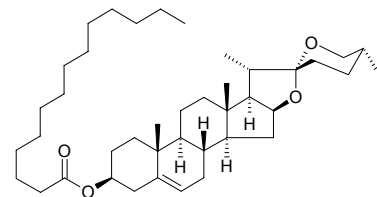
**6444 Diosgenin 3-O- $\beta$ -D-glucopyranosyl (1 $\rightarrow$ 4)- $\alpha$ -L-rhamnopyranosyl (1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl (1 $\rightarrow$ 4)- $\beta$ -D-glucopyranoside**

$C_{51}H_{82}O_{22}$  (1047.21). White powder crystals, mp 229~233°C (des),  $[\alpha]_D = -70.42^\circ$  ( $c = 0.738$ , MeOH). Source: HU LU BA *Trigonella foenum-graecum*. Ref: 4578.



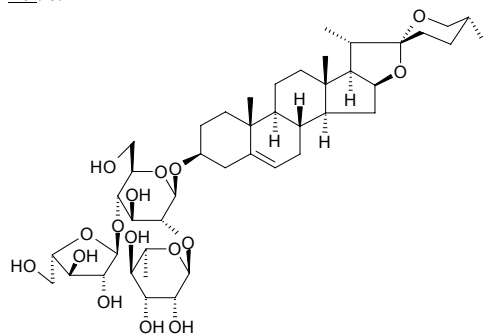
**6445 Diosgenin palmitate**

$C_{43}H_{72}O_4$  (653.05). Source: CHA RUI SHU YU *Dioscorea collettii*, BI XIE *Dioscorea hypoglauca* [Syn. *Dioscorea collettii* var. *hypoglauca*]. Ref: 10, 660.



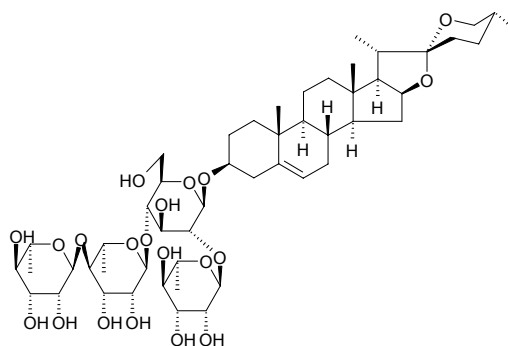
**6446 Diosgenin 3-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-[ $\alpha$ -L-arabinofuranosyl-(1 $\rightarrow$ 4)]- $\beta$ -D-glucopyranoside**

$C_{44}H_{70}O_{16}$  (855.04). mp 276~278°C (dec). Source: ZAO XIU *Paris polyphylla*. Ref: 6.



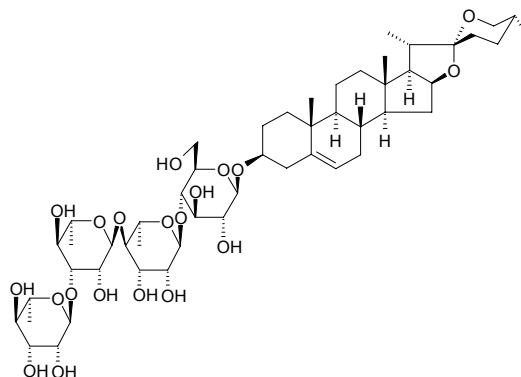
**6447 Diosgenin 3-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)-[ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)]- $\beta$ -D-glucopyranoside**

Diosgenin tetraglycoside  $C_{51}H_{82}O_{20}$  (1015.21). White amorphous powder,  $[\alpha]_D^{20} = -113^\circ$  ( $c = 0.57$ , MeOH); mp 203~206°C (dec). Pharm: Antifungal (hmm pathogenic yeasts *Candida albicans*, MIC = 100  $\mu$ g/mL; *Candida glabrata*, MIC = 200  $\mu$ g/mL; *Candida tropicalis*, MIC > 200  $\mu$ g/mL)<sup>[4931]</sup>; cytotoxic (HSC-2 cells, LD<sub>50</sub> = 2  $\mu$ g/mL; HGF, LD<sub>50</sub> = 2.8  $\mu$ g/mL)<sup>[3023]</sup>. Source: *Dioscorea cayenensis* (rhizome), YE XIANG SHU *Cestrum nocturnum* (leaf: yield = 0.0024%fw), ZAO XIU *Paris polyphylla*. Ref: 4931, 6, 3023.



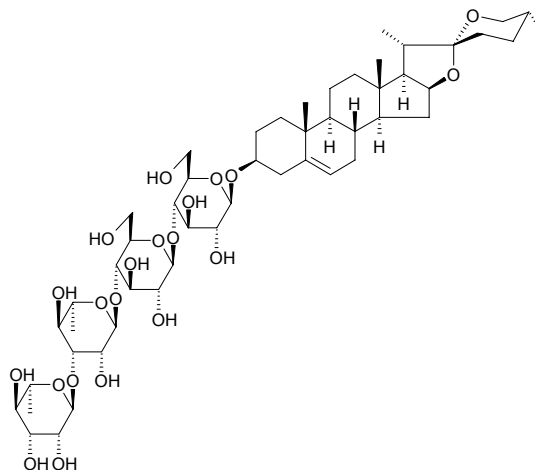
**6448 Diosgenin 3-O-[ $\alpha$ -L-rhamnopyranosyl (1 $\rightarrow$ 3)- $\alpha$ -L-rhamnopyranosyl (1 $\rightarrow$ 4)]- $\beta$ -D-glucopyranoside**

$C_{51}H_{82}O_{20}$  (1015.21). Colorless acicular crystals, mp 216~218°C (dec.),  $[\alpha]_D^{20} = -96.2^\circ$  ( $c = 0.38$ , pyridine), easily solving in pyridine, solving in methanol, ethanol and water. Source: CHUAN LONG SHU YU *Dioscorea nipponica*. Ref: 2227.



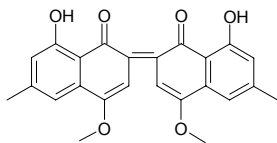
**6449 Diosgenin 3-O- $\alpha$ -L-rhamnopyranosyl (1 $\rightarrow$ 3)- $\alpha$ -L-rhamnopyranosyl (1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl (1 $\rightarrow$ 4)- $\beta$ -D-glucopyranoside**

$C_{51}H_{82}O_{21}$  (1031.21). White granular crystals, mp 196~197°C (des),  $[\alpha]_D^{20} = -78.92^\circ$  ( $c = 0.937$ , MeOH). Source: HU LU BA *Trigonella foenum-graecum*. Ref: 4578.

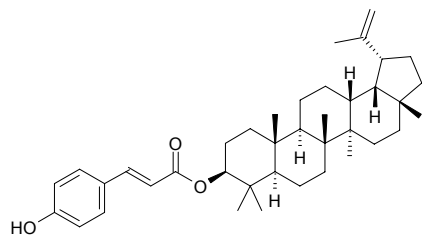


**6450 Diosindigo A**

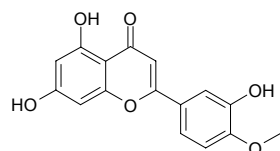
$C_{24}H_{20}O_6$  (404.42). Deep blue needles (petrol ether-chloroform), Source: *Diospyros sylvatica* (root). Ref: 3811.

**6451 Dioslupecin A**

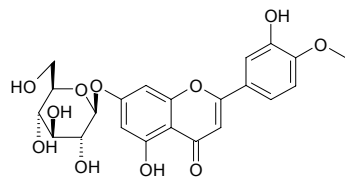
$C_{39}H_{56}O_3$  (572.88). Source: HAI SHI *Diospyros maritima*, XIAO HUA MU LAN GUO *Bruguiera parviflora*. Ref: 1521, 2532.

**6452 Diosmetin**

5,7,3'-Trihydroxy-4'-methoxyflavone [520-34-3]  $C_{16}H_{12}O_6$  (300.27). mp 253–255°C. Pharm: Protects against shock. Source: BAI CI HUA *Sophora viciifolia*, MENG GU SHAN LUO BO *Scabiosa comosa*, RONG MAO DAN SHEN *Salvia tomentosa*, YAO YONG PU GONG YING *Taraxacum officinale*. Ref: 6, 561, 602, 658, 660.

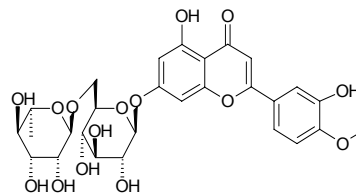
**6453 Diosmetin 7-O-β-D-glucopyranoside**

$C_{22}H_{22}O_{11}$  (462.41). Pharm: Aldose reductase inhibitor (rat lens,  $IC_{50}$  = 23 μmol/L, control Epalrestat,  $IC_{50}$  = 0.072 μmol/L)<sup>[4214]</sup>. Source: YE JU HUA *Chrysanthemum indicum* (flower: yield = 0.086%). Ref: 4214.

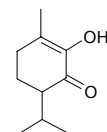
**6454 Diosmin**

[520-27-4]  $C_{28}H_{32}O_{15}$  (608.56). mp 278–280°C. Pharm: Anti-inflammatory (rat, ip, swollen foot model caused by carrageenan,  $ED_{50}$  = 100mg/kg); similar action with vitamin C<sub>2</sub> (gpg, enhances blood capillary resistance and reduces loss of ascorbic acid in adrenal); similar action with vitamin P (rbt, reduces blood capillary permeability);  $LD_{50}$  (mus, orl) = 10g/kg, (mus, ip) = 4g/kg. Source: BA XIAN CAO *Galium aparine*, BAI CI HUA *Sophora viciifolia*, BAI CI HUA YE *Sophora viciifolia*, FEI LONG ZHANG XUE *Toddalia asiatica* [Syn. *Toddalia aculeata*; *Paullinia asiatica*], FO SHOU *Citrus medica* var. *sarcodactylis*, GAO JIA SUO LAN PEN HUA *Scabiosa caucasica*, JI CAI *Capsella bursa-pastoris*, JI CAI ZI *Capsella bursa-pastoris*,

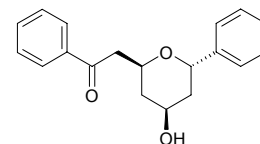
LIN SHENG XUAN SHEN *Scrophularia nodosa*, MI DIE XIANG *Rosmarinus officinalis*, NING MENG *Citrus limon*, NING MENG PI *Citrus limon*, QIAN MA *Urtica cannabina*, RU DI JIN NIU *Zanthoxylum nitidum*, YING BU BO *Zanthoxylum avicennae*. Ref: 6, 658, 660, 5501.

**6455 Diosphenol**

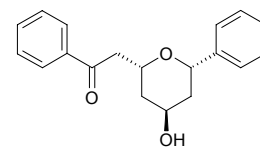
[490-03-9]  $C_{10}H_{16}O_2$  (168.24). Pharm: Diuretic. Source: MI HUA XIANG MAO *Cymbopogon densiflorus*, YU XIANG CAO *Mentha rotundifolia*. Ref: 658.

**6456 Diospongina A**

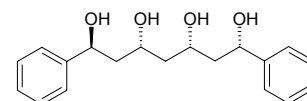
$C_{19}H_{20}O_3$  (296.37). Colorless amorphous solid,  $[\alpha]_D^{25}$  = -21.2° ( $c$  = 0.8, CHCl<sub>3</sub>). Pharm: Bone resorption inhibitor (bones were cultured with PTH 200 μmol/L, <sup>45</sup>Ca release = (44.6±3.3)%, control <sup>45</sup>Ca release = (15.4±1.3)%). Source: HAI JIN BI XIE *Dioscorea spongiosa* (rhizome). Ref: 4921.

**6457 Diospongina B**

$C_{19}H_{20}O_3$  (296.37). Colorless amorphous solid,  $[\alpha]_D^{25}$  = -23.4° ( $c$  = 0.6, CHCl<sub>3</sub>). Pharm: Bone resorption inhibitor (bones were cultured with PTH 200 μmol/L, <sup>45</sup>Ca release = (30.5±0.4)%, contro <sup>45</sup>Ca release = (15.4±1.3)%). Source: HAI JIN BI XIE *Dioscorea spongiosa* (rhizome). Ref: 4921.

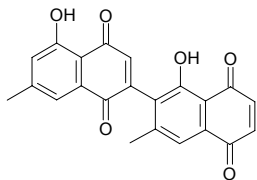
**6458 Diospongina C**

$C_{19}H_{24}O_4$  (316.40). Light yellow oil,  $[\alpha]_D^{25}$  = -45.5° ( $c$  = 0.5, CHCl<sub>3</sub>). Pharm: Bone resorption inhibitor (bones were cultured with PTH 200 μmol/L, <sup>45</sup>Ca release = (19.1±1.6)%,  $p$  < 0.01, control <sup>45</sup>Ca release = (15.4±1.3)%). Source: HAI JIN BI XIE *Dioscorea spongiosa* (rhizome). Ref: 4921.

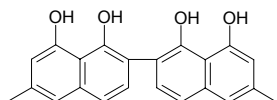


**6459 Diospyrin**

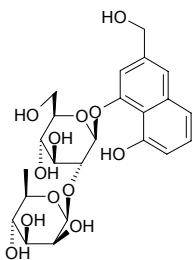
[28164-57-0] C<sub>22</sub>H<sub>14</sub>O<sub>6</sub> (374.35). **Pharm:** Cytotoxic (EAC, high dose); immunoenhancer (low dose). **Source:** *Diospyros* sp. **Ref:** 658.

**6460 Diospyrol**

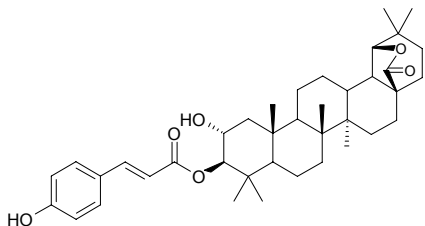
C<sub>22</sub>H<sub>18</sub>O<sub>4</sub> (346.39). Acicular crystals (methanol), mp 251~257°C (dec). **Pharm:** Anthelmintic (hookworm, dwarf tapeworm). **Source:** RUAN SHI *Diospyros mollis* (the compound was isolated from the plant by K.Yoshihira, et al. in 1969)<sup>[5505]</sup>. **Ref:** 661, 5505.

**6461 Diospyrosonaphthoside**

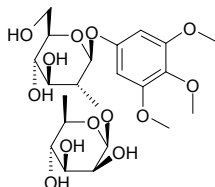
4[ $\alpha$ -L-Rhamnosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyloxy]-2-hydroxymethylene,5-hydroxy naphthalene C<sub>23</sub>H<sub>30</sub>O<sub>12</sub> (498.49). White amorphous powder,  $[\alpha]_D^{27} = -119.0^\circ$  ( $c = 0.17$ , MeOH). **Source:** *Diospyros angustifolia* (stem cortex). **Ref:** 3835.

**6462 Diospyrosoleanolide**

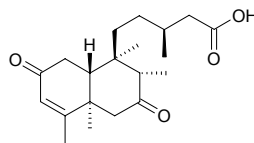
2 $\alpha$ -Hydroxy-3 $\beta$ -trans-p-coumaroyl-28,19 $\beta$ -oleanolide C<sub>39</sub>H<sub>54</sub>O<sub>6</sub> (618.86). White amorphous powder,  $[\alpha]_D^{29} = -16.6^\circ$  ( $c = 0.102$ , C<sub>5</sub>H<sub>5</sub>N). **Source:** *Diospyros angustifolia* (stem cortex). **Ref:** 3835.

**6463 Diospyrososide**

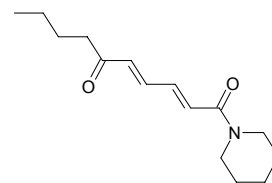
1[ $\alpha$ -L-Rhamnosyl(1 $\rightarrow$ 2)-( $\beta$ -D-glucopyranosyloxy)]-3,4,5-trimethoxy benzene C<sub>21</sub>H<sub>32</sub>O<sub>13</sub> (492.48). White amorphous powder,  $[\alpha]_D^{27} = -80.0^\circ$  ( $c = 0.12$ , MeOH). **Source:** *Diospyros angustifolia* (stem cortex). **Ref:** 3835.

**6464 ent-2,7-Dioxo-3-cleroden-15-oic acid**

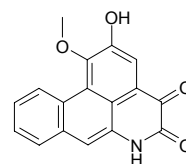
C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). Colorless oil,  $[\alpha]_D^{20} = -10^\circ$  ( $c = 0.215$ , CHCl<sub>3</sub>). **Pharm:** Antimalarial (*Plasmodium falciparum* FcB1, IC<sub>50</sub> = (8.0 $\pm$ 0.2) $\mu$ g/mL, control Chloroquine, IC<sub>50</sub> = (0.05 $\pm$ 0.002) $\mu$ g/mL). **Source:** *Nuxia sphaerocephala* (leaf). **Ref:** 4419.

**6465 1-(1,6-Dioxo-2E,4E-decadienyl)piperidine**

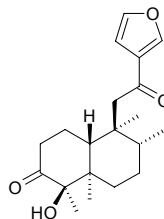
C<sub>15</sub>H<sub>23</sub>NO<sub>2</sub> (249.36). Colorless oil. **Source:** HU JIAO *Piper nigrum* (root: yield = 0.00031%dw). **Ref:** 4753.

**6466 4,5-Dioxodehydroasimilobine**

2-Hydroxy-1-methoxy-4H-dibenzo[de,g]quinoline-4,5-(6H)-dione C<sub>17</sub>H<sub>11</sub>NO<sub>4</sub> (293.28). **Pharm:** Platelet aggregation inhibitor (rbt platelets induced by thrombin, 50 $\mu$ g/mL, add thrombin 0.1u/mL, AggRt = (86.6 $\pm$ 1.6)%, control AggRt = (92.6 $\pm$ 0.4)%; add AA, 100 $\mu$ mol/L, 50 $\mu$ g/mL, AggRt = (0.0 $\pm$ 0.0)%, 2 $\mu$ g/mL, control AggRt = (80.7 $\pm$ 1.7)%, Aspirin 50 $\mu$ g/mL, AggRt = (11.7 $\pm$ 10.1)%; add collagen 10 $\mu$ g/mL, 50 $\mu$ g/mL, AggRt = (25.4 $\pm$ 0.9)%, 2 $\mu$ g/mL, AggRt = (81.5 $\pm$ 0.0)%, control AggRt = (89.3 $\pm$ 0.5)%, Aspirin 100 $\mu$ g/mL, AggRt = (81.3 $\pm$ 0.5)%; add PAF 2ng/mL, 50 $\mu$ g/mL, AggRt = (87.2 $\pm$ 0.0)%, control AggRt = (93.0 $\pm$ 0.6)%<sup>[4938]</sup>. **Source:** MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00037%dw), TAI WAN HU JIAO *Piper taiwanense* (stem). **Ref:** 3026, 4938.

**6467 3,12-Dioxo-15,16-epoxy-4-hydroxy-cleroda-13(16),14-diene**

C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). **Source:** *Croton hovarum*. **Ref:** 4552.

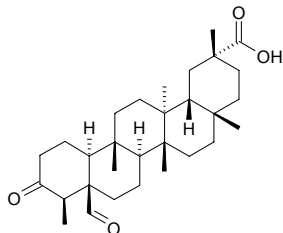




**6468 3,24-Dioxo-friedelan-29-oic acid**

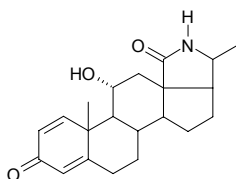
[105249-56-7] C<sub>30</sub>H<sub>46</sub>O<sub>4</sub> (470.70). Colorless acicular crystals, mp 294°C.

Source: LEI GONG TENG *Tripterygium wilfordii*. Ref: 60.

**6469 3,18-Dioxo-11 $\alpha$ -hydroxycona-1,4-diene**

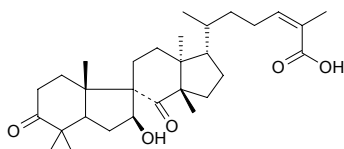
C<sub>21</sub>H<sub>27</sub>NO<sub>3</sub> (341.45). Orange rods (MeOH), mp 130–132°C. Source: DUAN

ROU MAO ZHI XIE MU *Holarrhena pubescens* (bark). Ref: 5231.

**6470 3,8-Dioxo-7 $\beta$ -hydroxy-7,9-cyclo-7,8-seco-24Z-tirucalladien-26-oic acid**

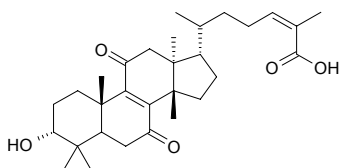
C<sub>30</sub>H<sub>46</sub>O<sub>5</sub> (486.70). Colorless powder, mp 95–98°C, [ $\alpha$ ]<sub>D</sub> = +255.1° (*c* = 1.0,

MeOH). Source: *Juliania adstringens* (bark). Ref: 3786.

**6471 7,11-Dioxo-3 $\alpha$ -hydroxy-8,24Z-tirucalladien-26-oic acid**

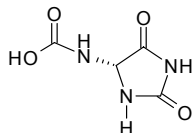
C<sub>30</sub>H<sub>44</sub>O<sub>5</sub> (484.68). Yellow powder, mp 94–95°C, [ $\alpha$ ]<sub>D</sub> = –85.7° (*c* = 1.0,

MeOH). Source: *Juliania adstringens* (bark). Ref: 3786.

**6472 (2,5-Dioxo-4-imidazolidinyl)carbamic acid**

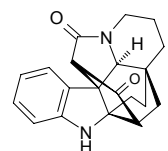
C<sub>4</sub>H<sub>5</sub>O<sub>4</sub>N<sub>3</sub> (159.10). Colorless block crystals, mp 244–246°C. Source: ROU

CONG RONG *Cistanche deserticola*. Ref: 825.

**6473 10,22-Dioxokopsan**

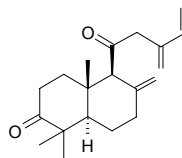
C<sub>20</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub> (320.39). Source: HONG HUA RUI MU *Kopsia fruticosa* (leaf).

Ref: 3830.

**6474 3,11-Dioxo-labda-8(17),13(16),14-triene**

C<sub>20</sub>H<sub>28</sub>O<sub>2</sub> (300.44). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +12.1° (*c* = 2.5, CHCl<sub>3</sub>). Source: YUAN YE TAI

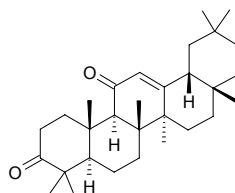
*Jamesoniella colorata*. Ref: 3375.

**6475 3,11-Dioxo-olean-12-ene**

C<sub>30</sub>H<sub>46</sub>O<sub>2</sub> (438.70). White lamellar crystals (acetone), easily soluble in CHCl<sub>3</sub>

and MeOH, mp 232–235°C. Source: SI CHUAN QING FENG TENG *Sabia*

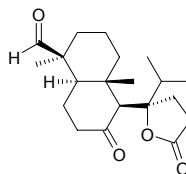
*schumanniana* (aerial parts). Ref: 4883.

**6476 8,19-Dioxo-8,14-seco-chinan-14,11-olide**

C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). Colorless solid, mp 163–164°C, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = –101.5° (*c* = 0.47,

CHCl<sub>3</sub>). Source: LONG BAI *Juniperus chinensis* var. *kaizuka* (leaf: yield =

0.00012%dw). Ref: 3050.

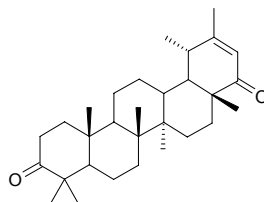
**6477 3,22-Dioxo-20-taraxastene**

C<sub>30</sub>H<sub>46</sub>O<sub>2</sub> (438.70). Colorless solid, mp 245–248°C, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +63.9° (*c* = 0.2,

CHCl<sub>3</sub>). Pharm: Cytotoxic inactive (HONE-1 cell, IC<sub>50</sub> > 10  $\mu$ mol/L; KB cell,

IC<sub>50</sub> > 10  $\mu$ mol/L; HT29 cell, IC<sub>50</sub> > 10  $\mu$ mol/L). Source: RONG SHU *Ficus*

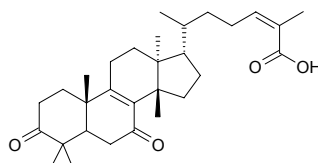
*microcarpa* (aerial root). Ref: 5254.

**6478 3,7-Dioxo-8,24Z-tirucalladien-26-oic acid**

C<sub>30</sub>H<sub>44</sub>O<sub>4</sub> (468.68). Colorless powder, mp 91–93°C, [ $\alpha$ ]<sub>D</sub> = –27.7° (*c* = 1.0,

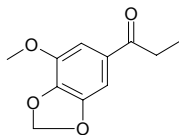
MeOH). Pharm: Cytotoxic (leukemia cells L<sub>1210</sub>, IC<sub>50</sub> = 30  $\mu$ g/mL). Source:

*Juliania adstringens* (bark). Ref: 3786.

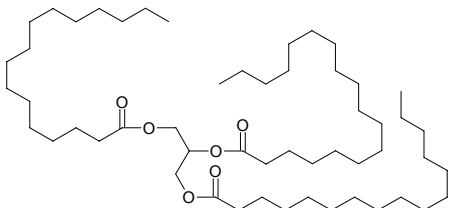


**6479 3,4-Dioxymethylene-5-methoxy-1-(1-oxopropyl)benzene**

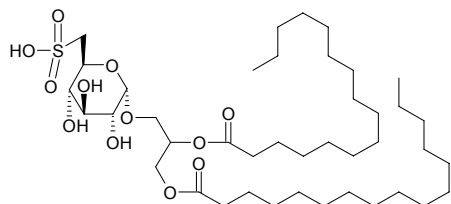
3,4-Methylenedioxy-5-methoxy-1-(1-oxopropyl)benzene C<sub>11</sub>H<sub>12</sub>O<sub>4</sub> (208.22). mp 87–88°C, 91–92°C. Source: SHA QIAN HU *Ferula borealis*. Ref: 6.

**6480 (2S)-1,3-Di-(O-palmitoyl)-2-O-octadecanoyl glycerol**

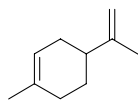
C<sub>53</sub>H<sub>102</sub>O<sub>6</sub> (835.40). Source: XI NANG MA WEI ZAO *Sargassum parvivesiculosum*. Ref: 2591.

**6481 (2S)-1,2-Di-O-palmitoyl-3-O-(6-sulpho-α-D-quinovopyranosyl) glycerol**

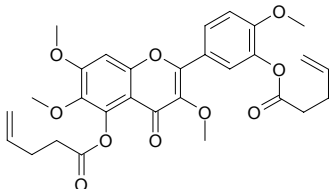
C<sub>41</sub>H<sub>78</sub>O<sub>12</sub>S (795.14). White powder. Source: XI NANG MA WEI ZAO *Sargassum parvivesiculosum*. Ref: 2591.

**6482 Dipentene**

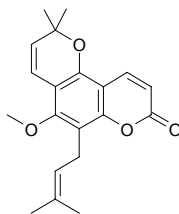
1,8-*p*-Menthadiene [138-86-3] C<sub>10</sub>H<sub>16</sub> (136.24). bp 178°C. Pharm: Antitussive (dispels phlegm); sedative; sensitizer; irritant. Source: DA YE XIANG RU *Mosla dianthera*, FENG XIANG SHU *Liquidambar formosana* [Syn. *Liquidambar taiwaniana*], GANG SONG *Baeckea frutescens*, HAI SONG ZI *Pinus koraiensis*, HU SUI ZI *Coriandrum sativum*, HUI XIANG *Foeniculum vulgare*, KUO YE XIE CAO *Valeriana officinalis* var. *latifolia*, LU DOU LE HUA *Pandanus toctorius*, MO YAO *Commiphora myrrha* [Syn. *Commiphora molmol*], RU XIANG *Boswellia carterii*, YA ER QIN *Cryptotaenia japonica*. Ref: 6, 660.

**6483 5,3'-Dipent-4-enoyloxy-3,6,7,4'-tetramethoxyflavone**

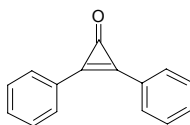
C<sub>29</sub>H<sub>30</sub>O<sub>10</sub> (538.56). mp 155–157°C. Pharm: Cytotoxic (*in vitro*, Col2, ED<sub>50</sub> = 15 μg/mL; hTERT-RPE1, ED<sub>50</sub> = 0.6 μg/mL; HUVEC, ED<sub>50</sub> = 5.5 μg/mL; KB, ED<sub>50</sub> = 0.6 μg/mL; HUVEC, ED<sub>50</sub> = 0.7 μg/mL; Lu1, ED<sub>50</sub> = 1.4 μg/mL). Source: HUANG JING YE *Vitex negundo*. Ref: 4699.

**6484 Dipetaline**

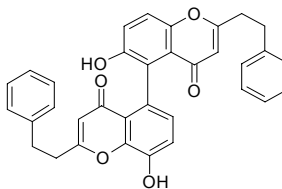
[59701-36-9] C<sub>20</sub>H<sub>22</sub>O<sub>4</sub> (326.40). Pharm: Cytotoxic (inhibits DNA biosynthesis by blocking thymidine to go into HL-60 cells). Source: MEI ZHOU HUA JIAO *Zanthoxylum americanum* [Syn. *Xanthoxylum americanum*]. Ref: 2176.

**6485 2,3-Diphenyl-2-cyclopropen-1-one**

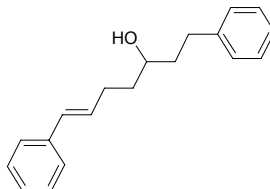
[886-38-4] C<sub>15</sub>H<sub>10</sub>O (206.25). Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref: 2.

**6486 2,2'-Di-(2-phenylethyl)-8,6'-dihydroxy-5,5'-bichromone (AH11)**

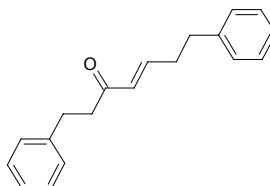
C<sub>34</sub>H<sub>26</sub>O<sub>6</sub> (530.58). Light dark-yellow powder, mp 239–242°C. Source: CHEN XIANG *Aquilaria agallocha*. Ref: 13.

**6487 trans-1,7-Diphenyl-1-hepten-5-ol**

*trans*-1,7-Diphenyl-5-hydroxy-1-heptene [87095-76-9] C<sub>19</sub>H<sub>22</sub>O (266.38). White rhombic crystals (hexane–acetone), mp 47–49°C, [α]<sub>D</sub><sup>20</sup> = +7° (*c* = 1.2, chloroform). Pharm: Anti-inflammatory (swollen foot model caused by carrageenan); nematocide (EC<sub>95</sub> = 0.7 μg/mL). Source: CAO DOU KOU *Alpinia katsumadai*. Ref: 978, 1069, 1151, 1152.

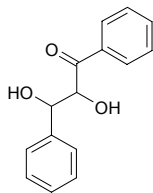
**6488 1,7-Diphenylhept-4-en-3-one**

C<sub>19</sub>H<sub>20</sub>O (264.37). Colorless or yellow oleaginous liquid. Pharm: 5α-Reductase inhibitor (rat prostate 5α-Reductase, IC<sub>50</sub> = (390±30) μmol/L, control Curcumin, IC<sub>50</sub> > 1000 μmol/L, Finasteride, IC<sub>50</sub> = 0.01 μmol/L)<sup>[5345]</sup>. Source: GAO LIANG JIANG *Alpinia officinarum*. Ref: 435, 5345.

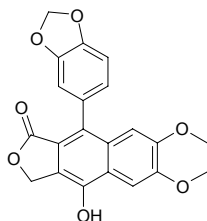


**6489 1,3-Diphenylpropane-1,2-diol-3-one**

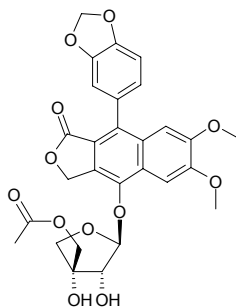
$C_{15}H_{14}O_3$  (242.28). Source: LUO HUA SHENG *Arachis hypogaea*. Ref: 6.

**6490 Diphyllin**

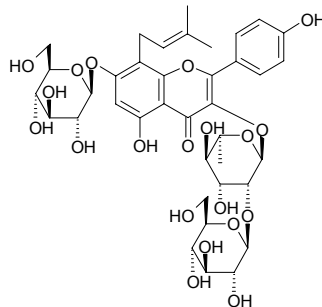
[22055-22-7]  $C_{21}H_{16}O_7$  (380.36). mp 291°C. Pharm: Antineoplastic; cytotoxic (hmn LoVo Cell Line, *in Vitro*,  $IC_{50} = (7.55 \pm 0.75) \mu\text{L/mL}$ )<sup>[4206]</sup>; cytotoxic (*in vitro*, 212,  $ED_{50} = 2.7 \mu\text{g/mL}$ , control *cis*-Platin,  $ED_{50} = 1.3 \mu\text{g/mL}$ ; CaSki, no significant activity, control Actinomycin D,  $ED_{50} = 0.0019 \mu\text{g/mL}$ ; Hep3B,  $ED_{50} = 3.6 \mu\text{g/mL}$ , control 5-FU,  $ED_{50} = 0.0715 \mu\text{g/mL}$ ; SiHa, no significant activity, control Actinomycin D,  $ED_{50} = 0.00081 \mu\text{g/mL}$ ; HepG2,  $ED_{50} = 0.4 \mu\text{g/mL}$ , control 5-FU,  $ED_{50} = 0.033 \mu\text{g/mL}$ ; HT29,  $ED_{50} = 2.5 \mu\text{g/mL}$ , control 5-FU,  $ED_{50} = 0.074 \mu\text{g/mL}$ ; HCT116,  $ED_{50} = 0.8 \mu\text{g/mL}$ , control 5-FU,  $ED_{50} = 0.48 \mu\text{g/mL}$ ; MCF7, no significant activity; MCF7-ras, no significant activity)<sup>[4612]</sup>; piscicide. Source: JUE CHUANG *Rostellularia procumbens* [Syn. *Justicia procumbens*] (whole herb: yield = 0.00024%dw)<sup>[4612]</sup>, SHAN HE YE *Diphylleia grayi* (rhizome: content = 0.064%)<sup>[5508]</sup>, WO ER QI *Diphylleia sinensis* (rhizome: content scope = 0.1%–0.5%, mean content of 8 origins = 0.388%)<sup>[5508]</sup>, *Haplophyllum patavinum* (shoot). Ref: 6, 279, 658, 4206, 4612, 5508.

**6491 Diphyllin acetylapioside**

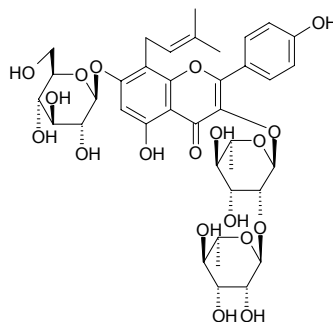
$C_{28}H_{26}O_{12}$  (554.51). Pharm: Anti-inflammatory (5-lipoxygenase inhibitor)<sup>[4415]</sup>. Source: XI BAN YA YUN XIANG CAO *Haplophyllum hispanicum*. Ref: 4415.

**6492 Diphyloside A**

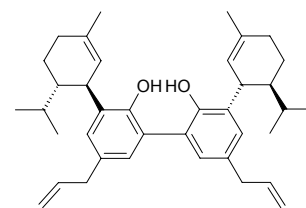
Ikarisoside C [113558-11-5]  $C_{38}H_{48}O_{20}$  (824.79). Yellow powder, mp 204–206°C. Source: CHUAN E YIN YANG HUO *Epimedium fargesii*, CU MAO YIN YANG HUO *Epimedium acuminatum*, WAN SHAN YIN YANG HUO *Epimedium wanshanense*, YIN YANG HUO *Epimedium brevicornum*. Ref: 465, 565, 567, 624.

**6493 Diphyloside B**

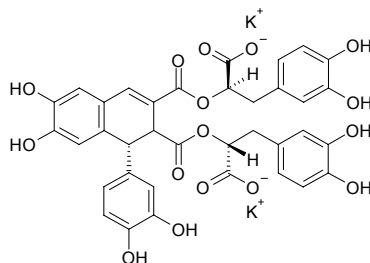
[118544-18-6]  $C_{38}H_{48}O_{19}$  (808.79). Yellow powder, mp 187–189°C. Source: WAN SHAN YIN YANG HUO *Epimedium wanshanense*, CU MAO YIN YANG HUO *Epimedium acuminatum*. Ref: 465, 624.

**6494 Dipiperitylmagnolol**

$C_{38}H_{50}O_2$  (538.82). Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref: 2.

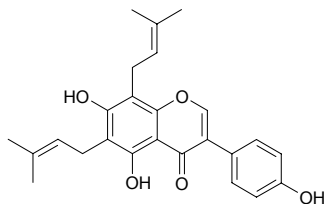
**6495 Dipotassium radosiin**

$C_{36}H_{28}K_2O_{16}$  (794.81). Tan amorphous powder,  $[\alpha]_D^{22} = -113.4^\circ$  ( $c = 0.91$ ,  $H_2O$ ). Pharm: Contraceptive. Source: XIN ZANG JIA ZI CAO *Arnebia euchroma*. Ref: 2187.

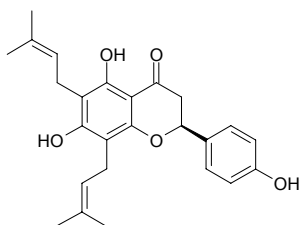


**6496 6,8-Diprenylgenistein**

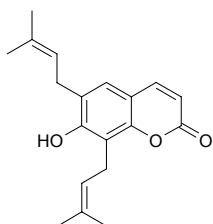
5,7,4'-Trihydroxy-6,8-diprenylisoflavone C<sub>25</sub>H<sub>26</sub>O<sub>5</sub> (406.48). Yellow amorphous. **Pharm:** Antifungal (dermatophyte *Trichophyton mentagrophytes*, 250µg/mL)<sup>[2347]</sup>. **Source:** KU TAN ZI *Millettia pachycarpa*, SAN XIAU YE SHAN DOU GEN *Euchresta japonica*, PAN YUAN YU TENG *Derris scandens*, *Erythrina vogelii*. **Ref:** 1521, 2347, 4421.

**6497 6,8-Diprenylnaringenin**

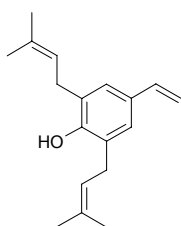
Lonchocarpol A C<sub>25</sub>H<sub>28</sub>O<sub>5</sub> (408.50). **Pharm:** Cytotoxic (cyclooxygenase-2 inhibitor, IC<sub>50</sub> = 3.9µg/mL)<sup>[5038]</sup>, cytotoxic (mouse mammary organ culture assay, 86% at 10µg/mL)<sup>[5038]</sup>. **Source:** PI JIU HUA *Humulus lupulus* (strobile), ZHEN YE XUE TONG *Macaranga confiera*. **Ref:** 4789, 5038.

**6498 6,8-Diprenylumbelliferone**

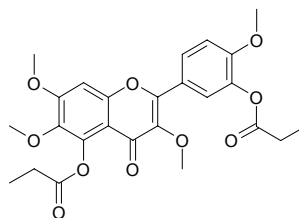
C<sub>19</sub>H<sub>22</sub>O<sub>3</sub> (298.39). **Pharm:** Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500(mol ratio/32pmol TPA): EBV-EA-positive cells = (23.7±1.3)% (viability > 80%), β-Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability = 60%), Curcumin, EBV-EA-positive cells = (22.8±1.8)% (viability > 80%), compound IC<sub>50</sub> = 216(mol ratio/32pmol TPA), β-Carotene, IC<sub>50</sub> = 400(mol ratio/32pmol TPA), Curcumin, IC<sub>50</sub> = 341(mol ratio/32pmol TPA)). **Source:** CHENG ZI *Citrus junos*. **Ref:** 5048.

**6499 2,6-Diprenyl-4-vinylphenol**

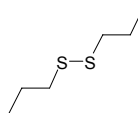
C<sub>18</sub>H<sub>24</sub>O (256.39). Amorphous powder. **Source:** FENG JIAO *Apis mellifera ligustica*. **Ref:** 4124.

**6500 5,3'-Dipropanoyloxy-3,6,7,4'-tetramethoxyflavone**

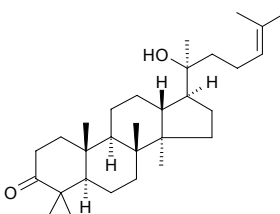
C<sub>25</sub>H<sub>26</sub>O<sub>10</sub> (486.48). mp 131~132°C. **Pharm:** Cytotoxic (*in vitro*, Col2, ED<sub>50</sub> > 20µg/mL; hTERT-RPE1, ED<sub>50</sub> = 0.5µg/mL; HUVEC, ED<sub>50</sub> = 6.5µg/mL; KB, ED<sub>50</sub> = 0.6µg/mL; HUVEC, ED<sub>50</sub> = 0.4µg/mL; Lu1, ED<sub>50</sub> = 1.0µg/mL). **Source:** HUANG JING YE *Vitex negundo*. **Ref:** 4699.

**6501 Dipropyl disulfide**

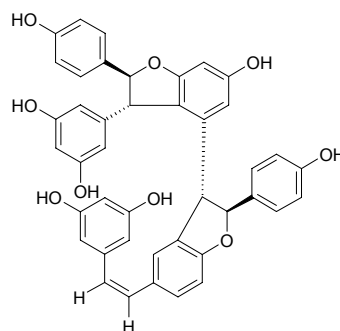
4,5-Dithiooctane [629-19-6] C<sub>6</sub>H<sub>14</sub>S<sub>2</sub> (150.31). Colorless volatile oil with a strong odour of garlic. **Pharm:** Antifungal (plant pathogenic fungi *Cladosporium sphaerospermum*, MIC = 0.1µg, control Nystatin, MIC = 1.0µg; *Cladosporium cladosporioides*, MIC = 1.0µg, control Nystatin, MIC = 1.0µg)<sup>[5159]</sup>; antineoplastic (mechanism-based yeast bioassay for DNA-modifying agents, mutant yeast *Saccharomyces cerevisiae*: RS 188N (rad+), IC<sub>12</sub> = 389µg/mL; RS 321, IC<sub>12</sub> = 68µg/mL; RS 52YK (rad 52Y), IC<sub>12</sub> = 11µg/mL, control Camptothecin, RS 52YK(rad 52Y), IC<sub>12</sub> = 0.6µg/mL)<sup>[5159]</sup>; flavorant. **Source:** SUAN CHOU MU JI CAO *Petiveria alliacea* (root, stem and leaf), DA SUAN *Allium sativum*, *Allium* sp. **Ref:** 2, 658, 5159.

**6502 Dipterocarpol**

[471-69-2] C<sub>30</sub>H<sub>50</sub>O<sub>2</sub> (442.73). **Pharm:** Induces growth of radial root nodule commensal "Frankia". **Source:** RU DU XIANG *Pistacia terebinthus*, BING PIAN *Dryobalanops aromatica*. **Ref:** 2, 658.

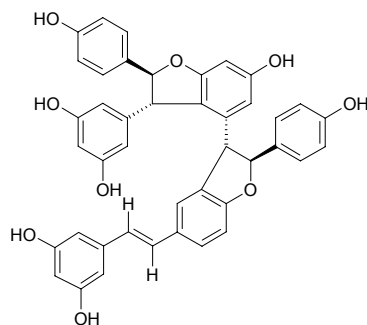
**6503 cis-Diptoindonesin B**

C<sub>42</sub>H<sub>32</sub>O<sub>9</sub> (680.72). White amorphous powder, [α]<sub>D</sub><sup>20</sup> = -99° (c = 0.1, MeOH). **Source:** JU YUAN YE LONG NAO XIANG *Dryobalanops oblongifolia*. **Ref:** 3422.

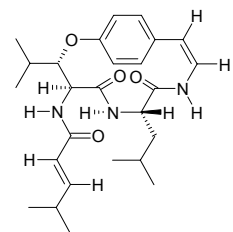


**6504 trans-Diptoindonesin B**

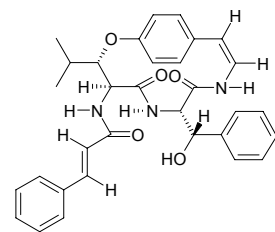
$C_{42}H_{32}O_9$  (680.72). White amorphous powder,  $[\alpha]_D^{20} = -192^\circ$  ( $c = 0.1$ , MeOH). Source: JU YUAN YE LONG NAO XIANG *Dryobalanops oblongifolia*. Ref: 3422.

**6505 Discarine M**

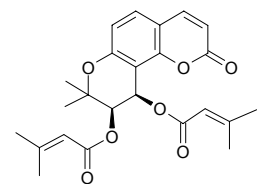
$C_{26}H_{37}N_3O_5$  (455.60). White amorphous powder,  $[\alpha]_D^{20} = -176.7^\circ$  ( $c = 0.2$ , MeOH:CHCl<sub>3</sub> = 1:1). Source: *Discaria americana* (bark). Ref: 3793.

**6506 Discarine N**

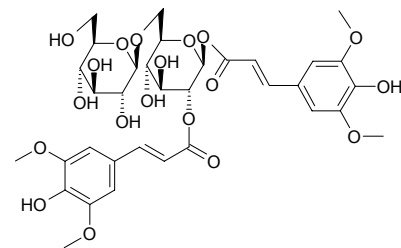
$C_{32}H_{33}N_3O_5$  (539.64). White powder, mp 233~235°C,  $[\alpha]_D^{20} = +98.1^\circ$  ( $c = 0.092$ , MeOH:CHCl<sub>3</sub> = 1:1). Source: *Discaria americana* (bark). Ref: 3793.

**6507 Disenecionyl cis-khellactone**

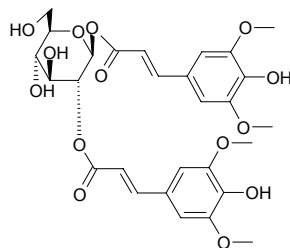
$C_{24}H_{26}O_7$  (426.47). Pharm: Antispasmodic; coronary vasodilator. Source: HUI BAI XIE HAO *Seseli incanum*, LI BA NEN XIE HAO *Seseli libanotis*. Ref: 658.

**6508 1,2-Di-O-E-sinapoyl-β-gentiobiose**

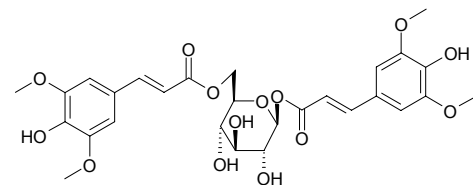
$C_{34}H_{42}O_{19}$  (754.70). Source: OU ZHOU YOU CAI *Brassica napus* (seed). Ref: 5289.

**6509 1,2-Di-O-E-sinapoyl-β-glucopyranose**

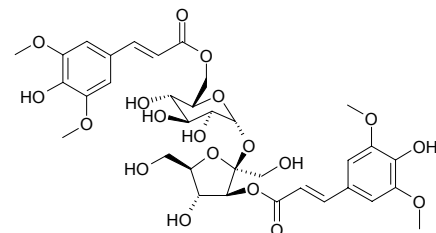
$C_{28}H_{32}O_{14}$  (592.56). Source: OU ZHOU YOU CAI *Brassica napus* (seed). Ref: 5289.

**6510 1,6-Di-O-sinapoylglucose**

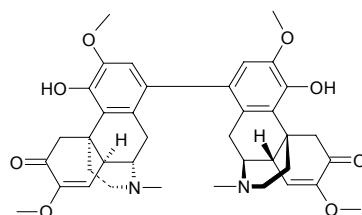
1,6-Di-O-E-sinapoyl-β-glucopyranose  $C_{28}H_{32}O_{14}$  (592.56). Source: OU ZHOU YOU CAI *Brassica napus* (seed). Ref: 5289.

**6511 3',6'-Disinapoylsucrose**

$C_{34}H_{42}O_{19}$  (754.7). Yellow prisms, mp 133~135° (MeOH). Source: CHOU CAO *Ruta graveolens* (dried aerial parts). Ref: 3073.

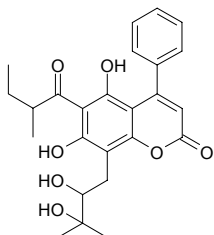
**6512 Disinomenine**

[596-58-7]  $C_{38}H_{44}N_2O_8$  (656.78). mp 222°C. Source: BIAN FU GE *Menispermum dauricum*, QING FENG TENG *Sinomenium acutum*. Ref: 6.

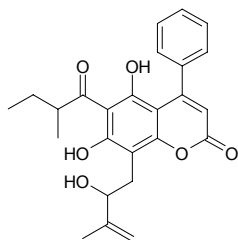


**6513 Dispardiol B**

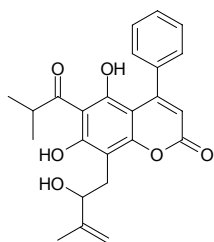
5,7-Dihydroxy-8-(2,3-dihydroxy-3-methylbutyl)-6-(2-methyl-1-oxobutyl)-4-phenyl-2*H*-[1]benzopyran-2-one C<sub>25</sub>H<sub>28</sub>O<sub>7</sub> (440.50). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = 0° (*c* = 0.08, CHCl<sub>3</sub>). **Source:** BU DENG HONG HOU KE *Calophyllum dispar* (fruit and stem cortex). **Ref:** 5196.

**6514 Disparinol B**

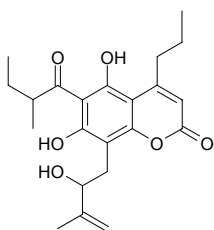
C<sub>25</sub>H<sub>26</sub>O<sub>6</sub> (422.48). **Pharm:** Cytotoxic (KB, EC<sub>50</sub> = 7 μg/mL). **Source:** BU DENG HONG HOU KE *Calophyllum dispar* (fruit and stem cortex). **Ref:** 5196.

**6515 Disparinol D**

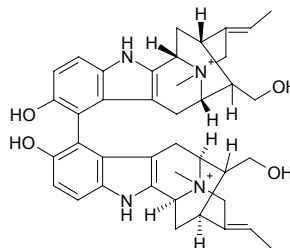
5,7-Dihydroxy-8-(2-hydroxy-3-methylbut-3-enyl)-6-(2-methyl-1-oxopropyl)-4-phenyl-2*H*-[1]benzopyran-2-one C<sub>24</sub>H<sub>24</sub>O<sub>6</sub> (408.46). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = 0° (*c* = 0.16, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (KB, EC<sub>50</sub> = 21 μg/mL). **Source:** BU DENG HONG HOU KE *Calophyllum dispar* (fruit and stem cortex). **Ref:** 5196.

**6516 Disparpropylinol B**

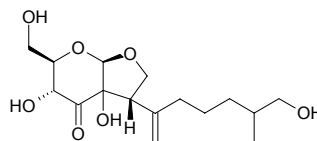
5,7-Dihydroxy-8-(2-hydroxy-3-methylbut-3-enyl)-6-(2-methyl-1-oxobutyl)-4-propyl-2*H*-[1]benzopyran-2-one C<sub>22</sub>H<sub>28</sub>O<sub>6</sub> (388.46). Yellow crystals, mp 111~112°C (*n*-hexane:EtOAc = 9:1), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = 0° (*c* = 0.6, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (KB, EC<sub>50</sub> = 4 μg/mL). **Source:** BU DENG HONG HOU KE *Calophyllum dispar* (fruit and stem cortex). **Ref:** 5196.

**6517 Dispegatrine**

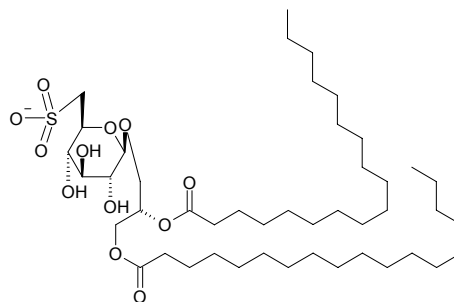
[102488-56-2] C<sub>40</sub>H<sub>48</sub>N<sub>4</sub>O<sub>4</sub><sup>2+</sup> (648.85). Colorless square crystals, mp > 280°C (dec), [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +230° (*c* = 0.1, methanol). **Pharm:** Adrenergic  $\alpha$ -receptor blocker. **Source:** HAI NAN LUO FU MU *Rauvolfia verticillata* var. *hainanensis*. **Ref:** 46.

**6518 Dissectol A**

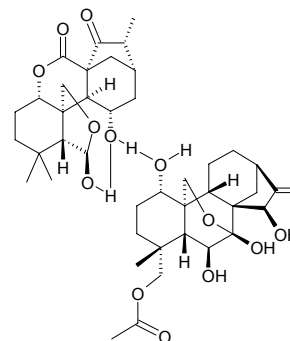
C<sub>16</sub>H<sub>26</sub>O<sub>7</sub> (330.38). Syrup, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = +125.0° (*c* = 2.0, MeOH). **Pharm:** Antitubercular (*Mycobacterium tuberculosis*, showed modest activity when compared to rifampicin in an agar diffusion assay). **Source:** SHEN LIE YE JIAO HAO *Incarvillea dissectifoliola*. **Ref:** 5403.

**6519 (2*S*)-1,2-Distearoyl-3-*O*-(6-sulpho- $\alpha$ -*D*-quinovopyranosyl)-glycerol**

C<sub>45</sub>H<sub>85</sub>O<sub>12</sub>S<sup>-</sup> (850.24). **Source:** KA SHI QIAN GOU ZAO *Amphidinium carterae*. **Ref:** 4448.

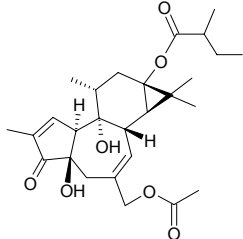
**6520 Diterp-Complex-RA**

C<sub>42</sub>H<sub>60</sub>O<sub>13</sub> (772.94). mp 213~215°C, [ $\alpha$ ]<sub>D</sub> = -46.5° (*c* = 0.16, MeOH). **Source:** XIA YE XIANG CHA CAI *Isodon angustifolia*. **Ref:** 4067.

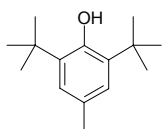


**6521 Diterpenoid EF-D**

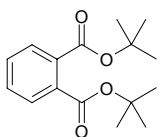
$C_{27}H_{38}O_7$  (474.60). **Pharm:** Irritant (to skin). **Source:** NONG DA JI *Euphorbia fortissima*. **Ref:** 658.

**6522 2,6-Ditertbutyl-4-methyl phenol**

[128-37-0]  $C_{15}H_{24}O$  (220.36). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], XI YANG SHEN *Panax quinquefolium*. **Ref:** 2.

**6523 Ditertbutyl phthalate**

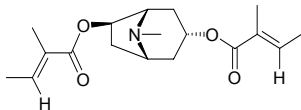
$C_{16}H_{22}O_4$  (278.35). **Source:** SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2.

**6524 Dithiocyclopentene**

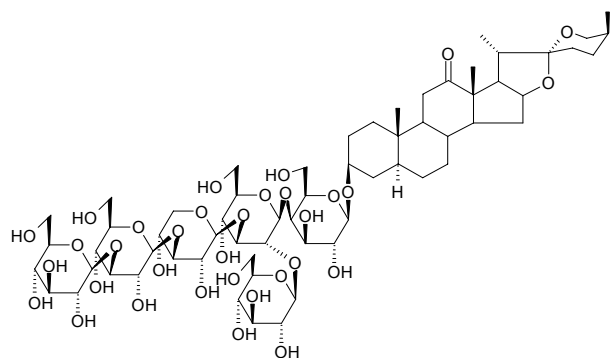
$C_3H_4S_2$  (104.19). **Source:** DA SUAN *Allium sativum*. **Ref:** 2.

**6525 L-3α,6β-Ditigloyloxytropane**

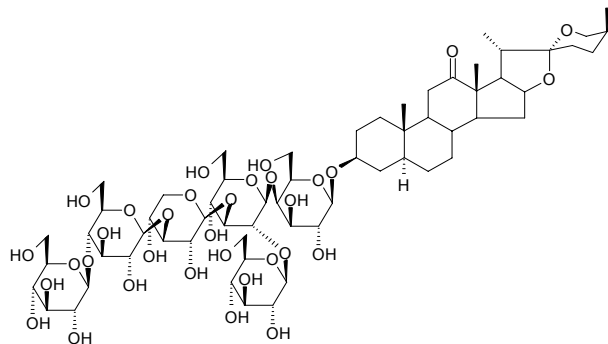
[23517-33-1]  $C_{18}H_{27}NO_4$  (321.42). **Source:** MAO MAN TUO LUO GEN *Datura innoxia*. **Ref:** 6, 660.

**6526 Diuranthoside F**

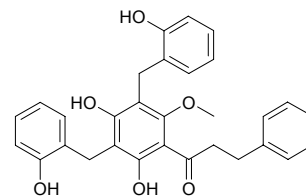
$C_{62}H_{100}O_{33}$  (1373.47). White powder. **Source:** NAN CHUAN LU SI CAO *Diuranthera inarticulata*. **Ref:** 2122.

**6527 Diuranthoside G**

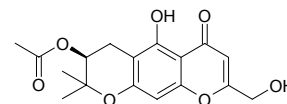
$C_{62}H_{100}O_{33}$  (1373.47). White powder. **Source:** NAN CHUAN LU SI CAO *Diuranthera inarticulata*. **Ref:** 2122.

**6528 Diuaretin**

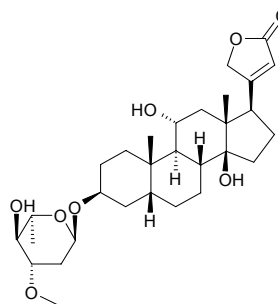
$C_{30}H_{28}O_6$  (484.55). Colorless crystals, mp 127~131°C (CHCl<sub>3</sub>). **Pharm:** Cytotoxic (hmn promyelocytic leukemia HL-60 cells, IC<sub>50</sub> = 6.1 μmol/L). **Source:** JIAN ZI YU PAN *Uvaria acuminata* (root). **Ref:** 4261.

**6529 Divaricatol**

$C_{17}H_{18}O_7$  (334.33). White crystalline powder, mp 168~171°C,  $[\alpha]_{589nm} = -30^\circ$ . **Pharm:** Analgesic (mus writhing method, orl, 1 mg/kg). **Source:** FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebourriella seseloides*]. **Ref:** 3508.

**6530 Divaricoside**

Sarmentogenin 3-O-α-oleandroside  $C_{30}H_{46}O_8$  (534.70). mp 220~223°C. **Pharm:** Cardiotonic (one of main components in divasides). **Source:** YANG JIAO AO ZI *Strophanthus divaricatus*. **Ref:** 4, 6, 658.

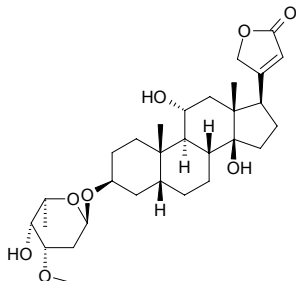
**6531 Divinyl sulfide**

Vinyl sulfide [627-51-0]  $C_4H_6S$  (86.16). **Source:** DA SUAN *Allium sativum*. **Ref:** 2.

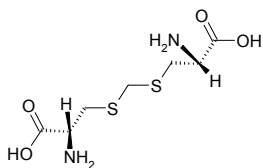


**6532 Divostroside**

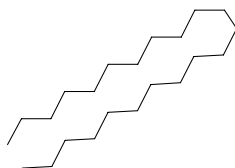
Sarmentogenin 3-*O*- $\alpha$ -*L*-diginoside C<sub>30</sub>H<sub>46</sub>O<sub>8</sub> (534.70). mp 225~231°C. **Pharm:** Toxin (vertebrate). **Source:** YANG JIAO AO ZI *Strophanthus divaricatus*. **Ref:** 6, 658.

**6533 L-Djenkolic acid**

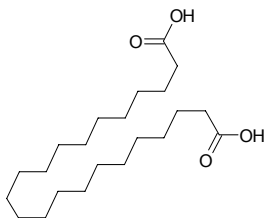
C<sub>7</sub>H<sub>14</sub>N<sub>2</sub>O<sub>4</sub>S<sub>2</sub> (254.33). **Pharm:** Toxin. **Source:** YU ZHUANG HE HUAN *Albizia lophantha*, *Mimosa* sp., *Acacia* sp. **Ref:** 658.

**6534 Docosane**

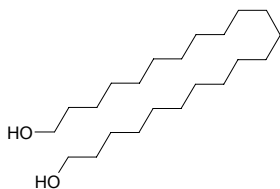
[629-97-0] C<sub>22</sub>H<sub>46</sub> (310.61). **Source:** DANG SHEN *Codonopsis pilosula*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2.

**6535 Docosanedioic acid**

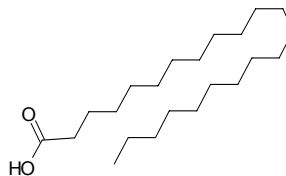
[505-56-6] C<sub>22</sub>H<sub>42</sub>O<sub>4</sub> (370.58). mp 124.2~124.4°C. **Source:** LIN BEI ZI *Toxicodendron succedaneum* [Syn. *Rhus succedanea*], QI ZI *Rhus verniciflua* [Syn. *Toxicodendron verniciflum*]. **Ref:** 6.

**6536 1,22-Docosanediol**

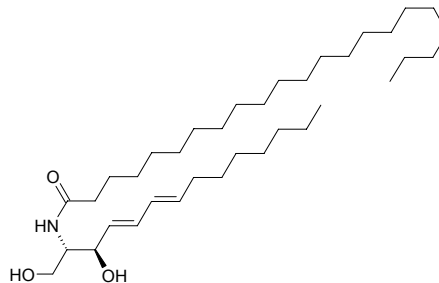
[22513-81-1] C<sub>22</sub>H<sub>46</sub>O<sub>2</sub> (342.61). **Source:** MU JIN PI *Hibiscus syriacus*. **Ref:** 519.

**6537 Docosanoic acid**

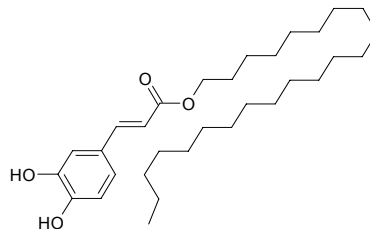
[112-85-6] C<sub>22</sub>H<sub>44</sub>O<sub>2</sub> (340.59). **Source:** BU GU ZHI *Psoralea corylifolia*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], GUANG JING QIAN CAO *Rubia wallichiana* (stem), QIANG HUO *Notopterygium incisum*, WU SE MEI *Lantana camara* (aerial parts). **Ref:** 2, 4309, 4369.

**6538 (4E,6E,2S,3R)-2-N-Docosanoyl-4,6-tetradecasphingadienine**

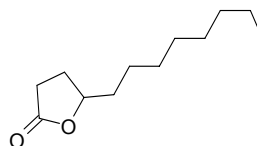
C<sub>36</sub>H<sub>69</sub>NO<sub>3</sub> (563.96). White powder; mp 71.8°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -3.6° (c = 0.176, CHCl<sub>3</sub>). **Pharm:** Neurotrophic (neurite outgrowth promoter, measuring neurite length of PC12 cell, 10 $\mu$ mol/L, activity greater than that of 50ng/mL NGF). **Source:** BAI JIANG CAN *Bombyx mori*. **Ref:** 4684.

**6539 Docosyl caffeate**

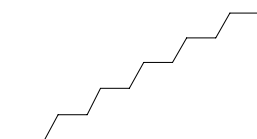
C<sub>31</sub>H<sub>52</sub>O<sub>4</sub> (488.76). mp 115°C. **Source:** SHAN DOU GEN *Sophora subprostrata* [Syn. *Sophora tonkinensis*], ZI CAO *Lithospermum erythrorhizon*. **Ref:** 6, 408, 2193.

**6540  $\gamma$ -Dodecalactone**

[2305-05-7] C<sub>12</sub>H<sub>22</sub>O<sub>2</sub> (198.31). **Source:** XING REN *Prunus armeniaca*. **Ref:** 2.

**6541 Dodecane**

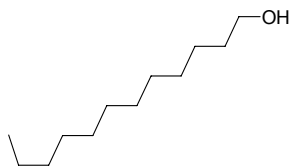
[112-40-3] C<sub>12</sub>H<sub>26</sub> (170.34). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], XI YANG SHEN *Panax quinquefolium*, LANG DU *Stellera chamaejasme*. **Ref:** 2, 660.



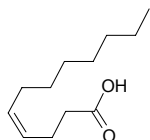


**6542 Dodecanol**

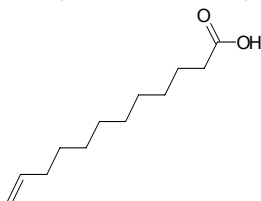
[112-53-8] C<sub>12</sub>H<sub>26</sub>O (186.34). Source: DANG GUI *Angelica sinensis*. Ref: 2.

**6543 cis-4-Dodecenoic acid**

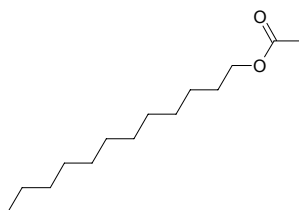
Linderic acid [2430-94-6] C<sub>12</sub>H<sub>22</sub>O<sub>2</sub> (198.31). mp 1.0~1.3°C, bp 170~172°C/13mmHg. Source: ZHEN CAI *Litsea pungens*. Ref: 6.

**6544 Dodecenoic acid**

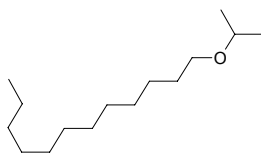
C<sub>12</sub>H<sub>22</sub>O<sub>2</sub> (198.31). bp 165~168°C/8mmHg. Source: BING LANG *Areca catechu*, FU LING *Poria cocos*, YANG RU *Capra hircus*; *Ovis aries*. Ref: 2, 6.

**6545 n-Dodecyl acetate**

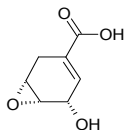
[112-66-3] C<sub>14</sub>H<sub>28</sub>O<sub>2</sub> (228.38). bp 150.5~151.5°C/15mmHg. Source: HEI MA YI *Formica fusca*. Ref: 6.

**6546 Dodecyl isopropyl ether**

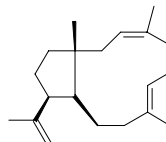
C<sub>15</sub>H<sub>32</sub>O (228.42). Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref: 2.

**6547 Doederleinic acid**

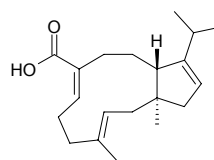
7(β)-Oxa-bicyclo-[4,1,0]-hept-3-ene-3-carboxylic acid-5(β)-hydroxy C<sub>7</sub>H<sub>8</sub>O<sub>4</sub> (156.14). White granular powder, mp 185~186°C, [α]<sub>D</sub><sup>10</sup> = -13.8° (c = 0.2, EtOH). Source: DA YE CAI *Selaginella doederleinii*. Ref: 484.

**6548 (-)-Dolabella-3,7,18-triene**

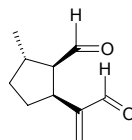
C<sub>20</sub>H<sub>32</sub> (272.48). Source: KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides* (essential oil). Ref: 5129.

**6549 Dolabeserpenoic acid A**

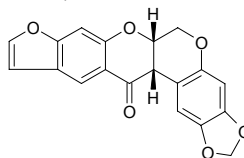
(3E,7Z)-Dollabella-3,7,12-trien-17-oic acid C<sub>20</sub>H<sub>30</sub>O<sub>2</sub> (302.46). Amorphous powder. [α]<sub>D</sub> = -32.1° (c = 1.5, CHCl<sub>3</sub>). Pharm: Antifungal. Source: PU FU QIANG DAO YAO *Hypoestes serpens*. Ref: 2063.

**6550 Dolichodial**

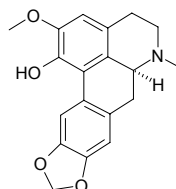
[5951-57-5] C<sub>10</sub>H<sub>14</sub>O<sub>2</sub> (166.22). Pharm: Anthelmintic; lacrimator. Source: MA SHI XIANG KE KE *Teucrium marum*. Ref: 658.

**6551 Dolineone**

[10065-28-8] C<sub>19</sub>H<sub>12</sub>O<sub>6</sub> (336.30). mp 233~235°C. Pharm: Antiviral (HSV-1, 50μg/mL, InRt = 15.4%; HSV-2, 50μg/mL, InRt = 24.4%). Source: DI GUA ZI *Pachyrhizus erosus*, DOU SHU *Pachyrhizus erosus* (seed). Ref: 6, 4180.

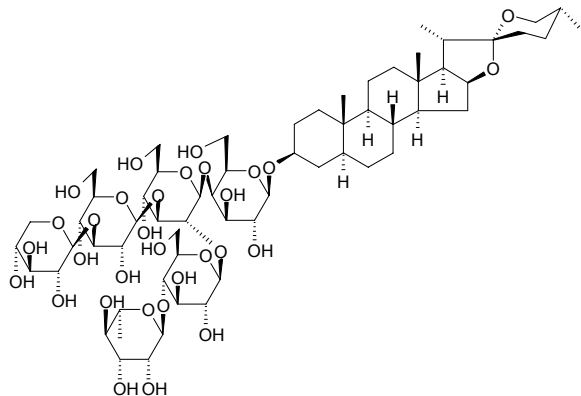
**6552 Domesticine**

[476-71-1] C<sub>19</sub>H<sub>19</sub>NO<sub>4</sub> (325.37). mp 115~117°C. Pharm: Convulsant (high dose, warm-blooded animal such as dog); inhibits CNS with activity similar to that of morphine (poikilotherm such as frog); inhibits heart (rbt and frog, *in vitro*); reduces intestinal vessel tension (gpg, *in vitro*); mild anesthetic (low dose, warm-blooded animal such as mus or dog); paralyzes striated muscle; paralyzes uterus (high dose, rbt, *in vitro*); uterine stimulant (low dose, rbt, *in vitro*); rises intestinal vessel tension (gpg, *in vivo*). Source: GE CAI KE SHI ZI JIN *Corydalis gortschakovii*, JIAN JU ZI JIN *Corydalis suaveolens* [Syn. *Corydalis sheareri*], NAN TIAN ZHU GEN *Nandina domestica*, NAN TIAN ZHU GENG *Nandina domestica*, NAN TIAN ZHU ZI *Nandina domestica*. Ref: 4, 6, 658.

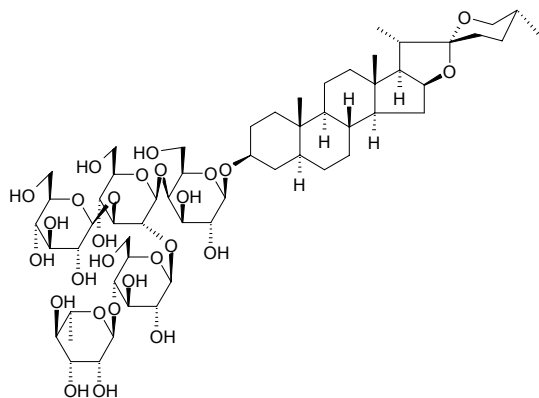


**6553 Dongnoside A**

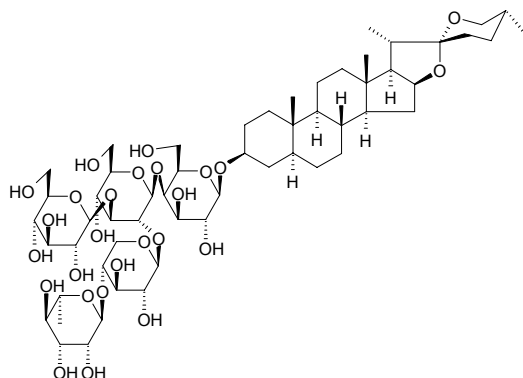
3-*O*-[ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-galactopyranoside] [149664-94-8] C<sub>62</sub>H<sub>102</sub>O<sub>31</sub> (1343.49). mp 265~270°C, [ $\alpha$ ]<sub>D</sub> = -51.5°. Source: DONG YI HAO JIAN MA *Agave east-one*. Ref: 2503.

**6554 Dongnoside B**

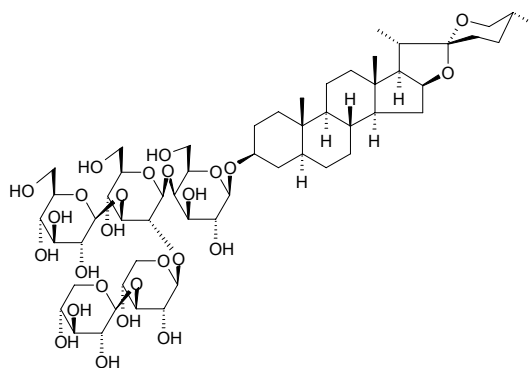
3-*O*-[ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-galactopyranoside] [149664-93-7] C<sub>57</sub>H<sub>94</sub>O<sub>27</sub> (1211.37). mp 275~277°C, [ $\alpha$ ]<sub>D</sub> = -50.8°. Source: DONG YI HAO JIAN MA *Agave east-one*. Ref: 2503.

**6555 Dongnoside C**

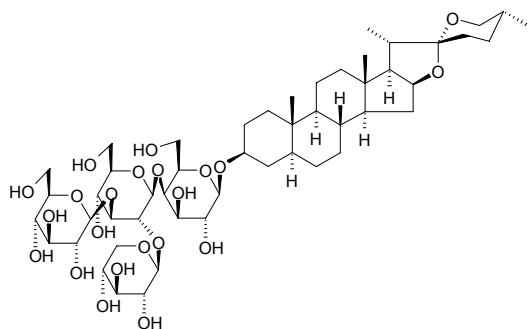
3-*O*-[ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-galactopyranoside] [125265-73-8] C<sub>56</sub>H<sub>92</sub>O<sub>26</sub> (1181.34). Source: DONG YI HAO JIAN MA *Agave east-one*. Ref: 10.

**6556 Dongnoside D**

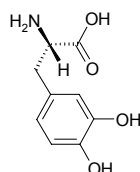
3-*O*-[ $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 2)]- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-galactopyranoside] [125288-52-0] C<sub>55</sub>H<sub>90</sub>O<sub>26</sub> (1167.31). Source: DONG YI HAO JIAN MA *Agave east-one*. Ref: 10.

**6557 Dongnoside E**

3-*O*-[ $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 2)]- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-galactopyranoside] [125265-72-7] C<sub>50</sub>H<sub>82</sub>O<sub>22</sub> (1035.20). Source: DONG YI HAO JIAN MA *Agave east-one*. Ref: 10.

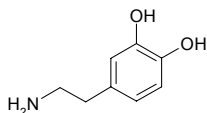
**6558 Dopa**

*L*-3,4-Dihydroxyphenylalanine [59-92-7] C<sub>9</sub>H<sub>11</sub>NO<sub>4</sub> (197.19). mp (-) 283°C, ( $\pm$ ) 271~272°C (dec). Pharm: Precursor to biosynthesis of arterenol and dopamine; LD<sub>50</sub> (mus, orl) = 3650mg/kg, (rat, orl)  $\geq$  4000mg/kg, (rbt, orl) = 609mg/kg. Source: CAN DOU *Vicia faba*, MAO DOU *Mucuna cochinchinensis*, CHANG CHUN YOU MA TENG *Mucuna sempervirens*, BAI HUA YOU MA TENG *Mucuna birdwoodiana*, LI DOU *Stizolobium capitatum*, CAN DOU YE *Vicia faba*, CAN DOU JIA KE *Vicia faba*, MA CHI XIAN *Portulaca oleracea*, XU SUI ZI JING ZHONG BAI ZHI *Euphorbia lathyris*, *Lupinus* sp. Ref: 6, 658.

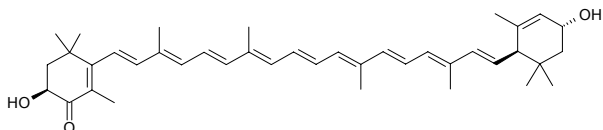


**6559 Dopamine**

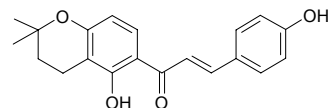
4-(2-Aminoethyl)pyrocatechol [51-61-6]  $C_8H_{11}NO_2$  (153.18). **Pharm:** Enhances myocardial contractility and increases blood flow; improves peripheral circulation and markedly increases amount of urine; neurotransmitter (in adrenal medulla and brain); Precursor to biosynthesis of adrenalin. **Source:** AN LU LONG SHE LAN *Lophophora williamsii*, JIN QUE ER *Cytisus scoparius* [Syn. *Spartium scoparium*], MA CHI XIAN *Portulaca oleracea*, SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], XIANG JIAO *Musa paradisiaca* var. *sapientum* [Syn. *Musa sapientum*]. **Ref:** 2, 6, 658.

**6560 Doradexanthin**

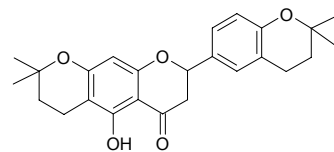
4-Ketolutein [29125-77-7]  $C_{40}H_{54}O_3$  (582.87). **Source:** LI YU PI *Cyprinus carpio*, JIN YU *Carassius auratus*. **Ref:** 6, 660.

**6561 Dorsmanin A**

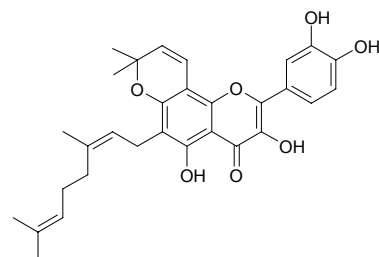
$C_{20}H_{20}O_4$  (324.38). **Source:** MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). **Ref:** 5116.

**6562 Dorsmanin B**

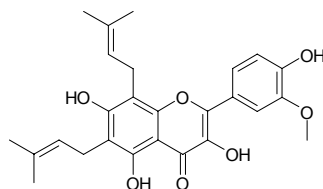
$C_{25}H_{28}O_5$  (408.50). **Source:** MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). **Ref:** 5116.

**6563 Dorsmanin C**

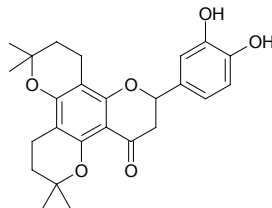
$C_{30}H_{32}O_7$  (504.59). **Source:** MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). **Ref:** 5116.

**6564 Dorsmanin D**

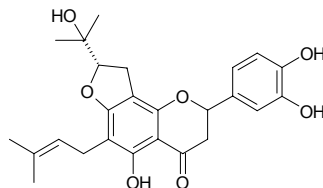
$C_{26}H_{28}O_7$  (452.51). **Source:** MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). **Ref:** 5116.

**6565 Dorsmanin E**

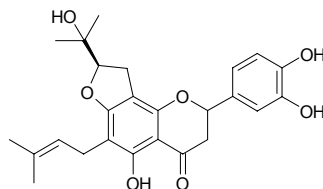
$C_{25}H_{28}O_6$  (424.50). **Source:** MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). **Ref:** 5116.

**6566 Dorsmanin Fa**

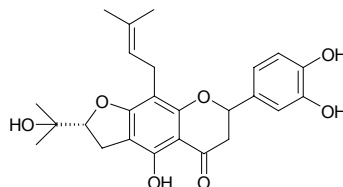
2''-Epidorsmanin Fa  $C_{25}H_{28}O_7$  (440.50). Beige plates ( $CH_2Cl_2$ ), mp 168–170°C. **Source:** MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). **Ref:** 5116.

**6567 Dorsmanin Fb**

2''-Epidorsmanin Fb  $C_{25}H_{28}O_7$  (440.50). Beige plates ( $CH_2Cl_2$ ), mp 168–170°C. **Source:** MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). **Ref:** 5116.

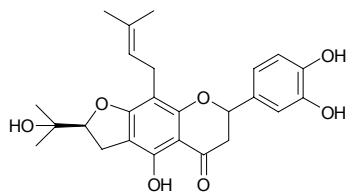
**6568 Dorsmanin Ga**

2''-Epidorsmanin Ga  $C_{25}H_{28}O_7$  (440.50). Colorless powder, mp 148–150°C. **Source:** MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). **Ref:** 5116.

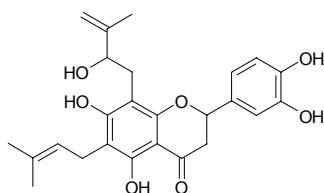


**6569 Dorsmanin Gb**

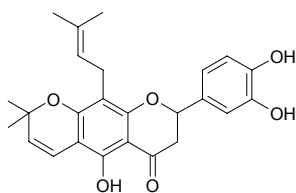
2"-Epidorsmanin Gb C<sub>25</sub>H<sub>28</sub>O<sub>7</sub> (440.50). Colorless powder, mp 148–150°C.  
 Source: MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). Ref: 5116.

**6570 Dorsmanin H**

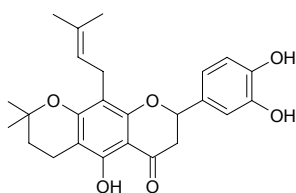
C<sub>25</sub>H<sub>28</sub>O<sub>7</sub> (440.50). Source: MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). Ref: 5116.

**6571 Dorsmanin I**

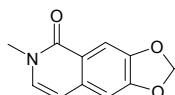
6,7-(2,2-Dimethylpyrano)-8-prenyl-5,3',4'-trihydroxyflavanone C<sub>25</sub>H<sub>26</sub>O<sub>6</sub> (422.48). Yellow plates (hexane-EtOAc), mp 172–174°C, [α]<sub>D</sub><sup>20</sup> = -27° (c = 0.12, MeOH). Source: MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). Ref: 5116.

**6572 Dorsmanin J**

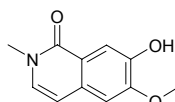
6,7-(2,2-Dimethylidihydropyrano)-8-prenyl-5,3',4'-trihydroxyflavanone C<sub>25</sub>H<sub>28</sub>O<sub>6</sub> (424.50). Brown gum, [α]<sub>D</sub><sup>20</sup> = -17° (c = 0.17, MeOH). Source: MAN NI DUO TAN CAO *Dorstenia mannii* (aerial parts). Ref: 5116.

**6573 Doryanine**

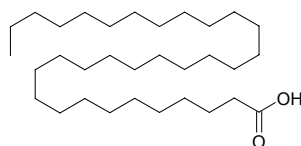
C<sub>11</sub>H<sub>9</sub>NO<sub>3</sub> (203.20). Source: HOU KE GUI *Cryptocarya chinensis* (wood). Ref: 3092.

**6574 Doryphornine**

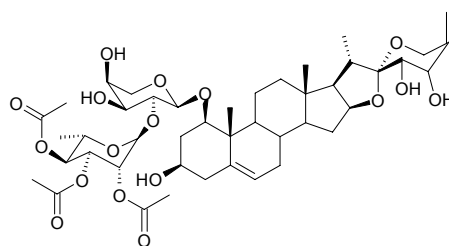
C<sub>11</sub>H<sub>11</sub>NO<sub>3</sub> (205.22). Source: BIAN FU GE GEN *Menispermum dauricum*, *Doryphora sassafras* (bark). Ref: 1521, 3792.

**6575 Dotriacontanic acid**

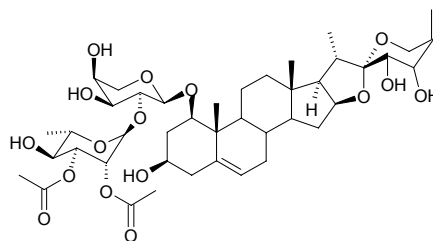
[3625-52-3] C<sub>32</sub>H<sub>64</sub>O<sub>2</sub> (480.87). Source: HUI BAO HAO *Artemisia roxbugiana*. Ref: 503.

**6576 DraconinA**

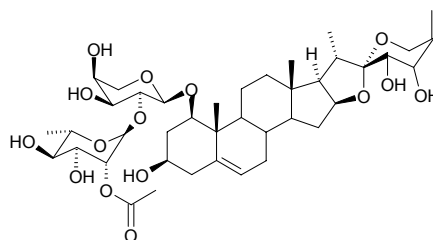
(23S,24S)-Spirosta-5,25(27)-diene-1β,3β,23,24-tetrol-O- $\{O$ -(2,3,4-tri-O-acetyl-1- $\alpha$ -L-rhamnopyranosyl)-(1→2)- $\alpha$ -L-arabinopyranosyl} C<sub>44</sub>H<sub>64</sub>O<sub>17</sub> (864.99). Amorphous solid, [α]<sub>D</sub><sup>20</sup> = -70° (c = 1.5, ethanol). Pharm: Cytotoxic (*in vitro*, HL-60, IC<sub>50</sub> = 9.7 μmol/L). Source: LONG XUE SHU *Dracaena draco* (stem cortex: yield = 0.00034%). Ref: 4696.

**6577 DraconinB**

(23S,24S)-Spirosta-5,25(27)-diene-1β,3β,23,24-tetrol 1-O- $\{O$ -(2,3-di-O-acetyl- $\alpha$ -L-rhamnopyranosyl)-(1→2)- $\alpha$ -L-arabinopyranosyl} C<sub>42</sub>H<sub>62</sub>O<sub>16</sub> (822.95). Amorphous solid, [α]<sub>D</sub><sup>20</sup> = -100° (c = 2.6, ethanol). Pharm: Cytotoxic (*in vitro*, HL-60, IC<sub>50</sub> = 39 μmol/L). Source: LONG XUE SHU *Dracaena draco* (stem cortex: yield = 0.0017%). Ref: 4696.

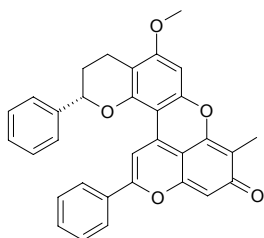
**6578 DraconinC**

(23S,24S)-Spirosta-5,25(27)-diene-1β,3β,23,24-tetrol 1-O- $\{O$ -(2-O-acetyl- $\alpha$ -L-rhamnopyranosyl)-(1→2)- $\alpha$ -L-arabinopyranosyl} C<sub>40</sub>H<sub>60</sub>O<sub>15</sub> (780.92). Amorphous solid, [α]<sub>D</sub><sup>20</sup> = -85° (c = 11.5, ethanol). Pharm: Cytotoxic inactive (*in vitro*, HL-60, IC<sub>50</sub> > 100 μmol/L). Source: LONG XUE SHU *Dracaena draco* (stem cortex: yield = 0.0039%). Ref: 4696.

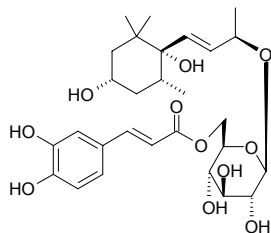


**6579 Dracorubin**

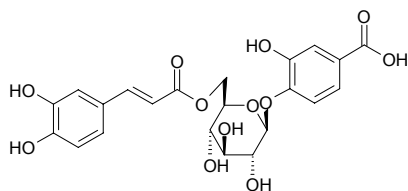
[6219-63-2] C<sub>32</sub>H<sub>24</sub>O<sub>5</sub> (488.55). Source: LONG XUE SHU *Dracaena draco*.  
Ref: 658.

**6580 Dracunculifoside A**

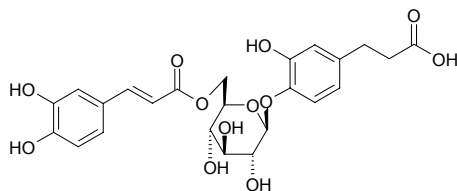
C<sub>28</sub>H<sub>41</sub>O<sub>11</sub> (552.62). Amorphous powder,  $[\alpha]_D^{26} = -24.4^\circ$  ( $c = 0.75$ , MeOH).  
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.

**6581 Dracunculifoside B**

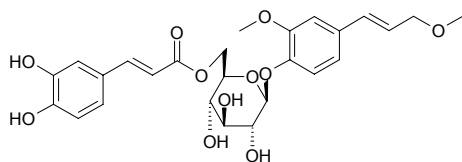
C<sub>22</sub>H<sub>22</sub>O<sub>12</sub> (478.41). Amorphous powder,  $[\alpha]_D^{26} = -72.9^\circ$  ( $c = 0.40$ , MeOH).  
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.

**6582 Dracunculifoside C**

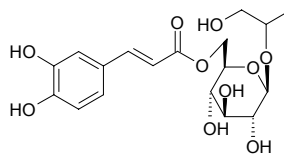
C<sub>24</sub>H<sub>26</sub>O<sub>12</sub> (506.47). Amorphous powder,  $[\alpha]_D^{26} = -58.9^\circ$  ( $c = 0.59$ , MeOH).  
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.

**6583 Dracunculifoside D**

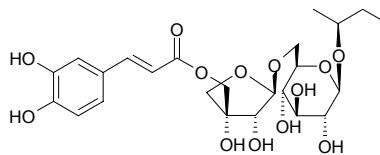
C<sub>26</sub>H<sub>30</sub>O<sub>11</sub> (518.52). Amorphous powder,  $[\alpha]_D^{26} = -6.7^\circ$  ( $c = 0.36$ , MeOH).  
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.

**6584 Dracunculifoside E**

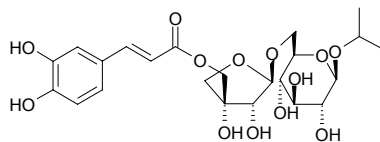
C<sub>18</sub>H<sub>24</sub>O<sub>10</sub> (400.39). Amorphous powder,  $[\alpha]_D^{26} = -19.9^\circ$  ( $c = 0.68$ , MeOH).  
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.

**6585 Dracunculifoside F**

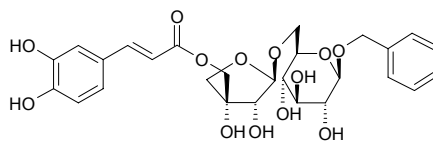
C<sub>24</sub>H<sub>34</sub>O<sub>13</sub> (530.52). Amorphous powder,  $[\alpha]_D^{26} = -41.9^\circ$  ( $c = 0.95$ , MeOH).  
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.

**6586 Dracunculifoside G**

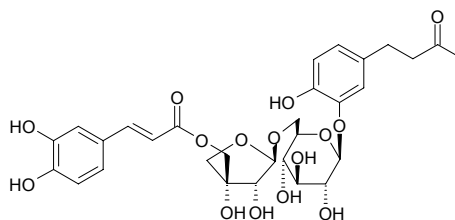
C<sub>23</sub>H<sub>32</sub>O<sub>13</sub> (516.50). Amorphous powder,  $[\alpha]_D^{26} = -51.8^\circ$  ( $c = 0.46$ , MeOH).  
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.

**6587 Dracunculifoside H**

C<sub>27</sub>H<sub>32</sub>O<sub>13</sub> (564.55). Amorphous powder,  $[\alpha]_D^{26} = -64.0^\circ$  ( $c = 0.84$ , MeOH).  
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.

**6588 Dracunculifoside I**

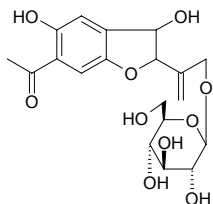
C<sub>30</sub>H<sub>36</sub>O<sub>15</sub> (636.61). Amorphous powder,  $[\alpha]_D^{26} = -77.6^\circ$  ( $c = 0.59$ , MeOH).  
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.



**6589 Dracunculifoside J**

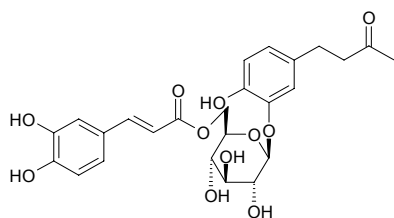
$C_{19}H_{24}O_{10}$  (412.40). Amorphous powder,  $[\alpha]_D^{26} = -18.8^\circ$  ( $c = 0.86$ , MeOH).

Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4137.

**6590 Dracunculifoside K**

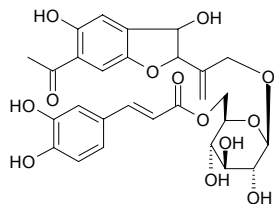
$C_{25}H_{28}O_{11}$  (504.50). Amorphous powder,  $[\alpha]_D^{22} = -49^\circ$  ( $c = 0.55$ , MeOH).

Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4184.

**6591 Dracunculifoside L**

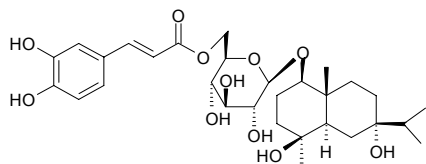
$C_{28}H_{30}O_{13}$  (574.54). Amorphous powder,  $[\alpha]_D^{22} = -28^\circ$  ( $c = 0.23$ , MeOH).

Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4184.

**6592 Dracunculifoside M**

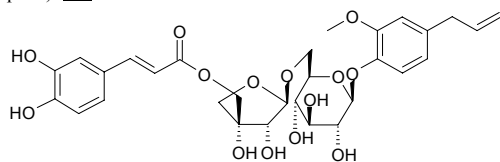
$C_{30}H_{44}O_{11}$  (580.68). Amorphous powder,  $[\alpha]_D^{22} = -35^\circ$  ( $c = 0.35$ , MeOH).

Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4184.

**6593 Dracunculifoside N**

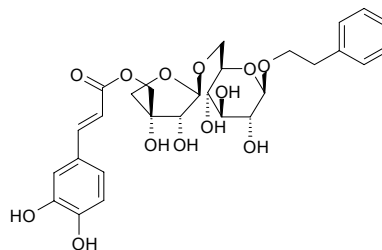
$C_{30}H_{36}O_{14}$  (620.61). Amorphous powder,  $[\alpha]_D^{22} = -71^\circ$  ( $c = 0.54$ , MeOH).

Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4184.

**6594 Dracunculifoside O**

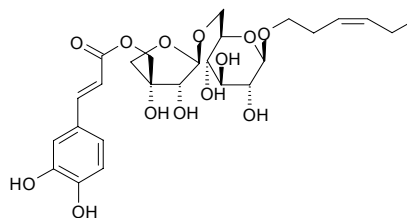
$C_{28}H_{34}O_{13}$  (578.58). Amorphous powder,  $[\alpha]_D^{22} = -51^\circ$  ( $c = 0.36$ , MeOH).

Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4184.

**6595 Dracunculifoside P**

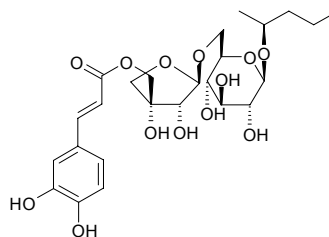
$C_{26}H_{36}O_{13}$  (556.57). Amorphous powder,  $[\alpha]_D^{22} = -49^\circ$  ( $c = 0.39$ , MeOH).

Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4184.

**6596 Dracunculifoside Q**

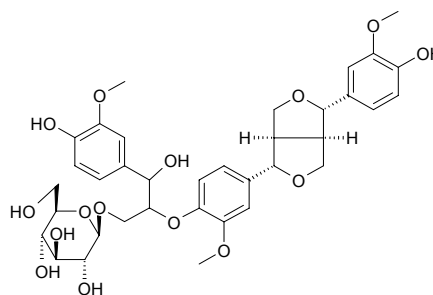
$C_{25}H_{36}O_{13}$  (544.56). Amorphous powder,  $[\alpha]_D^{22} = -58^\circ$  ( $c = 0.16$ , MeOH).

Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4184.

**6597 Dracunculifoside R**

$C_{36}H_{44}O_{15}$  (716.74). Amorphous powder,  $[\alpha]_D^{22} = +8.5^\circ$  ( $c = 0.30$ , MeOH).

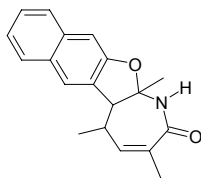
Source: XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). Ref: 4184.



**6598 Drazepinone**

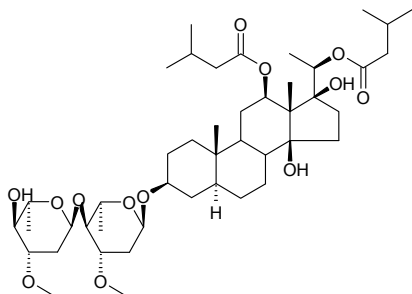
3,5,12a-Trimethyl-2,5,5a,12a-tetrahydro-1*H*-naphtho[2',3':4,5]furo[2,3-*b*]azepin-2-one C<sub>19</sub>H<sub>19</sub>NO<sub>2</sub> (293.37). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +7.1° (*c* = 0.2). **Pharm:** Herbicide.

**Source:** *Drechslera siccans*. **Ref:** 5268.

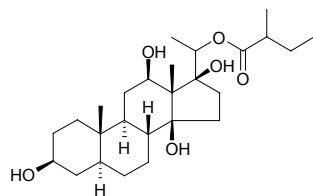
**6599 Dregeoside B**

12,20-Di-*O*-isovaleryl-tomentogenin-3-*O*- $\alpha$ -*L*-oleandropyranosyl-(1 $\rightarrow$ 4)-*O*- $\alpha$ -*L*-oleandropyranoside [133086-69-8] C<sub>45</sub>H<sub>76</sub>O<sub>13</sub> (825.10). White powder, mp 123~126°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +38.5° (*c* = 0.25, methanol). **Source:** KU SHENG

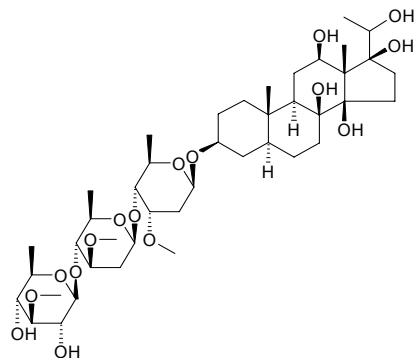
*Dregea sinensis*. **Ref:** 165.

**6600 Dresigenin B**

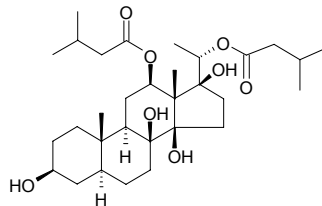
20-*O*-(2-Methylbutyryl)tomentogenin C<sub>26</sub>H<sub>44</sub>O<sub>6</sub> (452.64). Colorless acicular crystals, mp 232~235°C. **Source:** KU SHENG *Dregea sinensis*. **Ref:** 363.

**6601 Dresioside I**

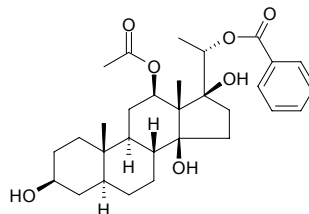
Dihydrosarcostin 3-*O*- $\beta$ -*D*-thevetopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-oleandropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-cymaropyranoside C<sub>42</sub>H<sub>72</sub>O<sub>16</sub> (833.03). White amorphous powder, mp 151~154°C. **Source:** KU SHENG *Dregea sinensis*. **Ref:** 363.

**6602 Drevogenin I**

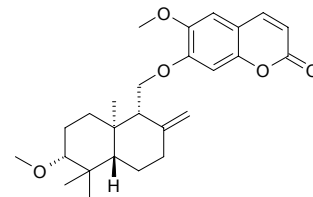
*cis*-5 $\alpha$ -*H*,3 $\beta$ ,8 $\beta$ ,14 $\beta$ ,17 $\beta$ -Tetrahydroxy-12 $\beta$ -*O*-isovaleryl-20-*O*-isovaleryl-pregnane [125310-02-3] C<sub>31</sub>H<sub>52</sub>O<sub>8</sub> (552.76). Prismatic crystals, mp 235~238°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +34.5° (*c* = 0.15, MeOH). **Source:** KU SHENG *Dregea sinensis*. **Ref:** 134.

**6603 Drevogenin II**

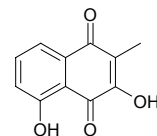
*cis*-5 $\alpha$ -*H*,3 $\beta$ ,14 $\beta$ ,17 $\beta$ -Trihydroxy-12 $\beta$ -*O*-acetyl-20-*O*-benzoyl-pregnane [125472-06-2] C<sub>30</sub>H<sub>42</sub>O<sub>7</sub> (514.67). Prismatic crystals, mp 235~237°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +36.5° (*c* = 0.52, MeOH). **Source:** KU SHENG *Dregea sinensis*. **Ref:** 134.

**6604 Driportlandin**

(5 $\beta$ ,9 $\alpha$ ,10 $\alpha$ )-7-*O*-(3 $\alpha$ -Methoxy-8'(12')-drimen-11'-yl)-scopoletin C<sub>26</sub>H<sub>34</sub>O<sub>5</sub> (426.56). White amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +30.1° (*c* = 0.40, CHCl<sub>3</sub>). **Pharm:** P-glycoprotein inhibitor (hmn MDR1 gene transfected mouse lymphoma cells, reverses multidrug resistance (MDR), more active than positive control Verapamil). **Source:** BO TE LAN DA JI *Euphorbia portlandica* (whole herb). **Ref:** 5019.

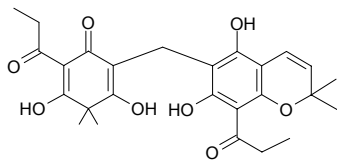
**6605 Droserone**

3,5-Dihydroxy-2-methyl-1,4-naphthoquinone [478-40-0] C<sub>11</sub>H<sub>8</sub>O<sub>4</sub> (204.18). mp 181°C. **Pharm:** Antibacterial (hmn *Mycobacterium tuberculosis* H37RV, *in vitro*, MIC = 25 $\mu$ g/mL). **Source:** DUN ZHUANG MAO GAO CAI *Drosera peltata*, HUI TE KE MAO GAO CAI *Drosera whittakeri*, MAO GAO CAI *Drosera peltata* var. *lunata*. **Ref:** 6, 621, 658.

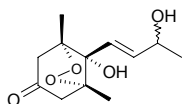


**6606 Drummondin A**

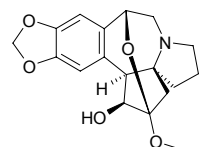
[119171-76-5]  $C_{26}H_{30}O_8$  (470.52). **Pharm:** Antimicrobial; cytotoxic (P<sub>388</sub>, KB). **Source:** DE LA MENG DE JIN SI TAO *Hypericum drummondii*. **Ref:** 658.

**6607 Drummondol**

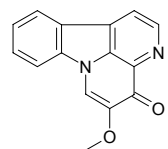
$C_{12}H_{18}O_5$  (242.27). **Source:** HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00021%dw). **Ref:** 4779.

**6608 Drupacine**

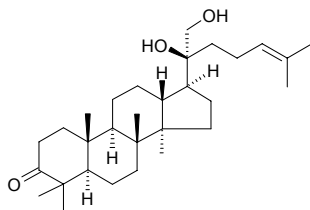
[49686-57-9]  $C_{18}H_{21}NO_5$  (331.37). **Source:** HAI NAN CU FEI *Cephalotaxus hainanensis* [Syn. *Cephalotaxus manni*], SAN JIAN SHAN *Cephalotaxus fortunei* (drupe: yield = 0.10%)<sup>[4675]</sup>, ZHONG GUO CU FEI ZHI YE *Cephalotaxus sinensis* [Syn. *Cephalotaxus harringtonia* var. *sinensis*]. **Ref:** 2, 660, 4675.

**6609 Drymaritin**

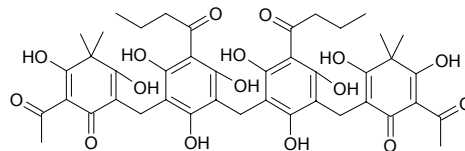
$C_{15}H_{10}N_2O_2$  (250.26). Pale yellow amorphous solid, mp 181~183°C,  $[\alpha]_D^{25} = 0^\circ$  ( $c = 0.02$ ,  $CHCl_3$ ). **Pharm:** Anti-HIV (H9 lymphocytes,  $EC_{50} = 0.699 \mu g/mL$ ,  $TI = 20.6$ ). **Source:** ER RUI HE LIAN DOU *Drymaria diandra* [Syn. *Drymaria cordata* ssp. *diandra*] (whole herb: yield = 0.0011%dw). **Ref:** 4758.

**6610 Dryobalanone**

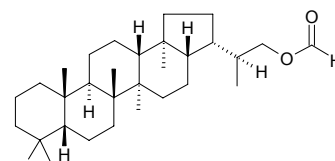
20,21-Dihydroxydammar-24-en-3-one [17939-10-5]  $C_{30}H_{50}O_3$  (458.73). **Source:** BING PIAN *Dryobalanops aromatica*. **Ref:** 2.

**6611 Dryocrassin**

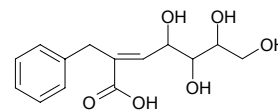
[12777-70-78]  $C_{43}H_{48}O_{16}$  (820.85). Yellow crystals (acetone), mp 209~214°C; yellowish powder crystals, mp 210~214°C. **Pharm:** Schistosomacide (*Bilharzia japonica*). **Source:** GUAN ZHONG *Dryopteris crassirhizoma* (dried rhizome: content scope = 2.15%~6.95%, mean content = 4.37%<sup>[5508]</sup>). **Ref:** 658, 5508.

**6612 Dryocrassyl formate**

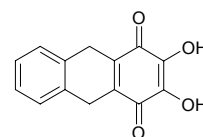
$C_{31}H_{52}O_2$  (456.76). mp 67°C,  $[\alpha]_D = +21.3^\circ$  ( $c = 0.2$ ,  $CHCl_3$ ). **Source:** BING YE SUO LUO *Yathea podophylla* (fresh frond). **Ref:** 4401.

**6613 Drypearmoracin A**

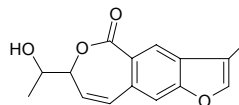
(*E*)-4,5,6,7-Tetrahydroxy-2-benzylhept-2-enoic acid  $C_{14}H_{18}O_6$  (282.30). Colorless crystals, mp 250°C,  $[\alpha]_D = +27^\circ$  ( $c = 0.750$ , MeOH). **Source:** LA GEN HE GUO MU *Drypetes armoracia*. **Ref:** 3389.

**6614 Drypearmoracin B**

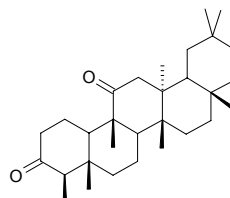
2,3-Dihydroxy-9,10-tetrahydroantra-1,4-quinone  $C_{14}H_{10}O_4$  (242.23). White crystals, mp 160°C. **Source:** LA GEN HE GUO MU *Drypetes armoracia*. **Ref:** 3389.

**6615 Drypemolundein A**

$C_{15}H_{14}O_4$  (258.28). White crystals, mp 148~150°C,  $[\alpha]_D^{25} = -137.0^\circ$  ( $c = 1.01$ ,  $CHCl_3$ ). **Source:** *Drypetes molunduana* (stem). **Ref:** 3989.

**6616 Drypemolundein B**

$C_{30}H_{48}O_2$  (440.72). White powder, mp 290~292°C,  $[\alpha]_D^{25} = -8.0^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). **Source:** *Drypetes molunduana* (stem). **Ref:** 3989.

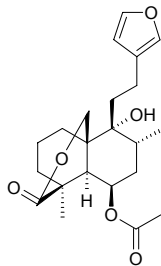




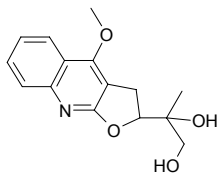
**6617 Dubiin**

$C_{22}H_{30}O_6$  (390.48). **Pharm:** Cytotoxic ( $L_{1210}$  in tissue culture,  $IC_{50} = 50\text{--}60\mu\text{g/mL}$ ).

**Source:** XI YE YI MU CAO *Leonurus sibiricus* (aerial parts). **Ref:** 4328.

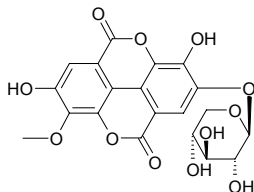
**6618 Dubinidine**

[22964-77-8]  $C_{15}H_{17}NO_4$  (275.31). mp  $132\text{--}133^\circ\text{C}$ ; hydrochloride: mp  $195\text{--}196^\circ\text{C}$ ; nitrate: mp  $176\text{--}177^\circ\text{C}$ . **Pharm:** Anti-diuretic (2000mg/kg); sedative (mus and rat, 100mg/kg orl); antipyretic (mus and rat, 100mg/kg orl). **Source:** DA YE YUN XIANG CAO *Haplophyllum perforatum*. **Ref:** 658.

**6619 Ducheside A**

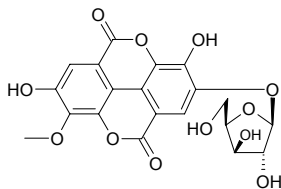
3'-O-Methyl-ellagic acid-4-O- $\beta$ -D-xylopyranoside  $C_{20}H_{16}O_{12}$  (448.34).

Yellowish powder, mp  $> 360^\circ\text{C}$ ,  $[\alpha]_D^{18} = -11.3^\circ$  ( $c = 0.035$ , methanol). **Source:** SHE MEI *Duchesnea indica*. **Ref:** 368.

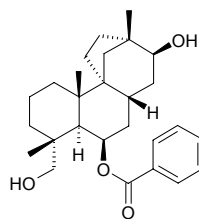
**6620 Ducheside B**

3'-O-Methyl-ellagic acid 4-O- $\alpha$ -L-arabinofuranoside  $C_{20}H_{16}O_{12}$  (448.34).

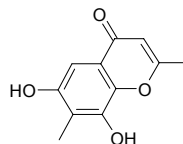
Yellowish powder, mp  $> 360^\circ\text{C}$ ,  $[\alpha]_D^{19} = -126.5^\circ$  ( $c = 0.027$ , methanol). **Source:** SHE MEI *Duchesnea indica*. **Ref:** 368.

**6621 Dulcidiol**

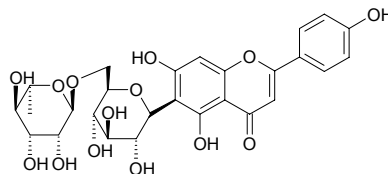
$C_{27}H_{38}O_4$  (426.6). Gum,  $[\alpha]_D^{25} = -33.5^\circ$  ( $c = 0.50$ ,  $\text{CHCl}_3$ ). **Pharm:** Cytotoxic (*in vitro*, SCL,  $ED_{50} = 45.3\mu\text{mol/L}$ ; SCL-6,  $ED_{50} = 46\mu\text{mol/L}$ ; SCL-37'6,  $ED_{50} = 42.6\mu\text{mol/L}$ ; SCL-9,  $ED_{50} = 41.6\mu\text{mol/L}$ ; Kato3,  $ED_{50} = 29\mu\text{mol/L}$ ; NUGC-4,  $ED_{50} = 105.1\mu\text{mol/L}$ ; control Vinblastine Sulfate: SCL,  $ED_{50} = 5.9\mu\text{mol/L}$ ; SCL-6,  $ED_{50} = 6.1\mu\text{mol/L}$ ; SCL-37'6,  $ED_{50} = 5.3\mu\text{mol/L}$ ; SCL-9,  $ED_{50} = 5.3\mu\text{mol/L}$ ; Kato3,  $ED_{50} = 6.1\mu\text{mol/L}$ ; NuGc-4,  $ED_{50} = 5.3\mu\text{mol/L}$ ). **Source:** YE GAN CAO *Scoparia dulcis* (aerial parts: yield = 0.00231%dw). **Ref:** 4703.

**6622 Dulcinone**

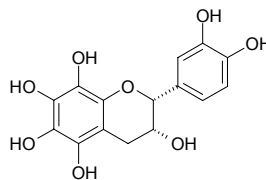
6,8-Dihydroxy-2,7-dimethyl-4H-chromen-4-one  $C_{11}H_{10}O_4$  (206.20). Yellow solid. **Pharm:** Antioxidant inactive (DPPH scavenger,  $10\mu\text{mol/L}$ , ScRt = 3%; control BHT,  $10\mu\text{mol/L}$ , ScRt = 43%,  $IC_{50} = 19.00\mu\text{mol/L}$ ). **Source:** TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). **Ref:** 4422.

**6623 Dulcinoside**

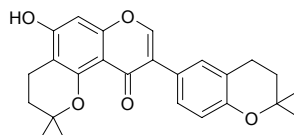
5,7,4'-Trihydroxyflavone 6-C-[ $\alpha$ -rhamnopyranosyl-(1 $\rightarrow$ 6)]- $\beta$ -glucopyranoside  $C_{27}H_{30}O_{14}$  (578.53). Yellow solid, mp  $200\text{--}202^\circ\text{C}$ . **Pharm:** Antioxidant (DPPH scavenger,  $10\mu\text{mol/L}$ , ScRt = 22%, control BHT,  $10\mu\text{mol/L}$ , ScRt = 43%). **Source:** TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). **Ref:** 5319.

**6624 Dulcisflavan**

3,5,6,7,8,3',4'-Heptahydroxyflavan  $C_{15}H_{14}O_8$  (322.27). Light brown solid, mp  $240\text{--}242^\circ\text{C}$ ,  $[\alpha]_D^{29} = -72.0^\circ$  ( $c = 0.012$ ,  $\text{CH}_3\text{OH}$ ). **Pharm:** Antioxidant (DPPH scavenger,  $10\mu\text{mol/L}$ , ScRt = 87%, control BHT,  $10\mu\text{mol/L}$ , ScRt = 43%). **Source:** TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). **Ref:** 5319.

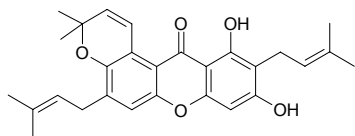
**6625 Dulcisoflavone**

7-Hydroxy-2'',2''-dimethylchromano[5,6:6',5'']-2''',2'''-dimethylchromano[3',4':5'',6''']isoflavone  $C_{25}H_{26}O_5$  (406.48). Yellow solid, mp  $178\text{--}180^\circ\text{C}$ . **Pharm:** Antioxidant (DPPH scavenger,  $10\mu\text{mol/L}$ , ScRt = 15%, control BHT,  $10\mu\text{mol/L}$ , ScRt = 43%). **Source:** TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). **Ref:** 5319.

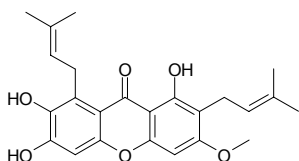


**6626 Dulcisxanthone A**

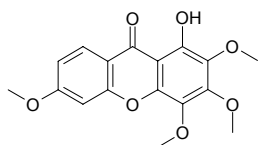
1,3-Dihydroxy-2,6-bis(3-methyl-2-butenyl)-2,2-dimethylchromeno(5<sup>'''</sup>,6<sup>'''</sup>:8,7)xanthone C<sub>28</sub>H<sub>30</sub>O<sub>5</sub> (446.55). Yellow solid, mp 119~120°C. Pharm: Antioxidant (DPPH scavenger, 10μmol/L, ScRt = 2%, control BHT, 10μmol/L, ScRt = 43%); antibacterial (*Staphylococcus aureus* ATCC 25923, MIC > 128μg/mL, control Vancomycin, MIC = 2μg/mL; *Staphylococcus aureus* MRSA SK1, MIC > 128μg/mL, Vancomycin, MIC = 2μg/mL). Source: TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). Ref: 5319.

**6627 Dulcisxanthone B**

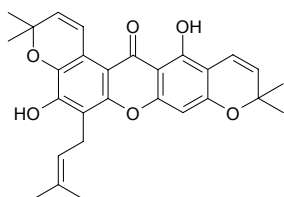
1,6,7-Trihydroxy-3-methoxy-2,8-bis(3-methyl-2-butenyl)xanthone C<sub>24</sub>H<sub>26</sub>O<sub>6</sub> (410.47). Yellow solid, mp 170~172°C. Pharm: Antioxidant (DPPH scavenger, 10μmol/L, ScRt = 18%, control BHT, 10μmol/L, ScRt = 43%). Source: TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). Ref: 5319.

**6628 Dulcisxanthone C**

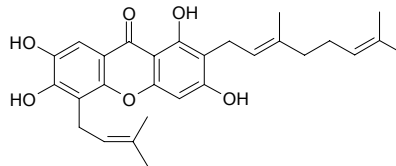
1-Hydroxy-2,3,4,6-tetramethoxyxanthone C<sub>17</sub>H<sub>16</sub>O<sub>7</sub> (322.31). Yellow solid, mp 125~128°C. Pharm: Antioxidant inactive (DPPH scavenger, 10μmol/L, ScRt = 2%; control BHT, 10μmol/L, ScRt = 43%, IC<sub>50</sub> = 19.00μmol/L). Source: TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). Ref: 4422.

**6629 Dulcisxanthone D**

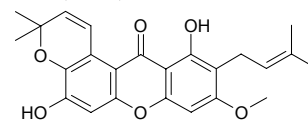
Tovophyllin B; 1,6-Dihydroxy-5-(3-methyl-2-butenyl)-2',2'-dimethylchromeno(5',6':2,3)-2''',2''-dimethylchromeno(5''',6''':8,7)xanthone C<sub>28</sub>H<sub>28</sub>O<sub>6</sub> (460.53). Orange solid, mp 218~220°C. Pharm: Antioxidant inactive (DPPH scavenger, 10μmol/L, ScRt = 16%; control BHT, 10μmol/L, ScRt = 43%, IC<sub>50</sub> = 19.00μmol/L)<sup>[4422]</sup>; antitubercular (*Mycobacterium tuberculosis*, MIC = 25μg/mL)<sup>[4358]</sup>. Source: DAO NIAN ZI *Garcinia mangostana* (fruit, fruit hull), TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). Ref: 3066, 4358, 4422.

**6630 Dulcisxanthone E**

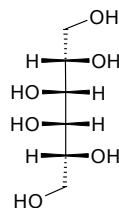
1,3,6,7-Tetrahydroxy-2-(3,7-dimethyl-2,6-octadienyl)-5-(3-methyl-2-butenyl)xanthone C<sub>28</sub>H<sub>32</sub>O<sub>6</sub> (464.56). Yellow solid. Pharm: Antioxidant inactive (DPPH scavenger, 10μmol/L, ScRt = 15%; control BHT, 10μmol/L, ScRt = 43%, IC<sub>50</sub> = 19.00μmol/L). Source: TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). Ref: 4422.

**6631 Dulcisxanthone F**

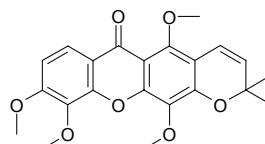
1,6-Dihydroxy-2-(3-methyl-2-butenyl)-3-methoxy-2''-dimethylchromeno-(5',6':8,7)-xanthone C<sub>24</sub>H<sub>24</sub>O<sub>6</sub> (408.46). Yellow solid. Pharm: Antioxidant inactive (DPPH scavenger, 10μmol/L, ScRt = 2%; control BHT, 10μmol/L, ScRt = 43%, IC<sub>50</sub> = 19.00μmol/L). Source: TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). Ref: 4422.

**6632 Dulcitol**

Galactitol [608-66-2] C<sub>6</sub>H<sub>14</sub>O<sub>6</sub> (182.17). mp 188.5°C, bp 275~280°C/1mmHg; mp 110~111°C (anhydrate); mp 188~190°C, bp 275~280°C/1mmHg. Pharm: Sweetener (sugar substitute); laxative (veterinary). Source: A LA BO PO NA *Veronica persica* (aerial parts), DOU SHU *Pachyrrhizus erosus* (seed), DU ZHONG *Eucommia ulmoides*, FU FANG TENG *Euonymus fortunei*, GUI JIAN YU *Euonymus alatus*, HAI HONG DOU *Adenantha pavonina*, JI CAI *Capsella bursa-pastoris*, LEI GONG TENG *Tripterygium wilfordii*, OU ZHOU HUA QIU *Sorbus aucuparia*, PI PA YE *Eriobotrya japonica*, SHI LIU GEN *Punica granatum*, SHUI ZHI *Gardenia jasminoides* var. *grandiflora*, SHUI ZHI YE *Gardenia jasminoides* var. *grandiflora*, SI MIAN MU *Euonymus bungeanus*, SUO LA MU *Salacia prinooides* [Syn. *Salacia chinensis*], WU YE TENG *Cassytha filiformis*, YE ZI RANG *Cocos nucifera*, YUAN CAN ZI *Bombyx mori*, ZI GUO WEI MAO *Euonymus atropurpureus*. Ref: 2, 6, 587, 658, 1521, 4180, 4211.

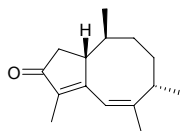
**6633 Dulxanthone E**

5,9,10,12-Tetramethoxy-2,2-dimethyl-2H-pyrano[5,6-b]xanthen-6-one C<sub>22</sub>H<sub>22</sub>O<sub>7</sub> (398.42). Yellow cubes, mp 191~192°C. Source: TIAN SHAN ZHU ZI *Garcinia dulcis*. Ref: 2399.

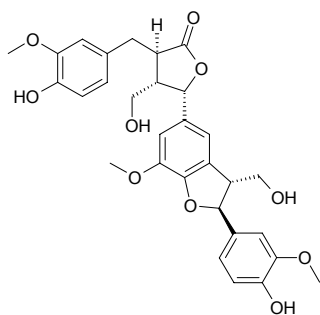


**6634 4,6-Dumortadien-3-one**

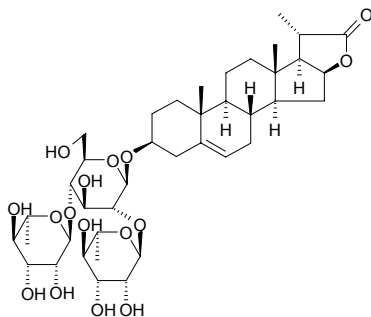
[240417-19-0] C<sub>15</sub>H<sub>22</sub>O (218.34). Oil. Source: MAO DI QIAN *Dumortiera hirsuta*. Ref: 2283.

**6635 Dumosaol**

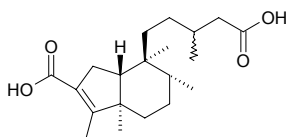
3-(4-Hydroxy-3-methoxy-benzyl)-5-[2-(4-hydroxy-3-methoxy-phenyl)-3-hydroxymethyl-7-methoxy-2,3-dihydro-benzofuran-5-yl]-4-hydroxymethyl-dihydro-furan-2-one C<sub>30</sub>H<sub>32</sub>O<sub>10</sub> (552.58). Amorphous powder, mp 70~72°C, [α]<sub>D</sub><sup>27</sup> = +30.44° (c = 0.77, MeOH). Source: YUN NAN TIE SHAN *Tsuga dumosa* (heartwood). Ref: 4572.

**6636 Dumoside**

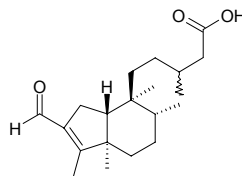
(2*S*)-3β,16β-dihydroxy pregn-5-ene-22-carboxylic acid (22,16)-lactone-3-*O*-β-chacotrioxide C<sub>40</sub>H<sub>62</sub>O<sub>16</sub> (798.93). white amorphous, mp 185.5~187°C, [α]<sub>D</sub><sup>25</sup> = -13.38° (c = 0.36, MeOH). Source: GUAN MU TIAN MEN DONG *Asparagus dumosus*, HAI JIN BI XIE *Dioscorea spongiosa* (Rhizome: yield = 0.00013%)<sup>[4692]</sup>. Ref: 1908, 4692.

**6637 Dunniana acid A**

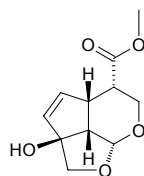
C<sub>20</sub>H<sub>32</sub>O<sub>4</sub> (336.48). Colorless oil, [α]<sub>D</sub><sup>23</sup> = +281.4° (c = 0.35, CHCl<sub>3</sub>). Source: HEI GUO HUANG PI *Clausena dunniana* (aerial parts: yield = 0.00035%dw). Ref: 4615.

**6638 Dunniana acid B**

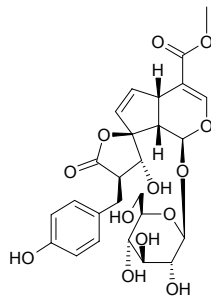
C<sub>20</sub>H<sub>32</sub>O<sub>3</sub> (320.48). Colorless oil, [α]<sub>D</sub><sup>23</sup> = +83.3° (c = 0.75, CHCl<sub>3</sub>). Source: HEI GUO HUANG PI *Clausena dunniana* (aerial parts: yield = 0.00075%dw). Ref: 4615.

**6639 Dunnisinin**

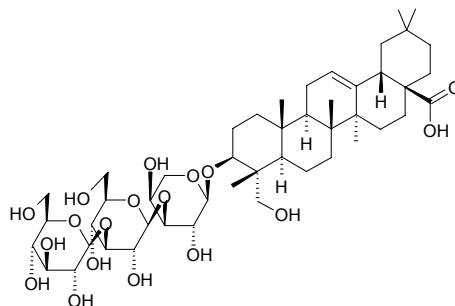
C<sub>11</sub>H<sub>14</sub>O<sub>5</sub> (226.23). Colorless acicular crystals, mp 178~179°C, [α]<sub>D</sub><sup>25</sup> = +213.5° (c = 0.2, MeOH). Source: XIU QIU QIAN CAO *Dunnia sinensis*. Ref: 764.

**6640 Dunnisinide**

C<sub>26</sub>H<sub>30</sub>O<sub>13</sub> (550.52). Colorless prisms, mp 221~223°C, [α]<sub>D</sub><sup>25</sup> = +28.4° (c = 0.25, MeOH). Source: XIU QIU QIAN CAO *Dunnia sinensis*. Ref: 764.

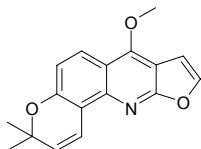
**6641 Durupcoside C**

Hederagenin 3-*O*-β-*D*-glucopyranosyl(1→3)-β-*D*-glucopyranosyl(1→3)-α-*L*-arabinopyranoside C<sub>47</sub>H<sub>76</sub>O<sub>18</sub> (929.12). Amorphous powder (MeOH), [α]<sub>D</sub><sup>27</sup> = +35.7° (c = 0.28, MeOH). Source: LIAO DONG CONG MU YE *Aralia elata*. Ref: 4471.

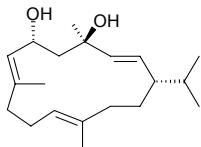


**6642 Dutadrupine**

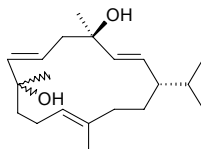
$C_{17}H_{15}NO_3$  (281.31). **Pharm:** Cytotoxic (P<sub>388</sub> cell line, ED<sub>50</sub> = 0.09 μg/mL, control Mithramycin, ED<sub>50</sub> = 0.06 μg/mL; HT29, ED<sub>50</sub> = 0.11 μg/mL, Mithramycin, ED<sub>50</sub> = 0.07 μg/mL; A549, ED<sub>50</sub> = 0.13 μg/mL, Mithramycin, ED<sub>50</sub> = 0.08 μg/mL). **Source:** SI ROU TUO GUO YE MI ZHU YU *Melicope semecarpifolia*. **Ref:** 5405.

**6643 β-4,8,13-Duvatriene-1,3-diol**

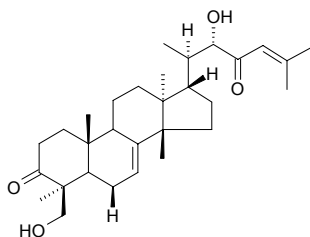
(1*S*,2*E*,4*R*,6*R*,7*E*,11*E*)-2,7,11-Cembratriene-4,6-diol [57605-81-9]  $C_{20}H_{34}O_2$  (306.49). mp 127.0~127.5°C (hexane),  $[\alpha]_D^{25} = +162^\circ$  (chloroform). **Pharm:** Antineoplastic (tumor caused by TPA, mus skin cancer caused by DMBA); anti-inflammatory; prostaglandin biosynthesis inhibitor (IC<sub>50</sub> = 0.39 mmol/L); plant growth inhibitor; aldose reductase inhibitor; pesticide (kills aphids, LC<sub>50</sub> = 15.7 μg/aphid). **Source:** YAN CAO *Nicotiana tabacum*. **Ref:** 900.

**6644 β-3,8,13-Duvatriene-1,5-diol**

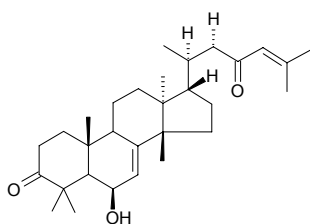
$C_{20}H_{34}O_2$  (306.49). Crystals (Et<sub>2</sub>O), mp 150~152°C,  $[\alpha]_D^{25} = +40^\circ$ . **Source:** YAN CAO *Nicotiana tabacum*. **Ref:** 1521.

**6645 Dymacrin A**

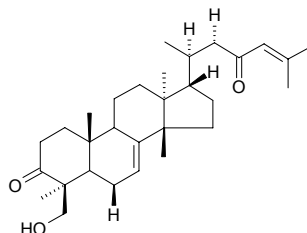
$C_{30}H_{46}O_4$  (470.70).  $[\alpha]_D = +31^\circ$  (*c* = 1, CHCl<sub>3</sub>). **Source:** DA HUA JIAN MU *Dysoxylum macranthum*. **Ref:** 2407.

**6646 Dymacrin B**

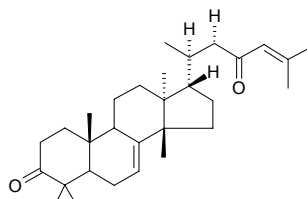
$C_{30}H_{46}O_3$  (454.70).  $[\alpha]_D = -17^\circ$  (*c* = 1, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (KB cells, IC<sub>50</sub> = 5.6 μg/mL). **Source:** DA HUA JIAN MU *Dysoxylum macranthum*. **Ref:** 2407.

**6647 Dymacrin C**

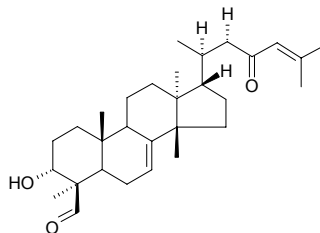
$C_{30}H_{46}O_3$  (454.70).  $[\alpha]_D = +16^\circ$  (*c* = 1, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (KB cells, IC<sub>50</sub> = 5.0 μg/mL)<sup>[2407]</sup>. **Source:** DA HUA JIAN MU *Dysoxylum macranthum*. **Ref:** 2407.

**6648 Dymacrin D**

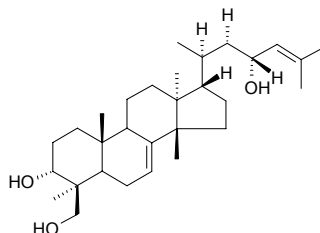
$C_{30}H_{46}O_2$  (438.70).  $[\alpha]_D = -36^\circ$  (*c* = 1, CHCl<sub>3</sub>). **Source:** DA HUA JIAN MU *Dysoxylum macranthum*. **Ref:** 2407.

**6649 Dymacrin E**

$C_{30}H_{46}O_3$  (454.70).  $[\alpha]_D = +4^\circ$  (*c* = 1, CHCl<sub>3</sub>). **Source:** DA HUA JIAN MU *Dysoxylum macranthum*. **Ref:** 2407.

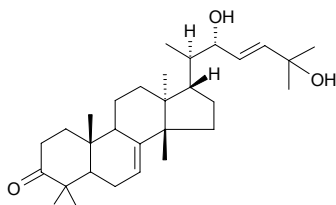
**6650 Dymacrin F**

$C_{30}H_{50}O_3$  (458.73).  $[\alpha]_D = -27^\circ$  (*c* = 1, CHCl<sub>3</sub>). **Source:** DA HUA JIAN MU *Dysoxylum macranthum*. **Ref:** 2407.

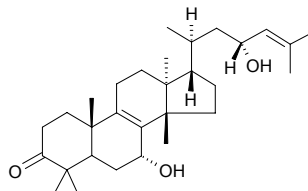


**6651 Dymacrin G**

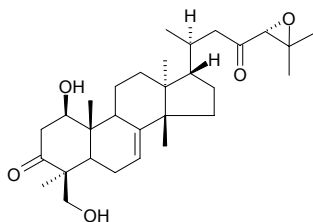
$C_{30}H_{48}O_3$  (456.72).  $[\alpha]_D = -17^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: DA HUA JIAN MU *Dysoxylum macranthum*. Ref: 2407.

**6655 Dymacrin K**

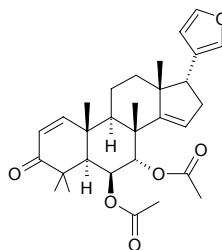
$C_{30}H_{48}O_3$  (456.72).  $[\alpha]_D = -5^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: DA HUA JIAN MU *Dysoxylum macranthum*. Ref: 2407.

**6652 Dymacrin H**

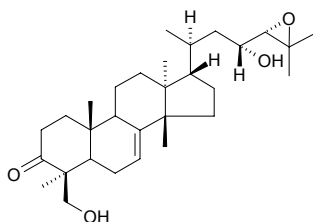
$C_{30}H_{46}O_5$  (486.70).  $[\alpha]_D = +17^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Pharm: Cytotoxic (KB cells,  $IC_{50} = 8.3 \mu g/mL$ )<sup>[2407]</sup>. Source: DA HUA JIAN MU *Dysoxylum macranthum*. Ref: 2407.

**6656 Dysobinin**

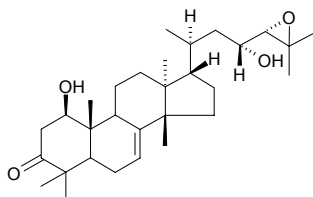
[62655-03-2]  $C_{30}H_{38}O_6$  (494.63). mp 185–187°C,  $[\alpha]_D = +150^\circ$  (chloroform). Pharm: Anti-inflammatory; CNS depressant. Source: HONG GUO JIAN MU *Dysoxylum binectariferum*. Ref: 661.

**6653 Dymacrin I**

$C_{30}H_{48}O_4$  (472.71).  $[\alpha]_D = -31^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: DA HUA JIAN MU *Dysoxylum macranthum*. Ref: 2407.

**6654 Dymacrin J**

$C_{30}H_{48}O_4$  (472.71).  $[\alpha]_D = +30^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Pharm: Cytotoxic (KB cells,  $IC_{50} = 1.0 \mu g/mL$ )<sup>[2407]</sup>. Source: DA HUA JIAN MU *Dysoxylum macranthum*. Ref: 2407.

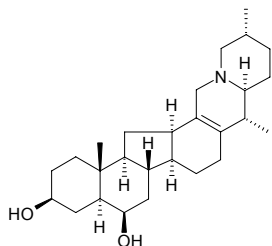


## E

**6657 Ebeienine**

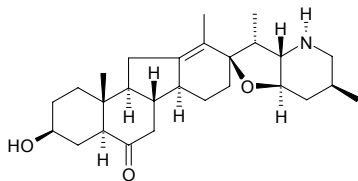
$C_{27}H_{43}NO_2$  (413.65). mp 274.5~278.5°C,  $[\alpha]_D = -2.9^\circ$  ( $c = 0.5$ , MeOH).

Source: XI BEI MU *Fritillaria imperialis* (bulb), ZI HUA E BEI BEI MU *Fritillaria ebeiensis* var. *purpurea*. Ref: 1521, 2201, 4217.

**6658 Ebeiensine**

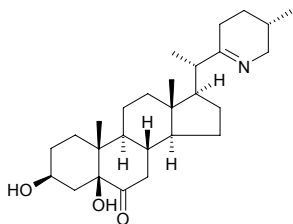
$C_{27}H_{41}NO_3$  (427.63). mp 228~230°C,  $[\alpha]_D = -38^\circ$  ( $c = 0.16$ ,  $CHCl_3$ ). Source:

E BEI BEI MU *Fritillaria ebeiensis*, AN HUI BEI MU *Fritillaria anhuiensis*, ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. Ref: 2201.

**6659 Ebeietinone**

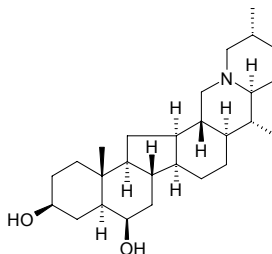
$C_{27}H_{43}NO_3$  (429.65). mp 199~203°C,  $[\alpha]_D = -53.3^\circ$  ( $c = 0.24$ ,  $CHCl_3$ ). Source:

ZI HUA E BEI BEI MU *Fritillaria ebeiensis* var. *purpurea*. Ref: 2201.

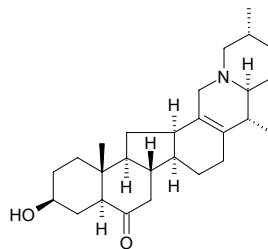
**6660 Ebeinine**

$C_{27}H_{45}NO_2$  (415.67). mp 114~115°C,  $[\alpha]_D = -45.0^\circ$  ( $c = 0.70$ , MeOH). Source:

E BEI BEI MU *Fritillaria ebeiensis*, ZI HUA E BEI BEI MU *Fritillaria ebeiensis* var. *purpurea*. Ref: 2201.

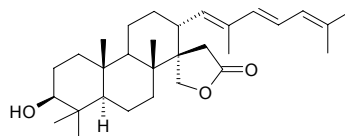
**6661 Ebeinone**

[125409-58-7]  $C_{27}H_{41}NO_2$  (411.63). mp 108~110°C,  $[\alpha]_D = -54.9^\circ$  ( $c = 0.47$ , MeOH). Source: E BEI BEI MU *Fritillaria ebeiensis*, XI BEI MU *Fritillaria imperialis* (bulb), ZI HUA E BEI BEI MU *Fritillaria ebeiensis* var. *purpurea*, ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. Ref: 2201, 4217.

**6662 Ebelin lactone**

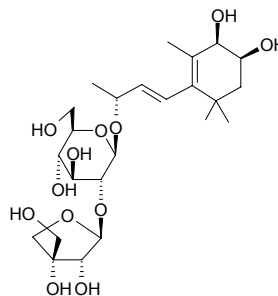
[3649-76-1]  $C_{30}H_{46}O_3$  (454.70). mp 182~185°C. Source: SUAN ZAO REN

*Ziziphus jujuba* var. *spinosa*. Ref: 2.

**6663 Ebracteatoside A**

$C_{24}H_{40}O_{12}$  (520.58). Amorphous powder,  $[\alpha]_D^{17} = -52.2^\circ$  ( $c = 2.0$ , MeOH).

Source: XIAO HUA LAO SHU LE *Acanthus ebracteatus* (aerial parts). Ref: 5211.

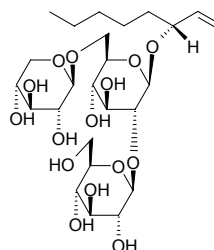
**6664 Ebracteatoside B**

(3*R*)-1-Octen-3-ol-3-*O*-β-*D*-xylopyranosyl-(1<sup>'''</sup>→6<sup>'</sup>)-*O*-[β-*D*-glucopyranosyl-

(1<sup>''</sup>→2<sup>'</sup>)]-*O*-β-*D*-glucopyranoside  $C_{25}H_{44}O_{15}$  (584.62). Amorphous powder,

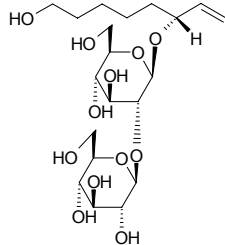
$[\alpha]_D^{22} = -45.0^\circ$  ( $c = 2.11$ , MeOH). Source: XIAO HUA LAO SHU LE

*Acanthus ebracteatus* (aerial parts). Ref: 5211.

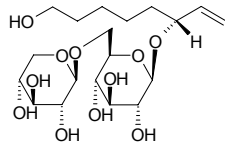


**6665 Ebracteatoside C**

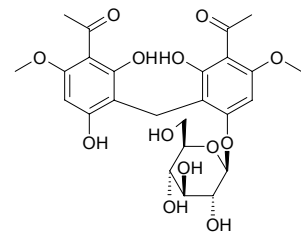
(6*R*)-7-Octene-1,6-diol 6-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)-*O*- $\beta$ -*D*-glucopyranoside C<sub>20</sub>H<sub>36</sub>O<sub>12</sub> (468.50). Amorphous powder,  $[\alpha]_D^{22} = -19.8^\circ$  ( $c = 2.62$ , MeOH). Source: XIAO HUA LAO SHU LE *Acanthus ebracteatus* (aerial parts). Ref: 5211.

**6666 Ebracteatoside D**

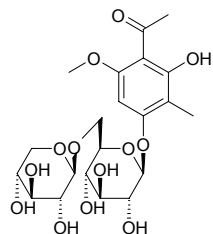
(6*R*)-7-Octene-1,6-diol 6-*O*- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 6)-*O*- $\beta$ -*D*-glucopyranoside C<sub>19</sub>H<sub>34</sub>O<sub>11</sub> (438.48). Amorphous powder,  $[\alpha]_D^{22} = -57.7^\circ$  ( $c = 0.35$ , MeOH). Source: XIAO HUA LAO SHU LE *Acanthus ebracteatus* (aerial parts). Ref: 5211.

**6667 Ebractelatinoside B**

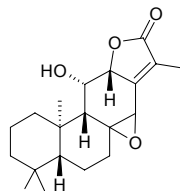
3,3'-Diacetyl-4,4'-dimethoxy-2,2',6,6'-tetrahydroxy diphenyl methane-6'-*O*- $\beta$ -*D*-glucopyranoside C<sub>25</sub>H<sub>30</sub>O<sub>13</sub> (538.51). Yellowish amorphous powder, mp 260–261°C. Source: YUE XIAN DA JI *Euphorbia ebracteolata*. Ref: 678.

**6668 Ebractelatinoside C**

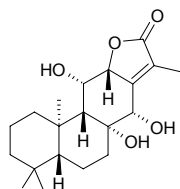
2,4-Dihydroxy-6-methoxy-3-methyl acetophenone 4-*O*- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside C<sub>21</sub>H<sub>30</sub>O<sub>13</sub> (490.47). White amorphous powder, mp 198°C. Source: YUE XIAN DA JI *Euphorbia ebracteolata*. Ref: 678.

**6669 Ebracteolatanolide A**

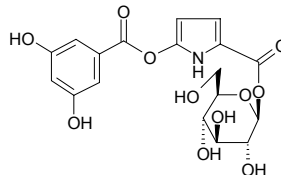
C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). White acicular crystals, mp 210°C. Source: YUE XIAN DA JI *Euphorbia ebracteolata*. Ref: 404.

**6670 Ebracteolatanolide B**

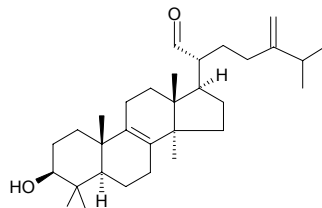
C<sub>20</sub>H<sub>30</sub>O<sub>5</sub> (350.46). White acicular crystals, mp 218°C. Source: YUE XIAN DA JI *Euphorbia ebracteolata*. Ref: 404.

**6671 Ebracteolatinoside A**

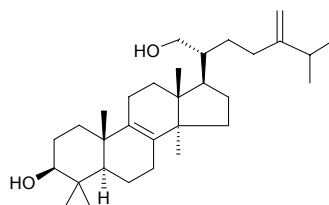
C<sub>18</sub>H<sub>19</sub>NO<sub>11</sub> (425.35). Sallow powder, mp 160°C. Source: YUE XIAN DA JI *Euphorbia ebracteolata*. Ref: 820.

**6672 Eburical**

C<sub>31</sub>H<sub>50</sub>O<sub>2</sub> (454.74). Source: A LI HONG *Fomes officinalis*. Ref: 6.

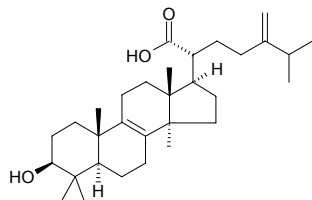
**6673 Eburicodiol**

C<sub>31</sub>H<sub>52</sub>O<sub>2</sub> (456.76). Source: A LI HONG *Fomes officinalis*. Ref: 6.

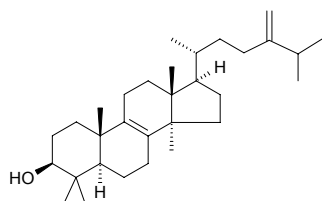


**6674 Eburicoic acid**

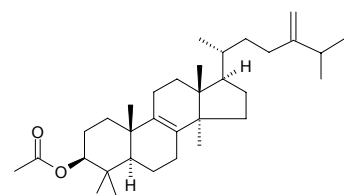
$C_{31}H_{50}O_3$  (470.74). mp 292~293°C. Source: A LI HONG *Fomes officinalis*, FU LING *Poria cocos*. Ref: 2.

**6675 Eburicol**

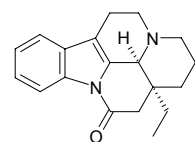
[6890-88-6]  $C_{31}H_{52}O$  (440.76). mp 158~159°C. Source: A LI HONG *Fomes officinalis*. Ref: 6.

**6676 Eburicyl acetate**

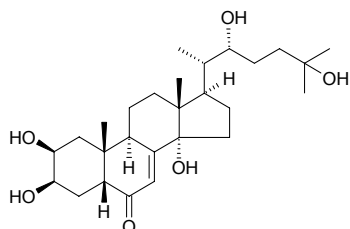
$C_{33}H_{54}O_2$  (482.80). mp 142~143°C. Source: A LI HONG *Fomes officinalis*. Ref: 6.

**6677 Eburnamonine**

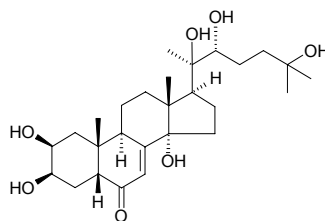
[4880-88-0]  $C_{19}H_{22}N_2O$  (294.40). Pharm: Vasodilator. Source: MAN CHANG CHUN HUA *Vinca minor*. Ref: 658.

**6678 Ecdysone**

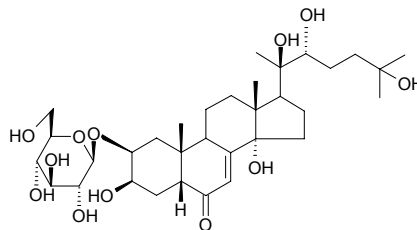
$\alpha$ -Ecdysone [3604-87-3]  $C_{27}H_{44}O_6$  (464.65). mp 242°C. Pharm: Insect ecdysone (badly inhibits growth of ovary in juvenile female fly). Source: BAI JIANG CAN *Bombyx mori* (in 1954, the compound was first isolated from the animal by A. Butenandt, et al.)<sup>[5505]</sup>, DA HUA JIAN QIU LUO *Lychnis fulgens*, DUO ZU JUE *Polypodium vulgare*, LUO YAN CAO *Lemmaphyllum microphyllum*, OU ZHOU JUE *Pteridium aquilinum*, SHUI LONG GU *Polypodium niponicum*, XIAO WU MAO JUE *Blechnum minus*, XIAO YE GUAN ZHONG *Matteuccia struthiopteris*, YUAN CAN E *Bombyx mori*, ZI QI *Osmunda japonica*. Ref: 6, 658, 5505.

**6679 Ecdysterone**

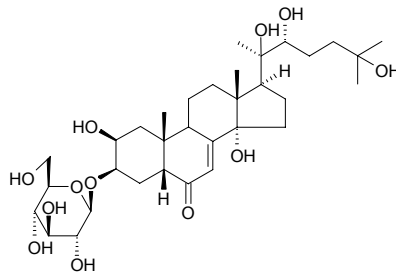
$\beta$ -Ecdysone  $C_{27}H_{44}O_7$  (480.65). mp 237.5~239.5°C. Pharm: Insect ecdysone; low toxin. Source: BAI MAO XIA KU CAO *Ajuga decumbens*, CANG BAI CHENG GOU FENG *Diploclisia glaucescens*, CHUAN NIU XI *Cyathula officinalis* (root: content = 0.057%)<sup>[5508]</sup>, DUN YE TU NIU XI *Achyranthes aspera* var. *indica* (root: content = 0.018%)<sup>[5508]</sup>, JI MAO SONG *Podocarpus imbricatus*, LOU LU *Rhaponticum uniflorum* (dried root: mean content of 3 origins = 0.3993%)<sup>[5508]</sup>, LUO HAN SONG YE *Podocarpus macrophyllum*, LUO YAN CAO *Lemmaphyllum microphyllum*, MA NIU XI *Cyathula capitata* (root: content = 0.046%)<sup>[5508]</sup>, NIU XI *Achyranthes bidentata* (root: mean content of 13 origins = 0.06%)<sup>[5508]</sup>, SANG YE *Morus alba*, SHUI LONG GU *Polypodium niponicum*, TU NIU XI *Achyranthes aspera*, WA WEI *Lepisorus thunbergianus*, XIAO YE GUAN ZHONG *Matteuccia struthiopteris*, YAN LING CAO *Trillium tschonoskii*, ZI QI *Osmunda japonica*, ZI SHAN *Taxus cuspidata*. Ref: 2, 6, 194, 580, 582, 658, 660, 5501, 5508.

**6680 20 $\beta$ -Ecdysterone 2-O- $\beta$ -D-glucopyranoside**

$C_{33}H_{54}O_{12}$  (642.79). White solid. Source: JIANG XI QING NIU DAN *Tinospora craveniana* (root). Ref: 4557.

**6681 Ecdysterone-3-O- $\beta$ -D-glucopyranoside**

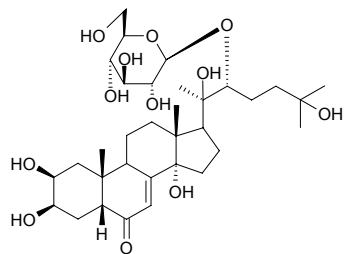
$C_{33}H_{54}O_{12}$  (642.79). White powder. Source: LOU LU *Rhaponticum uniflorum*. Ref: 444.



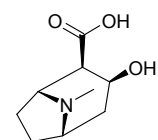


**6682 Ecdysterone-22-O-β-D-glucopyranoside**

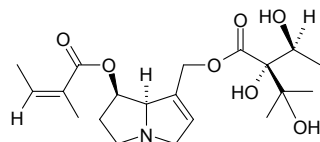
$C_{33}H_{54}O_{12}$  (642.79). White powder, mp 240~242°C. Source: MAO JIAN QIU LUO *Lychnis coronaria*. Ref: 2189.

**6683 Ecgonine**

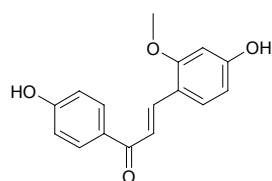
[481-37-8]  $C_9H_{15}NO_3$  (185.22). Pharm: Local anesthetic; supertoxic agent. Source: GU KE *Erythroxylum coca*. Ref: 658.

**6684 Echimidine**

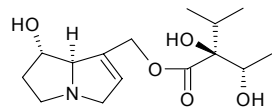
[520-68-3]  $C_{20}H_{31}NO_7$  (397.47). Gum,  $[\alpha]_D^{25} = +6.6^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). Pharm: Mutagen (drosophila); toxin (exhibits hepatic toxicity). Source: CHE QIAN YE LAN JI *Echium plantagineum*, DONG FANG XI MEN FEI CAO *Symphytum orientale*, KUAI JING XI MEN FEI CAO *Symphytum tuberosum*, XI MEN FEI CAO *Symphytum officinale* (root: yield = 0.00038%dw)<sup>[3039]</sup>, XIN FEI CAO *Symphytum caucasicum*. Ref: 658, 3039.

**6685 Echinatin**

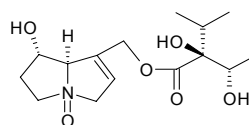
$C_{16}H_{14}O_4$  (270.29). Source: JI GAN CAO *Glycyrrhiza echinata* (cultured cells). Ref: 2431.

**6686 Echinatine**

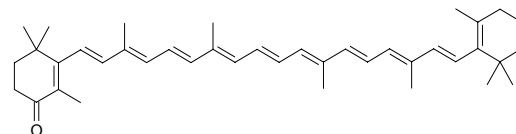
Indicine [480-83-1]  $C_{15}H_{25}NO_5$  (299.37). mp 109~110°C, 97~98°C. Pharm: Ganglionic blocker; enhances blood pressure increase caused by adrenaline; toxin (low toxicity in mus with single iv dose, but continuous injection causes liver denaturation). Source: DA WEI YAO *Heliotropium indicum*, GOU SHI HUA *Cynoglossum amabile*, YAO YONG DAO TI HU *Cynoglossum officinale*, XIN FEI CAO *Symphytum caucasicum*. Ref: 6, 658.

**6687 Echinatine N-oxide**

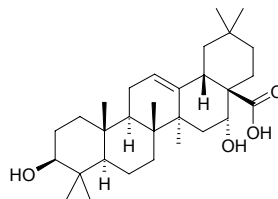
Heliotridine viridiflorate N-oxide [20267-93-0]  $C_{15}H_{25}NO_6$  (315.37). Source: YAO YONG DAO TI HU *Cynoglossum officinale*. Ref: 6.

**6688 Echinenone**

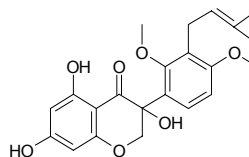
[432-68-8]  $C_{40}H_{54}O$  (550.88). mp 192~193°C. Source: HAI XIA *Penaeus orientalis*. Ref: 6.

**6689 Echinocystic acid**

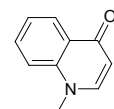
Echinaystic acid  $C_{30}H_{48}O_4$  (472.71). Pharm: Cytotoxic inactive (HL-60,  $IC_{50} > 100\mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1E-4 \pm 1.1E-4)\mu\text{mol/L}$ ; MCF7,  $IC_{50} > 100\mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6)\mu\text{mol/L}$ ; Bel7402,  $IC_{50} > 100\mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1)\mu\text{mol/L}$ ; BGC823,  $IC_{50} > 100\mu\text{mol/L}$ ; HeLa,  $IC_{50} > 100\mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1)\mu\text{mol/L}$ ; KB,  $> 100\mu\text{mol/L}$ , Taxol,  $IC_{50} > 100\mu\text{mol/L}$ )<sup>[5015]</sup>; apoptosis inducer inactive (HL-60 cells,  $15\mu\text{mol/L}$ , sub-G1 population =  $(8.7 \pm 4.7)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ )<sup>[5015]</sup>. Source: HUA NAN ZAO JIA *Gleditsia fera* (fruit: content = 0.0224%)<sup>[5508]</sup>, ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit: mean content = 0.1168%)<sup>[5508]</sup>. Ref: 5015, 5508.

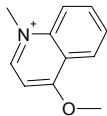
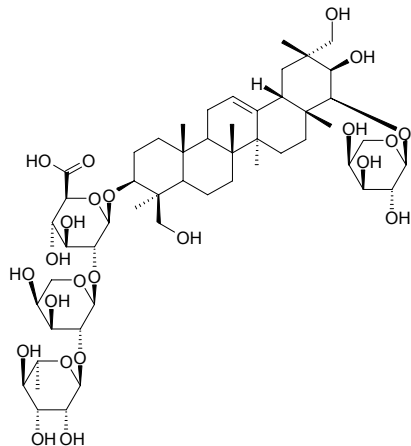
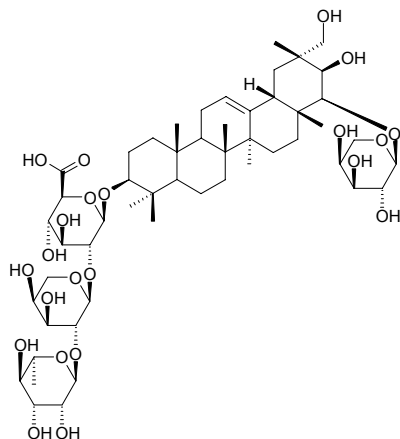
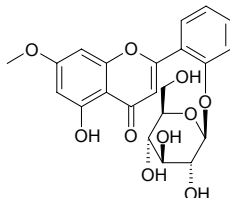
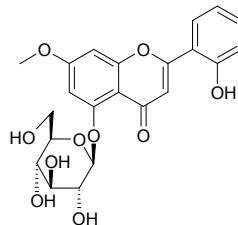
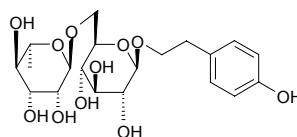
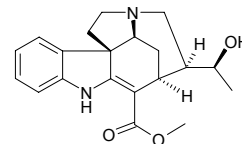
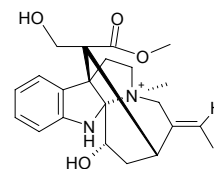
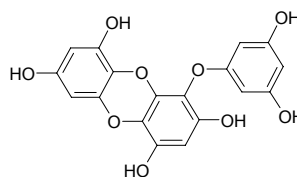
**6690 Echinisoiflavanone**

$C_{22}H_{24}O_7$  (400.43). Pharm: Anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>. Source: *Echinosophora koreensis* (root). Ref: 1521, 4415.

**6691 Echinopsine**

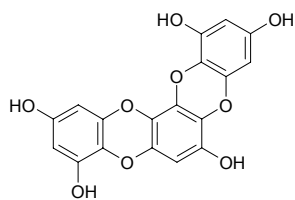
[83-54-5]  $C_{10}H_9NO$  (159.19). mp ( $\alpha$ ) 152°C, ( $\beta$ ) 135°C. Pharm: Enhances myocardial contractility and reduces scope of contraction (frog heart *in vitro*, narcosis cat, *in vivo*); enhances tension of intestinal canal (cat, *in vitro*, but inhibits the tension in rbt); antihypertensive (narcosis cat); similar action with strychnine; vasodilator (rbt ear, *in vitro*). Source: XIN JIANG LAN CI TOU *Echinops ritro*, WU ZHU YU *Evodia rutaecarpa* (fruit). Ref: 4, 6, 658, 660, 5031.



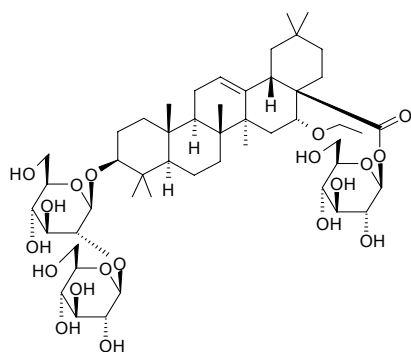
**6692 Echinorine**[18095-64-2] C<sub>11</sub>H<sub>12</sub>NO<sup>+</sup> (174.22). Source: XIN JIANG LAN CI TOU*Echinops ritro*. Ref: 6, 660.**6693 Echinophoroside A<sub>1</sub>**3-*O*- $\alpha$ -L-Rhamnopyranosyl(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranosyl kudzuapogenol A 22-*O*- $\alpha$ -L-arabinopyranoside C<sub>52</sub>H<sub>84</sub>O<sub>23</sub> (1077.24). Source:CHAO XIAN LANG YA CI *Sophora koreensis* (root). Ref: 4056.**6694 Echinophoroside B**3-*O*- $\alpha$ -L-Rhamnopyranosyl(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranosyl abrisapogenol C 22-*O*- $\alpha$ -L-arabinopyranoside C<sub>52</sub>H<sub>84</sub>O<sub>22</sub> (1061.24). Source:CHAO XIAN LANG YA CI *Sophora koreensis* (root). Ref: 4056.**6695 Echioidinin-2'-*O*- $\beta$ -D-glucopyranoside**C<sub>22</sub>H<sub>22</sub>O<sub>10</sub> (446.41). Yellow needles (MeOH), mp 276~278°C (dec). Source:*Andrographis rothii* (whole herb). Ref: 4311.**6696 Echioidinin-5-*O*- $\beta$ -D-glucopyranoside**C<sub>22</sub>H<sub>22</sub>O<sub>10</sub> (446.41). Pale yellow solid (MeOH), mp 245~246°C, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = -70.1° (c = 0.2, C<sub>5</sub>H<sub>5</sub>N). Source: *Andrographis neesiana* (whole herb). Ref: 4357.**6697 Echipuroside A**C<sub>20</sub>H<sub>30</sub>O<sub>11</sub> (446.46). White powder, mp 108~110°C. Source: ZI HUA SONG GUO JU *Echinacea purpurea*. Ref: 2219.**6698 Echitamidine**[38681-90-2] C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O<sub>3</sub> (340.43). mp 244°C (dec). Source: PEN JIA SHU *Winchia calophylla*, XIANG PI MU *Alstonia scholaris*. Ref: 270, 1521.**6699 Echitamine**C<sub>22</sub>H<sub>29</sub>N<sub>2</sub>O<sub>4</sub> (385.49). Hydrate: (C<sub>22</sub>H<sub>30</sub>N<sub>2</sub>O<sub>5</sub>), white crystals, mp 206°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -29° (ethanol); chloride: long acicular crystals (water), mp 295°C, [ $\alpha$ ]<sub>D</sub><sup>15</sup> = -58°.Pharm: Ganglionic blocker (curariform action); diuretic; antihypertensive (high dose). Source: DAO ZHUANG JI GU CHANG SHAN *Alstonia spatulata*, GAN LAO JI GU CHANG SHAN *Alstonia boonei*, XIANG PI MU *Alstonia scholaris*, ZHUANG GUAN JI GU CHANG SHAN *Alstonia spectabilis*. Ref: 6, 661.**6700 Eckol**[88798-74-7] C<sub>18</sub>H<sub>12</sub>O<sub>9</sub> (372.29). Colorless flake crystals (acetone-water), mp 243~244°C; Amorphous powder. Pharm: Antifibrinolysis ( $\alpha_2$ -macroglobulin, IC<sub>50</sub> = 2.5 $\mu$ g/mL,  $\alpha_2$ -fibrinolysin, IC<sub>50</sub> = 1.6 $\mu$ g/mL); antithrombotic; tyrosinase inhibitor; antioxidant (DPPH scavenger, IC<sub>50</sub> = 11.5 $\mu$ mol/L, control Ascorbic acid, IC<sub>50</sub> = 10.3 $\mu$ mol/L)<sup>[4376]</sup>. Source: HEI KUN BU *Ecklonia kurome*, Brown alga *Ecklonia stolonifera*. Ref: 1019, 4376.

**6701 Eckstonolol**

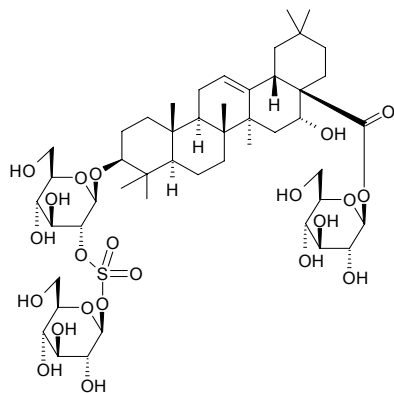
$C_{18}H_{10}O_9$  (370.27). Off-white powder,  $[\alpha]_D^{20} = 0^\circ$  ( $c = 0.008$ , MeOH). **Pharm:** Antioxidant (DPPH scavenger,  $IC_{50} = 8.8 \mu\text{mol/L}$ , control Ascorbic acid,  $IC_{50} = 10.3 \mu\text{mol/L}$ ). **Source:** Brown alga *Ecklonia stolonifera*. **Ref:** 4376.

**6702 Eclalbasaponin XI**

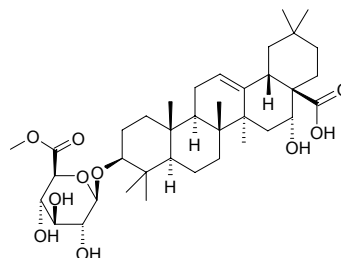
3-*O*-[ $\beta$ -*D*-Glucopyranosyl(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranosyl]-16 $\alpha$ -ethoxy-olean-12-ene-28-oic acid 28-*O*- $\beta$ -*D*-glucopyranoside  $C_{50}H_{82}O_{19}$  (987.20). White crystals mp 231~233°C. **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 2124.

**6703 Eclalbasaponin XII**

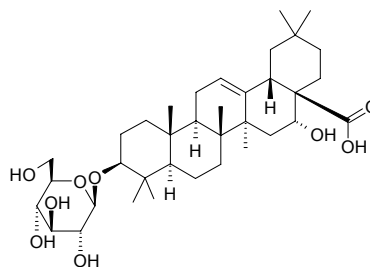
3-*O*-[(2-*O*-Sulfuryl- $\beta$ -*D*-glucopyranosyl)(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranosyl]-echinocystic acid 28-*O*- $\beta$ -*D*-glucopyranoside  $C_{48}H_{78}O_{22}S$  (1039.21). White amorphous powder, mp 130~131°C. **Pharm:** Induces distortion of mycelial (mold of rice blast). **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 2124.

**6704 Eclalbasaponin XIII**

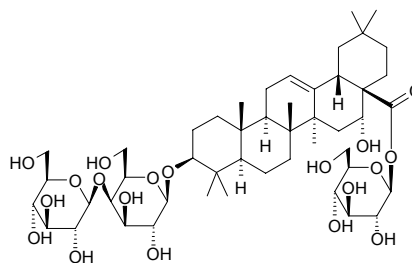
Echinocystic acid 3-*O*-(6'-*O*-methyl)- $\beta$ -*D*-glucuronopyranoside  $C_{37}H_{58}O_{10}$  (662.87). White powdery crystals, mp 195~198°C. **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 2266.

**6705 Ecliptasaponin A**

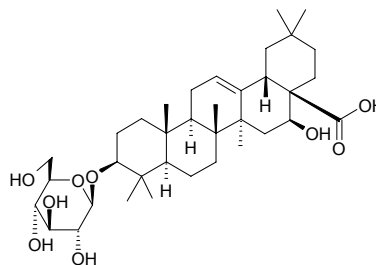
3 $\beta$ ,16 $\alpha$ -Dihydroxyolean-12-ene-28-oic acid 3-*O*- $\beta$ -*D*-glucopyranoside  $C_{36}H_{58}O_9$  (634.86). White acicular crystals, mp 237~238°C (methanol). **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 349.

**6706 Ecliptasaponin B**

3 $\beta$ -*O*-[( $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl)-16 $\alpha$ -hydroxyolean-12-ene-28-oic acid-28-*O*- $\beta$ -*D*-glucopyranoside  $C_{48}H_{78}O_{19}$  (959.15). White acicular crystals, mp 220~221°C (methanol). **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 349.

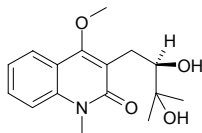
**6707 Ecliptasaponin D**

$C_{36}H_{58}O_9$  (634.86). White powder, mp 240~243°C. **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 392.

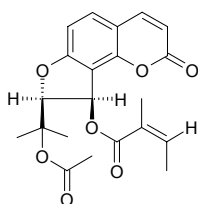


**6708 Edulinine**

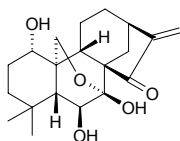
[27495-36-9] C<sub>16</sub>H<sub>21</sub>NO<sub>4</sub> (291.35). mp 140–142°C. **Pharm:** Analgesic; CNS depressant; anti-epilepsy (rat, brain hippocampus section CA1, eximine-induced epilepsy); cytotoxic (P<sub>388</sub> cell line, ED<sub>50</sub> = 27.1 μg/mL, control Mithramycin, ED<sub>50</sub> = 0.06 μg/mL; HT29, ED<sub>50</sub> = 43.6 μg/mL, Mithramycin, ED<sub>50</sub> = 0.07 μg/mL; A549, ED<sub>50</sub> = 25.5 μg/mL, Mithramycin, ED<sub>50</sub> = 0.08 μg/mL)<sup>[5405]</sup>. **Source:** CHOU CAO *Ruta graveolens*, SI ROU TUO GUO YE MI ZHU YU *Melicope semecarpifolia*. **Ref:** 6, 1625, 1626, 5405.

**6709 Edultin**

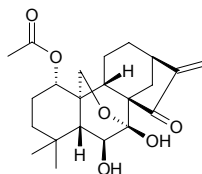
Cnidimine [15591-75-0] C<sub>21</sub>H<sub>22</sub>O<sub>7</sub> (386.41). **Pharm:** Reversing MDR of KBV200 cells (obviously)<sup>[2787]</sup>. **Source:** SHE CHUANG ZI *Cnidium monnieri* (ripe seed: mean content of 6 origins = 0.652%<sup>[5508]</sup>). **Ref:** 6, 2787, 5508.

**6710 Effusanin A**

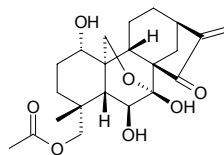
C<sub>20</sub>H<sub>28</sub>O<sub>5</sub> (348.44). Colorless needles (EtOH), mp 252–256°C, [α]<sub>D</sub><sup>23</sup> = –53.8° (c = 0.4, EtOH); mp 262–265°C, [α]<sub>D</sub> = –76.0° (c = 0.05, EtOH); mp 266–268°C, [α]<sub>D</sub><sup>20</sup> = –79.7° (c = 0.35, C<sub>5</sub>H<sub>5</sub>N). **Pharm:** Cytotoxic (DNA-damaging activity, mutant yeast strain RAD 52Y, IC<sub>12</sub> = 20 μg/mL, control Streptonigrin, IC<sub>12</sub> = 0.4 μg/mL; wild type yeast strain RAD+, IC<sub>12</sub> = 50 μg/mL, Streptonigrin, IC<sub>12</sub> = 1.0 μg/mL)<sup>[5348]</sup>. **Source:** KAI ZHAN XIANG CHA CAI *Isodon effusa*, ZHOU YE XIANG CHA CAI *Isodon rugosus* [Syn. *Rabdosia rugosa*]. **Ref:** 4067, 5348.

**6711 Effusanin B**

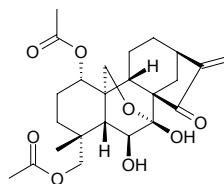
C<sub>22</sub>H<sub>30</sub>O<sub>6</sub> (390.48). Colorless prisms (acetone–hexane), mp 254–256°C, [α]<sub>D</sub><sup>23</sup> = –60° (c = 0.1, MeOH); mp 258–260°C, [α]<sub>D</sub> = –66.7° (c = 0.027, EtOH); mp 264–267°C, [α]<sub>D</sub><sup>20</sup> = –61° (CHCl<sub>3</sub>). **Pharm:** Cytotoxic (DNA-damaging activity, mutant yeast strain RAD 52Y, IC<sub>12</sub> = 12 μg/mL, control Streptonigrin, IC<sub>12</sub> = 0.4 μg/mL; wild type yeast strain RAD+, IC<sub>12</sub> = 35 μg/mL, Streptonigrin, IC<sub>12</sub> = 1.0 μg/mL)<sup>[5348]</sup>. **Source:** KAI ZHAN XIANG CHA CAI *Isodon effusa*, ZHOU YE XIANG CHA CAI *Isodon rugosus* [Syn. *Rabdosia rugosa*]. **Ref:** 4067, 5348.

**6712 Effusanin C**

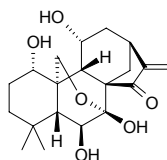
C<sub>22</sub>H<sub>30</sub>O<sub>7</sub> (406.48). mp 243–245°C, [α]<sub>D</sub><sup>21</sup> = –54.0° (c = 0.46, C<sub>5</sub>H<sub>5</sub>N). **Source:** KAI ZHAN XIANG CHA CAI *Isodon effusa*. **Ref:** 4067.

**6713 Effusanin D**

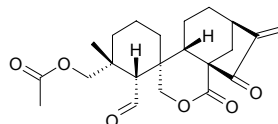
C<sub>24</sub>H<sub>32</sub>O<sub>8</sub> (448.52). mp 188–190°C, [α]<sub>D</sub><sup>21</sup> = –28.2° (c = 0.41, CHCl<sub>3</sub>). **Source:** KAI ZHAN XIANG CHA CAI *Isodon effusa*. **Ref:** 4067.

**6714 Effusanin E**

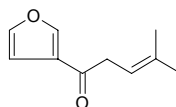
C<sub>20</sub>H<sub>28</sub>O<sub>6</sub> (364.44). Colorless prisms (EtOH), mp 231–235°C, mp 240–242°C, [α]<sub>D</sub><sup>23</sup> = –28.2° (c = 0.06, EtOH); [α]<sub>D</sub> = –81.3° (c = 0.28, C<sub>5</sub>H<sub>5</sub>N); mp 250–252°C, [α]<sub>D</sub><sup>21</sup> = –81.3° (c = 0.20, C<sub>5</sub>H<sub>5</sub>N). **Pharm:** Cytotoxic (DNA-damaging activity, mutant yeast strain RAD 52Y, IC<sub>12</sub> = 95 μg/mL, control Streptonigrin, IC<sub>12</sub> = 0.4 μg/mL; wild type yeast strain RAD+, IC<sub>12</sub> > 100 μg/mL, Streptonigrin, IC<sub>12</sub> = 1.0 μg/mL)<sup>[5348]</sup>. **Source:** KAI ZHAN XIANG CHA CAI *Isodon effusa*, SHAN DI XIANG CHA CAI *Isodon oresbia* (aerial parts), ZHOU YE XIANG CHA CAI *Isodon rugosus* [Syn. *Rabdosia rugosa*]. **Ref:** 3808, 4067, 5348.

**6715 Effusin**

C<sub>22</sub>H<sub>28</sub>O<sub>6</sub> (388.46). mp 211–213°C, [α]<sub>D</sub><sup>35</sup> = +21° (c = 1.12, C<sub>5</sub>H<sub>5</sub>N). **Source:** KAI ZHAN XIANG CHA CAI *Isodon effusa*. **Ref:** 4067.

**6716 Egomaketone**

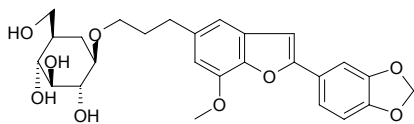
[59204-74-9] C<sub>10</sub>H<sub>12</sub>O<sub>2</sub> (164.21). bp 124–126°C/20mmHg. **Source:** BAI SU ZI *Perilla frutescens*, ZI SU GENG *Perilla frutescens* var. *arguta*. **Ref:** 6, 660.



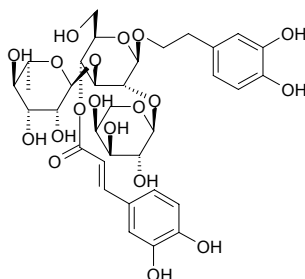
**6717 Egonol glucoside**

$C_{26}H_{30}O_9$  (486.52). Viscous yellowish oil,  $[\alpha]_D^{25} = -15.2^\circ$  ( $c = 0.6$ , MeOH).

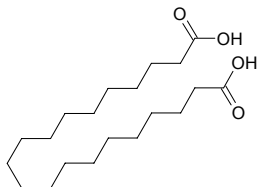
Source: RI BEN AN XI XIANG JING PI *Styrax japonica*. Ref: 2546.

**6718 Ehrenoside**

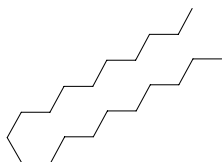
[106323-63-1]  $C_{34}H_{44}O_{19}$  (756.72). Amorphous powder,  $[\alpha]_D^{23} = -58^\circ$  ( $c = 0.16$ , MeOH). Pharm: Antioxidant (DPPH scavenger, 0.5mmol/L, InRt = 50%, control BHA, 0.5mmol/L, InRt = 30%)<sup>[4191]</sup>. Source: SHU CHI PO PO NA *Veronica pectinata* var. *glandulosa* (aerial parts). Ref: 4191.

**6719 Eicosandioic acid**

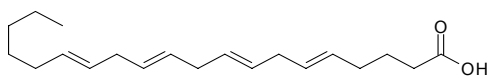
[2424-92-2]  $C_{20}H_{38}O_4$  (342.52). mp 122–123°C. Source: LIN BEI ZI *Toxicodendron succedaneum* [Syn. *Rhus succedanea*], QI ZI *Rhus verniciflua* [Syn. *Toxicodendron verniciflum*]. Ref: 6.

**6720 Eicosane**

*n*-Eicosane [112-95-8]  $C_{20}H_{42}$  (282.56). Source: DONG CHONG XIA CAO *Cordyceps sinensis*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], ROU CONG RONG *Cistanche deserticola*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2.

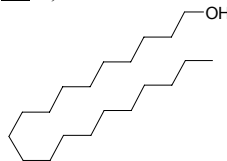
**6721 Eicosanetetraenoic acid**

$C_{20}H_{32}O_2$  (304.48). mp  $-49.5^\circ\text{C}$ . Source: NIU GAN *Bos taurus domesticus*; *Bubalus bubalis*, ZI CAI *Porphyra tenera*. Ref: 6.

**6722 Eicosanol**

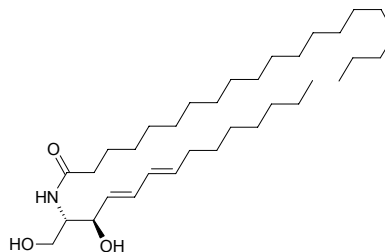
1-Eicosanol [629-96-9]  $C_{20}H_{42}O$  (298.56). mp 65.5°C, bp 220°C/3mmHg.

Source: KU CAO *Vallisneria spiralis*, ZI CAO *Lithospermum erythrorhizon*. Ref: 6, 660.

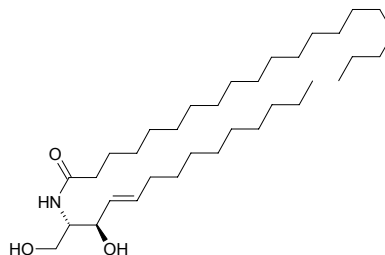
**6723 (4E,6E,2S,3R)-2-N-Eicosanoyl-4,6-tetradecasphingadienine**

$C_{34}H_{65}NO_3$  (535.9). White powder; mp 73.6°C,  $[\alpha]_D^{20} = -3.2^\circ$  ( $c = 0.05$ ,  $\text{CHCl}_3$ ). Pharm: Neurotrophic (neurite outgrowth promoter, measuring neurite length of PC12 cell, 10μmol/L, activity greater than that of 50ng/mL NGF).

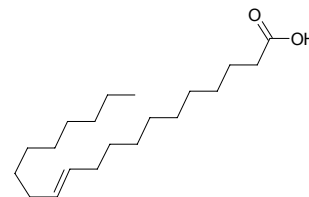
Source: BAI JIANG CAN *Bombyx mori*. Ref: 4684.

**6724 (4E,2S,3R)-2-N-Eicosanoyl-4-tetradecasphinganine**

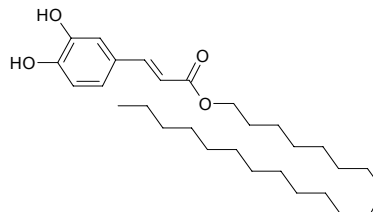
$C_{34}H_{67}NO_3$  (537.92). White powder; mp 81.7°C,  $[\alpha]_D^{20} = -4.0^\circ$  ( $c = 0.082$ ,  $\text{CHCl}_3$ ). Source: BAI JIANG CAN *Bombyx mori*. Ref: 4684.

**6725 11-Eicosenoic acid**

[5561-99-9]  $C_{20}H_{38}O_2$  (310.52). Source: QIANG HUO *Notopterygium incisum*. Ref: 2.

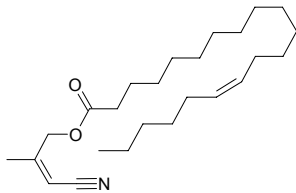
**6726 Eicosyl caffeate**

$C_{29}H_{48}O_4$  (460.70). Source: ZI CAO *Lithospermum erythrorhizon*. Ref: 2193.

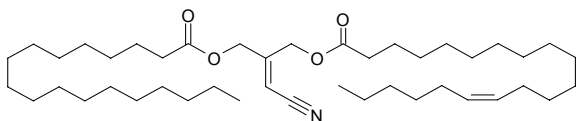


**6727 3-O-14,15-Eicosylenoyl-1-cyano-2-methyl-1,2-propene**

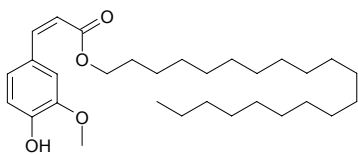
$C_{25}H_{43}NO_2$  (389.63). Colorless wax. Source: LUAN SHU *Koelreuteria paniculata*. Ref: 849.

**6728****3-O-14,15-Eicosylenoyl-4-O-stearoyl-1-cyano-2-oxymethyl-1,2-propene**

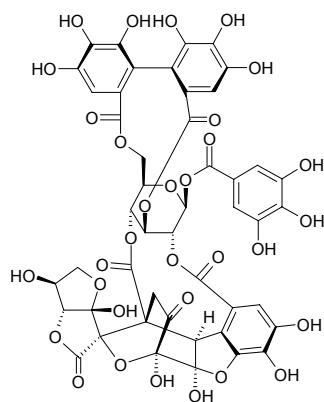
$C_{43}H_{77}NO_4$  (672.10). Colorless wax. Source: LUAN SHU *Koelreuteria paniculata*. Ref: 849.

**6729 Eicosyl ferulate**

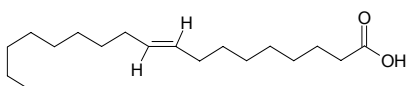
$C_{30}H_{50}O_4$  (474.73). Source: YA MA ZI *Linum usitatissimum*. Ref: 6.

**6730 Elaecarpusin**

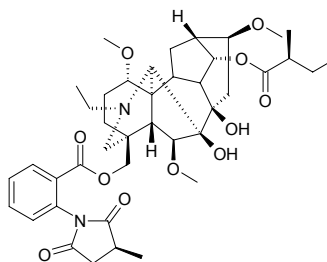
$C_{47}H_{34}O_{32}$  (1110.78). Source: AN MO LE *Phyllanthus emblica* (fruit juice). Ref: 3094.

**6731 Elaidic acid**

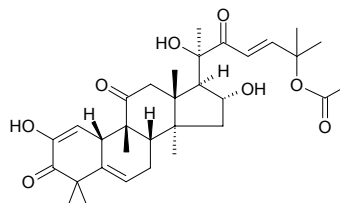
*trans*-9-Octadecenoic acid [112-79-8]  $C_{18}H_{34}O_2$  (282.47). mp 44.5°C. Source: DENG LONG CAO *Physalis peruviana*, HU TAO YE *Juglans regia*. Ref: 6.

**6732 Elanine**

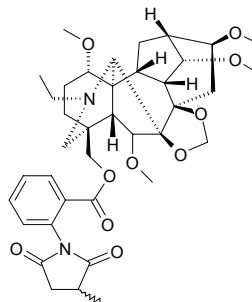
$C_{41}H_{56}N_2O_{11}$  (752.91). Source: HEI SHUI CUI QUE HUA BIAN ZHONG *Delphinium potaninii* var. *juifengshanense* (root). Ref: 4227.

**6733 Elaterin**

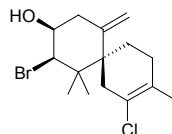
Cucurbitacin [18444-66-1]  $C_{32}H_{44}O_8$  (556.70). mp 234°C. Source: GUA DI *Cucumis melo*, SI GUA ZI *Luffa cylindrica*. Ref: 6.

**6734 Elatine**

[26000-16-8]  $C_{38}H_{50}N_2O_{10}$  (694.83). mp 233~235°C. Pharm: Ganglionic blocker; muscle relaxant (competitive); toxin. Source: FEI YAN CAO *Consolida ajacis* [Syn. *Delphinium ajacis*], GAO FEI YAN CAO *Delphinium elatum*. Ref: 6, 658.

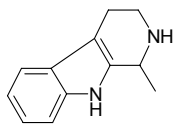
**6735 Elatol**

$C_{15}H_{22}BrClO$  (333.70). Oil,  $[\alpha]_D^{24} = +75.3^\circ$  ( $c = 0.318$ , MeOH). Pharm: Antibacterial (*Clostridium cellobioparum*, MIC = 5µg/disc; *Proteus mirabilis*, MIC = 5µg/disc; *Flavobacterium helmiphilum*, MIC = 10µg/disc; *Chromobacterium violaceum*, *Clostridium fallax*, *Clostridium novyi*, *Clostridium sordellii*, *Escherichia coli*, *Enterobacter aerogenes*, *Shigella flexneri*, *Vibrio cholerae*, *Vibrio parahaemolyticus*, *Vibrio vulnificus*, MIC = 15~30µg/disc)<sup>[5183]</sup>. Source: GAO AO DING ZAO *Laurencia elata* (the compound was isolated from the plant by J.J.Sions, et al. in 1974)<sup>[5505]</sup>, LUE DA AO DING ZAO *Laurencia majuscula*. Ref: 5183, 5505.

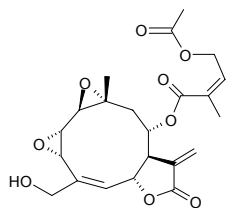


**6736 Eleagnine**

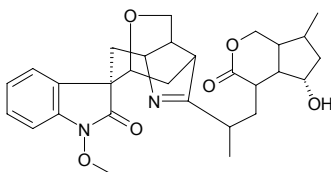
Tetrahydroharman [525-40-6] C<sub>12</sub>H<sub>14</sub>N<sub>2</sub> (186.26). mp 180.0–181.5°C; 178–180°C. Source: LU ZHU GEN *Arundo donax*, SHA ZAO SHU PI *Elaeagnus angustifolia*. Ref: 6.

**6737 Eleganin**

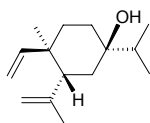
[57498-84-7] C<sub>22</sub>H<sub>26</sub>O<sub>9</sub> (434.45). mp 142–143°C, [α]<sub>D</sub><sup>22</sup> = –108°. Pharm: Antineoplastic; cytotoxic. Source: HUA LI SHE BIAN JU *Liatris elegans*, CU CAO SHE BIAN JUJU *Liatris scabra*. Ref: 658.

**6738 Elegansamine**

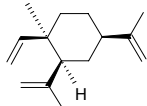
[120090-58-6] C<sub>29</sub>H<sub>36</sub>N<sub>2</sub>O<sub>6</sub> (508.62). mp 172–173°C. Source: GOU WEN *Gelsemium elegans*. Ref: 13.

**6739 Elema-1,3-dien-7-ol**

(+)-(1*R*,3*R*,4*R*)-4-Ethenyl-4-methyl-3-(1-methylethenyl)-1-(1-methylethyl)-cyclohexanol C<sub>15</sub>H<sub>26</sub>O (222.37). Colorless oil. Source: YING ZHI YE TAI *Lepidozia vitrea* (essential oil). Ref: 5209.

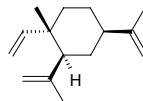
**6740 (-)-cis-β-Elemene**

C<sub>15</sub>H<sub>24</sub> (204.36). Colorless oil. Source: BO BAN HE YE TAI *Scapania undulata* (essential oil). Ref: 3752.

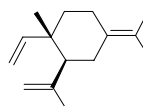
**6741 β-Elemene**

C<sub>15</sub>H<sub>24</sub> (204.36). bp 117–124°C/15.5mmHg. Pharm: Cytotoxic (leukemia cell, IC<sub>50</sub> = 33.5 μg/mL); antineoplastic (animal model, EAC ascites tumour, ARS ascites tumour, YAS ascites tumour, S<sub>180</sub> ascites tumour). Source: BING PIAN *Dryobalanops aromatica*, CANG ZHU *Attractylodes lancea*, DONG LING CAO *Rabdosia rubescens*, DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*],

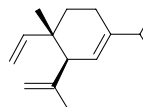
HONG CHAI HU *Bupleurum scorzonerifolium*, HUANG HUA HAO *Artemisia annua*, HUO XIANG *Agastache rugosus*, JING JIE *Schizonepeta tenuifolia* [Syn. *Nepeta tenuifolia*], MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *Tosana*, SHENG JIANG *Zingiber officinale*, WU WEI ZI *Schisandra chinensis*, YIN CHEN HAO *Artemisia capillaris*. Ref: 2, 5, 660, 3932, 5501.

**6742 γ-Elemene**

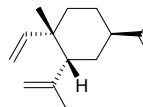
[30824-67-0] C<sub>15</sub>H<sub>24</sub> (204.36). Source: HUANG HUA HAO *Artemisia annua*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], SHENG JIANG *Zingiber officinale*. Ref: 2, 660.

**6743 δ-Elemene**

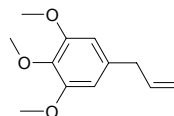
[20307-84-0] C<sub>15</sub>H<sub>24</sub> (204.36). bp 107°C/10mmHg. Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 2.

**6744 cis-β-Elemene diastereomer**

C<sub>15</sub>H<sub>24</sub> (204.36). Colorless oil. Source: BO BAN HE YE TAI *Scapania undulata* (essential oil). Ref: 3752.

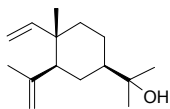
**6745 Elemicin**

[487-11-6] C<sub>12</sub>H<sub>16</sub>O<sub>3</sub> (208.26). bp 144–147°C/10mmHg. Pharm: Anesthetic (mus, rbt, cat, and dog, iv); platelet aggregation inhibitor (rbt). Source: BAN KE HU JIAO *Piper banksii*, CHANG XIANG MAO *Cymbopogon procerus*, DU HENG *Asarum forbesii*, GAO DA HU JIAO *Macropiper excelsum*, HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*], HUI HUI SU GENG *Perilla frutescens* var. *crispa*, JIAN ZI SU *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], JIAN ZI SU YE *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum* (whole herb: content scope = 0.011%–0.069%)<sup>[5501]</sup>, NAN HE SHI *Daucus carota*, SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpium officinale*], SHUANG YE XI XIN *Asarum caulescens*, SI JING JIE BA DOU *Croton nepetaefolius*, XI XIN *Asarum sieboldii*, YE XIANG MAO *Cymbopogon goeringii*, YUN NAN ZHANG *Cinnamomum glanduliferum*, ZHAO WA GAN LAN *Canarium commune*. Ref: 2, 658, 660, 2537, 5501.

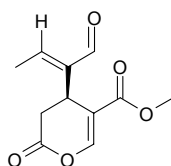


**6746 Elemol**

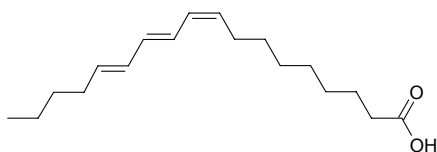
[32142-08-8] C<sub>15</sub>H<sub>26</sub>O (222.37). mp 52.5~53.5°C. Source: BEI CANG ZHU *Atractylodes chinensis*, CANG ZHU *Atractylodes lancea*, HOU PO *Magnolia officinalis*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], SHENG JIANG *Zingiber officinale*. Ref: 2, 660.

**6747 Elenolide**

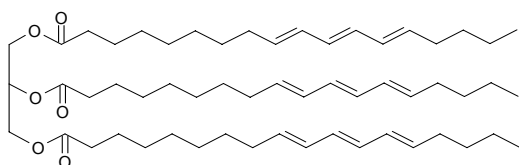
[24582-91-0] C<sub>11</sub>H<sub>12</sub>O<sub>5</sub> (224.22). Acicular crystals (hot ethanol), mp 155.2°C, [α]<sub>D</sub><sup>20</sup> = +360° (chloroform). Pharm: Antihypertensive. Source: YOU GAN LAN *Olea europaea*. Ref: 661.

**6748 α-Eleostearic acid**

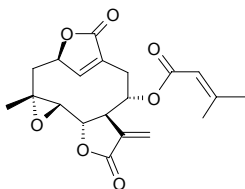
[506-23-0] C<sub>18</sub>H<sub>30</sub>O<sub>2</sub> (278.44). Source: TONG YOU *Aleurites cordata* [Syn. *Aleurites fordii*]. Ref: 658.

**6749 α-Eleostearin**

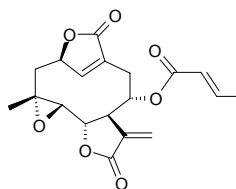
C<sub>57</sub>H<sub>92</sub>O<sub>6</sub> (873.37). Source: TONG YOU *Aleurites cordata* [Syn. *Aleurites fordii*]. Ref: 6.

**6750 Elephantin**

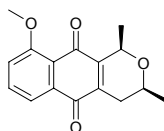
[21899-50-3] C<sub>20</sub>H<sub>22</sub>O<sub>7</sub> (374.39). mp 242~244°C, [α]<sub>D</sub><sup>27</sup> = -380°. Pharm: Antineoplastic (rat, W<sub>256</sub>, 50~100mg/kg; mus, P<sub>388</sub>); cytotoxic (KB, ED<sub>50</sub> = 0.28~2.00μg/mL); plant growth regulator. Source: GAO DI DAN CAO *Elephantopus elatus*. Ref: 661.

**6751 Elephantopin**

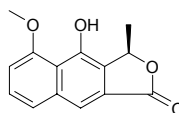
[13017-11-3] C<sub>19</sub>H<sub>20</sub>O<sub>7</sub> (360.37). mp 262~264°C, [α]<sub>D</sub><sup>25</sup> = -398°. Pharm: Antineoplastic (rat, W<sub>256</sub>, 50~100mg/kg; mus, P<sub>388</sub>); cytotoxic (KB, ED<sub>50</sub> = 0.28~2.00μg/mL). Source: GAO DI DAN CAO *Elephantopus elatus*. Ref: 661.

**6752 Eleutherin**

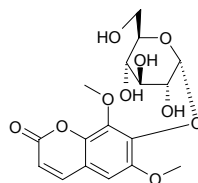
[478-36-4] C<sub>16</sub>H<sub>16</sub>O<sub>4</sub> (272.30). Orange crystals, mp 173~175°C, [α]<sub>D</sub><sup>34</sup> = 345.6° (chloroform). Pharm: Antibacterial (*Staphylococcus aureus*, *Mycobacterium smegmatis*); increases coronary flow. Source: XIAO HONG SUAN *Eleutherine americana*. Ref: 661.

**6753 Eleutherol**

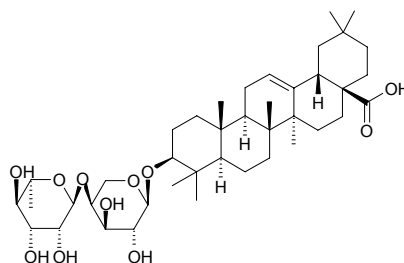
[480-00-2] C<sub>14</sub>H<sub>12</sub>O<sub>4</sub> (244.25). Pharm: Increases coronary flow. Source: XIAO HONG SUAN *Eleutherine americana*. Ref: 658.

**6754 Eleutheroside B<sub>1</sub>**

7-Hydroxy-6,8-dimethoxycoumarin glucoside [16845-16-2] C<sub>17</sub>H<sub>20</sub>O<sub>10</sub> (384.34). mp 218°C. Pharm: Increases the weight and RNA content of both prostate and testis (male mus, orl, 5~7mg/(kg·d)). Source: WU JIA PI *Acanthopanax gracilistylus*. Ref: 6, 658.

**6755 Eleutheroside I**

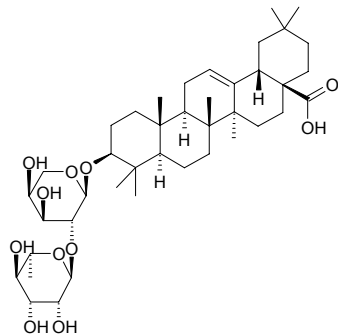
Mubenin B; Raddeanin B [35790-94-4] C<sub>41</sub>H<sub>66</sub>O<sub>11</sub> (734.98). mp 234~235°C (dec), mp 237~240°C, [α]<sub>D</sub><sup>24</sup> = +12° (c = 0.5, MeOH). Pharm: Hemolytic. Source: CI WU JIA YE *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*], DUO BEI YIN LIAN HUA *Anemone raddeana* (root: yield = 0.0043%), NA TENG GUO *Stauntonia hexaphylla*. Ref: 6, 660, 900, 1312.



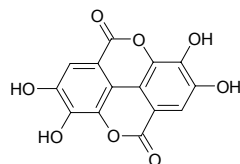


**6756 Eleutheroside K**

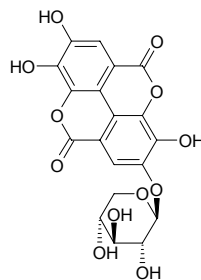
$\beta$ -Hederin; Oleanolic acid 3-*O*- $\alpha$ -L-rhamnopyranosyl (1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranoside [35790-95-5] C<sub>41</sub>H<sub>66</sub>O<sub>11</sub> (734.98). White needles, mp 221~223°C; White amorphous powder,  $[\alpha]_D^{23} = +10.9^\circ$  ( $c = 0.55$ , MeOH). **Pharm:** Cytotoxic (hmn gastric carcinoma cells BGC823, hmn myelocytic leukemia cell K562, obvious effect)<sup>[4812]</sup>; hemolytic. **Source:** CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*] (seed), CI WU JIA YE *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*], DUO BEI YIN LIAN HUA *Anemone raddeana*, HUANG HUA BAI JIANG *Patrinia scabiosaefolia*, YANG CHANG CHUN TENG *Hedera helix*. **Ref:** 6, 658, 660, 2240, 4812, 4904.

**6757 Ellagic acid**

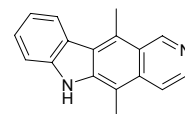
2,3,7,8-Tetrahydroxy[1]benzopyrano[5,4,3-*cde*][1]benzopyran-5,7-dione [476-66-4] C<sub>14</sub>H<sub>6</sub>O<sub>8</sub> (302.20). Yellow, mp > 360°C. **Pharm:** Hemostatic; uterine stimulant; antimutagenic (caused by aromatic hydrocarbons); antiplasmodial<sup>[5361]</sup>; ACE inhibitor (IC<sub>50</sub> = 400 μmol/L, control Lisinopril, IC<sub>50</sub> = 1 nmol/L); NEP inhibitor (IC<sub>50</sub> > 500 μmol/L, control Phosphoramidon, IC<sub>50</sub> = 9 nmol/L); APN inhibitor inactive; antibacterial (*Erwinia carotovora*, IZD = 15mm/100 μg, control Quercetin sulfate, IZD = 21mm/10 μg; *Staphylococcus aureus*, IZD = 0mm/100 μg, Quercetin sulfate, IZD = 14mm/10 μg; *Corynebacterium accolens*, IZD = 12mm/100 μg, Quercetin sulfate, IZD = 28mm/10 μg)<sup>[5250]</sup>; antifungal (*Candida albicans*, IZD = 10mm/100 μg, control Nystatin, IZD = 11mm/20 μg)<sup>[5250]</sup>; xanthine oxidase inhibitor (IC<sub>50</sub> = 2.8 μg/mL, IC<sub>50</sub> = 9.3 μmol/L; control Quercetin, IC<sub>50</sub> = 3.4 μg/mL, IC<sub>50</sub> = 10 μmol/L)<sup>[5250]</sup>. **Source:** DA FEI YANG CAO *Euphorbia hirta*, DA YE KU NUO NI *Cunonia macrophylla* (leaf), HE ZI *Terminalia chebula*, HONG KUAI ZI *Chamaenerion angustifolium* [Syn. *Epilobium angustifolium*], HUA XIANG SHU YE *Platycarya strobilacea*, MANG GUO *Mangifera indica*, NING MENG AN YE *Eucalyptus citriodora*, QIAN QU CAI *Lythrum salicaria*, SHU ZHANG LAO GUAN CAO *Geranium sibiricum*, XIAN HE CAO *Agrimonia pilosa* var. *japonica*, *Tristaniopsis calobuxus* (bark), YUN NAN FENG CHE ZI *Combretum yunnanensis* (branch)<sup>[4693]</sup>, occurs in many plants (widely distributed in higher plants: found by Bate-Smith in 75 genera of dicotyledons and in only one monocotyledonous sp. *Hypoxis filiformis* in family Amaryllidaceae). **Ref:** 6, 71, 658, 1521, 4693, 5034, 5250, 5361.

**6758 Ellagic acid-4- $\beta$ -D-xylopyranoside**

C<sub>19</sub>H<sub>14</sub>O<sub>12</sub> (434.12). Pink. **Pharm:** Antibacterial (*Erwinia carotovora*, IZD = 12mm/100 μg, control Quercetin sulfate, IZD = 21mm/10 μg; *Staphylococcus aureus*, IZD = 0mm/100 μg, Quercetin sulfate, IZD = 14mm/10 μg; *Corynebacterium accolens*, IZD = 0mm/100 μg, Quercetin sulfate, IZD = 28mm/10 μg); antifungal (*Candida albicans*, IZD = 0mm/100 μg, control Nystatin, IZD = 11mm/20 μg); xanthine oxidase inhibitor (IC<sub>50</sub> = 2.1 μg/mL, IC<sub>50</sub> = 4.7 μmol/L; control Quercetin, IC<sub>50</sub> = 3.4 μg/mL, IC<sub>50</sub> = 10 μmol/L). **Source:** DA YE KU NUO NI *Cunonia macrophylla* (leaf). **Ref:** 5250.

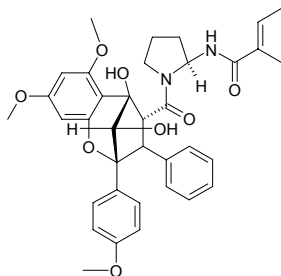
**6759 Ellipticine**

[519-23-3] C<sub>17</sub>H<sub>14</sub>N<sub>2</sub> (246.31). Yellowish acicular crystals (ethyl acetate), mp 311~315°C (dec). **Pharm:** cytotoxic (*in vitro*, Lu1, IC<sub>50</sub> = 0.02 μg/mL (0.08 μmol/L), LNCaP, IC<sub>50</sub> = 0.8 μg/mL (3.25 μmol/L), Col2, IC<sub>50</sub> = 0.3 μg/mL (1.22 μmol/L), HUVEC, IC<sub>50</sub> = 0.09 μg/mL (0.37 μmol/L), KB, IC<sub>50</sub> = 0.04 μg/mL (0.16 μmol/L), HOG.R5, IC<sub>50</sub> = 0.02 μg/mL (0.08 μmol/L))<sup>[3009]</sup>; cytotoxic (*in vitro*, Lu1, ED<sub>50</sub> = 0.02 μg/mL; Col2, ED<sub>50</sub> = 0.3 μg/mL; KB, ED<sub>50</sub> = 0.04 μg/mL; LNCaP, ED<sub>50</sub> = 0.8 μg/mL; KB in absence of 1 μg/mL vinblastine, ED<sub>50</sub> = 0.3 μg/mL; KB in presence of 1 μg/mL vinblastine, ED<sub>50</sub> = 0.2 μg/mL; BC-1, ED<sub>50</sub> = 0.5 μg/mL)<sup>[3479]</sup>; cytotoxic (BC, IC<sub>50</sub> = 0.3 μg/mL; KB, IC<sub>50</sub> = 0.3 μg/mL)<sup>[3858]</sup>; cytotoxic (Vero cells, IC<sub>50</sub> = (0.4±0.1) μg/mL, colorimetric method (P. Skehan, et al., J Natl Cancer Inst 1990, 82, 1107-1112))<sup>[4078]</sup>; cytotoxic (A549, IC<sub>50</sub> = 0.8 μmol/L; Col2, IC<sub>50</sub> = 1.6 μmol/L; SNU638, IC<sub>50</sub> = 1.6 μmol/L; HT1080, IC<sub>50</sub> = 1.2 μmol/L)<sup>[4081]</sup>; cytotoxic (hmn small cell lung cancer NCI-H187 cell line, IC<sub>50</sub> = (0.35±0.15) μg/mL)<sup>[5061]</sup>; cytotoxic (NCI-H187, IC<sub>50</sub> = 0.2~0.3 μg/mL; KB, IC<sub>50</sub> = 0.2~0.3 μg/mL; BC-1, IC<sub>50</sub> = 0.2~0.3 μg/mL; Vero cell, IC<sub>50</sub> = 0.2~0.3 μg/mL)<sup>[5062]</sup>; cytotoxic (KB, ED<sub>50</sub> = 0.10 μg/mL)<sup>[5075]</sup>; cytotoxic (KB, EC<sub>50</sub> = 0.3 μg/mL; BC, EC<sub>50</sub> = 0.3 μg/mL)<sup>[5092]</sup>; cytotoxic (Col2, IC<sub>50</sub> = 0.3 μg/mL; P<sub>388</sub>, IC<sub>50</sub> = 0.1 μg/mL)<sup>[5400]</sup>; cytotoxic (KB cells, IC<sub>50</sub> = (0.3±0.1) μg/mL; BC, IC<sub>50</sub> = (0.3±0.1) μg/mL)<sup>[5435]</sup>; cytotoxic (P<sub>388</sub>, ED<sub>50</sub> = 0.61 μg/mL; KB, ED<sub>50</sub> = 0.54 μg/mL; Col2, ED<sub>50</sub> = 0.60 μg/mL; Lu1, ED<sub>50</sub> = 0.61 μg/mL; BCA-1, ED<sub>50</sub> = 0.52 μg/mL)<sup>[5478]</sup>; antineoplastic (L<sub>1210</sub>, EAC cells, liver cancer in rat, P<sub>388</sub>, S<sub>180</sub>)<sup>[661]</sup>; antitrypanosomal (*Trypanosoma cruzi*)<sup>[661]</sup>; hemolytic (animal model)<sup>[661]</sup>. **Source:** GU CHENG MEI GUI SHU *Ochrosia elliptica*, WEI BAI BAI JIAN MU *Aspidosperma subincanum*. **Ref:** 661, 3009, 3479, 3858, 4078, 4081, 5061, 5062, 5075, 5092, 5400, 5435, 5478, 5507.

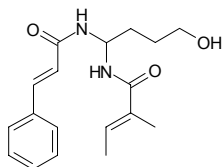


**6760 Elliptifoline**

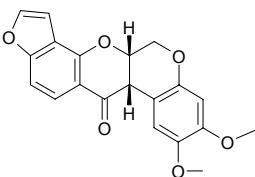
$C_{36}H_{40}N_2O_8$  (628.73). White powder, mp 184~185°C,  $[\alpha]_D^{22} = -88.9^\circ$  ( $c = 0.6$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (A549,  $ED_{50} = 18.9\mu g/mL$ ; HL-60,  $ED_{50} > 50\mu g/mL$ ; HT29,  $ED_{50} > 50\mu g/mL$ ; KB,  $ED_{50} > 50\mu g/mL$ ; P388,  $ED_{50} = 3.41\mu g/mL$ ). **Source:** DA YE SHU LAN *Aglaia elliptifolia* (leaf: yield = 0.00071%dw). **Ref:** 3031.

**6761 Elliptinol**

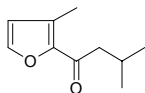
$C_{18}H_{24}N_2O_3$  (316.4). White powder, mp 162~163°C,  $[\alpha]_D^{22} = +38.6^\circ$  ( $c = 0.05$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (A549,  $ED_{50} > 50\mu g/mL$ ; HL-60,  $ED_{50} = 32.1\mu g/mL$ ; HT29,  $ED_{50} > 50\mu g/mL$ ; KB,  $ED_{50} > 50\mu g/mL$ ; P388,  $ED_{50} = 3.62\mu g/mL$ ). **Source:** DA YE SHU LAN *Aglaia elliptifolia* (leaf: yield = 0.00005%dw). **Ref:** 3031.

**6762 Elliptone**

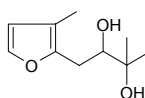
$C_{20}H_{16}O_6$  (352.35). **Pharm:** Anti-tumor promotor (*in vivo*, mouse skin tumor, inhibits TPA-induced EBV-EA activation, 100 mol ratio/32pmol TPA, EBV-EA positive cells = 76.8% viability, positive control  $\beta$ -Carotene, EBV-EA positive cells = 82.7% viability). **Source:** YU TENG *Derris trifoliata* (stem). **Ref:** 4982.

**6763 Elsholtzia ketone**

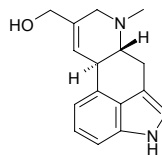
[488-05-1]  $C_{10}H_{14}O_2$  (166.22). bp 210°C. **Source:** BAN BIAN SU *Elsholtzia ciliata*. **Ref:** 6.

**6764 Elsholtzidiol**

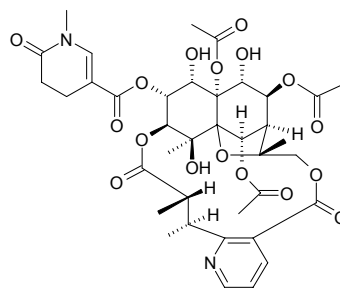
[28666-20-8]  $C_{10}H_{16}O_3$  (184.24). mp 58~59°C. **Source:** XIANG RU *Elsholtzia splendens*. **Ref:** 6.

**6765 Elymoclavine**

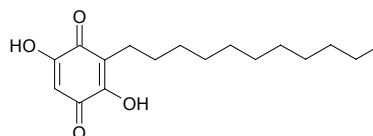
[548-43-6]  $C_{16}H_{18}N_2O$  (254.33). mp 250~252°C. **Pharm:** Inhibits release of galactin; CNS stimulant. **Source:** MAI JIAO *Claviceps purpurea*, QIAN NIU ZI *Pharbitis nil*. **Ref:** 6, 658.

**6766 Emarginatine**

$C_{38}H_{46}N_2O_{17}$  (802.79). **Pharm:** Cytotoxic (KB  $ED_{50} = 1.7mg/L$ , Colon205  $ED_{50} = 4.1mg/L$ ). **Source:** NAN SHE TENG GEN *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. **Ref:** 2511.

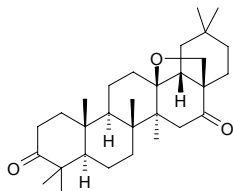
**6767 Embelin**

2,5-Dihydroxy-3-undecyl-2,5-cyclohexadiene-1,4-dione [550-24-3]  $C_{17}H_{26}O_4$  (294.39). Orange crystals (MeOH or hexane-EtOH), mp 145~146°C, mp 143°C. **Pharm:** Analgesic; anti-fertility agent (rat); anti-inflammatory; antipyretic; anthelmintic (teniafuge); DPPH free radical scavenger ( $IC_{50} = (23.3\pm 0.5)\mu mol/L$ , control Trolox,  $IC_{50} = (25.4\pm 0.8)\mu mol/L$ )<sup>[4244]</sup>; antineoplastic (rat, autochthonous fibrosarcomas induced by methylcholanthrene, prolonged the survival time of the animals)<sup>[5369]</sup>; cytotoxic (*in vitro*, fibrosarcoma cell line, concentration-dependent decrease in thymidine uptake and glutathione levels of the tumor cells)<sup>[5369]</sup>. **Source:** AI ZI JIN NIU *Ardisia humilis*, BA BEI SUAN TENG ZI *Embelia barbeyana*, CHI YE TIE ZI *Myrsine semiserrata*, CU YE MAI MI HUA SHU *Rapanea neurophylla*, CU ZHUANG SUAN TENG ZI *Embelia robusta*, LA ZHU GUO *Aegiceras corniculatum*, MA GUI HUA *Embelia oblongifolia*, SAN HUA MI HUA SHU *Rapanea umbellata*, TIE ZI *Myrsine africana*, WEI LING XIAN *Clematis chinensis*, XIAN SUAN QIANG *Embelia ribes*, XIAO TOU TIE ZI *Myrsine capitellata*, YOU SE ZI JIN NIU *Ardisia colorata* (fruit), ZHU SHA GEN *Ardisia crenata*, ZI JIN NIU *Ardisia japonica*, *Connarus ritchiei*, *Embelia kilimandscharica*, *Embelia tsjersium-cottam*, *Rapanea* sp. **Ref:** 6, 658, 1521, 4244, 5369.

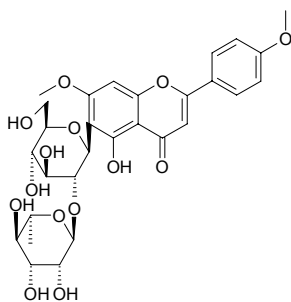


**6768 Embelinone**

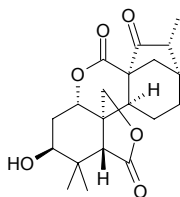
3,16-dioxo-13 $\beta$  17-methyleneoxyoleanane C<sub>30</sub>H<sub>46</sub>O<sub>3</sub> (454.70). Clear needles, mp 257~259°C [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -4° (c = 0.6, CHCl<sub>3</sub>). Source: KEN NI YA XIAN SUAN QIANG *Embelia schimperi*. Ref: 2058.

**6769 Embinin**

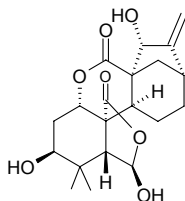
[52589-13-6] C<sub>29</sub>H<sub>34</sub>O<sub>14</sub> (606.59). mp 181°C. Pharm: Xanthinoxidase inhibitor (50 $\mu$ g/mL, InRt = 22.8 %); aldose reductase inhibitor (rat eye lens, 10 $\mu$ mol/L InRt = 12.7%). Source: HU DIE HUA *Iris japonica*, YUAN WEI *Iris tectorum*. Ref: 6, 1632, 1631.

**6770 Ememodin**

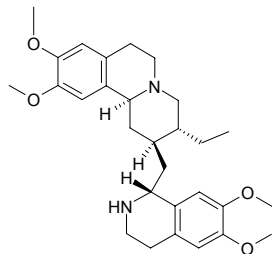
C<sub>20</sub>H<sub>26</sub>O<sub>6</sub> (362.43). mp 237~239°C, [ $\alpha$ ]<sub>D</sub><sup>17</sup> = -131° (c = 0.0498, EtOH). Source: MAO GUO XIANG CHA CAI *Isodon trichocarpa*. Ref: 4067.

**6771 Ememogin**

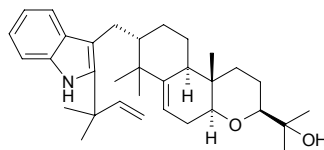
C<sub>20</sub>H<sub>26</sub>O<sub>7</sub> (378.43). mp > 300°C, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -145.8° (c = 0.20, C<sub>5</sub>H<sub>5</sub>N). Source: MAO GUO XIANG CHA CAI *Isodon trichocarpa*. Ref: 4067.

**6772 Emetine**

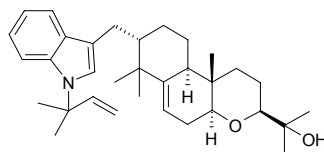
Cephaeline methylether [483-18-1] C<sub>29</sub>H<sub>40</sub>N<sub>2</sub>O<sub>4</sub> (480.65). White powder, mp 74°C, turning yellow if exposed or heated, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -50° (c = 2, chloroform), easily soluble in ethanol, acetic ester, chloroform, ether, insoluble in water.<sup>[5507]</sup> Pharm: Antiamebic; antineoplastic; antiviral; antitussive (dispels phlegm); emetic; LD (hmn) = 10~20mg/kg. Source: TU GEN *Cephaelis ipecacuanha* (root: content scope = 2%~4%)<sup>[5507]</sup>, YANG CHANG CHUN TENG *Hedera helix*. Ref: 658, 661, 5507.

**6773 Emindole PA**

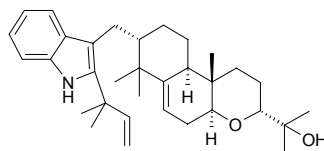
C<sub>33</sub>H<sub>47</sub>NO<sub>2</sub> (489.75). Colorless amorphous powder. Source: ZI LUO KE BAO *Emericella purpurea*. Ref: 1101.

**6774 Emindole PB**

C<sub>33</sub>H<sub>47</sub>NO<sub>2</sub> (489.75). Colorless amorphous powder. Source: ZI LUO KE BAO *Emericella purpurea*. Ref: 1101.

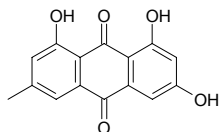
**6775 Emindole PC**

C<sub>33</sub>H<sub>47</sub>NO<sub>2</sub> (489.75). Colorless crystalline powder (ether), mp 238~240°C. Source: ZI LUO KE BAO *Emericella purpurea*. Ref: 1101.

**6776 Emodin**

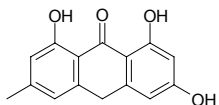
1,3,8-Trihydroxy-6-methylantraquinone [518-82-1] C<sub>15</sub>H<sub>10</sub>O<sub>5</sub> (270.24). Orange red prismatic crystals, mp 250~257°C. Pharm: Antibacterial (*Staphylococcus aureus*, *Bacillus coli*, *Bacillus pyocyaneus*, *Bacillus dysenteriae*, *Bacillus influenzae*, *Bacillus diphtheriae*, *Bacillus subtilis*, *Bacillus paratyphosus*, *Coccus catarrhal*, and  $\alpha$ -Streptococcus); antineoplastic (mus, B16 melanoma BL, 50mg/(kg·d), InRt = 76%, mus, mammary cancer and EAC); antifungal (*Trichophyton interdigitale*, *Microsporum* sp.); antispasmodic; antispasmodic; antitussive; cytotoxic (Walker sarcoma, P<sub>388</sub>);

diuretic; antihypertensive; inhibits coronal wart growth in potato flower tray; antitrypanosomal (*Trypanosoma brucei*,  $IC_{50} = (18.1 \pm 4.2) \mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = (0.0015 \pm 0.0009) \mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} = (19.8 \pm 2.4) \mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = (0.39 \pm 0.15) \mu\text{g/mL}$ )<sup>[5008]</sup>; antileishmanial (*Leishmania donovani*,  $IC_{50} = (20.5 \pm 0.5) \mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = (0.23 \pm 0.03) \mu\text{g/mL}$ )<sup>[5008]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} = (9.7 \pm 1.2) \mu\text{g/mL}$ , control Chloroquine,  $IC_{50} = (0.055 \pm 0.02) \mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = (0.0011 \pm 0.0006) \mu\text{g/mL}$ )<sup>[5008]</sup>; cytotoxic (L6,  $IC_{50} = (20.3 \pm 2.6) \mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.0075 \mu\text{g/mL}$ )<sup>[5008]</sup>; cytotoxic (*in vitro*, Calu1,  $IC_{50} = (6.25 \pm 2.9) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (15.6 \pm 4.2) \mu\text{mol/L}$ ; K562,  $IC_{50} > 100 \mu\text{mol/L}$ ; Raji,  $IC_{50} = (43.8 \pm 7.3) \mu\text{mol/L}$ ; Vero,  $IC_{50} = (40 \pm 1.7) \mu\text{mol/L}$ ; Wish,  $IC_{50} = (28.8 \pm 1.9) \mu\text{mol/L}$ , 1,3,8-trihydroxy for anthraquinone plays a significant role in the cytotoxic activity)<sup>[3057]</sup>; cytotoxic inactive (MCF, HM02, HEPG2)<sup>[5232]</sup>; antioxidant inactive (DPPH radical scavenger assay)<sup>[5232]</sup>; antioxidant inactive (DPPH radical scavenger,  $IC_{50} > 100 \mu\text{g/mL}$ ; control Ascorbic acid,  $IC_{50} = 3.9 \mu\text{g/mL}$ )<sup>[4711]</sup>. **Source:** BAI HE *Lilium brownii* var. *viridulum* [Syn. *Lilium brownii* var. *colchesteri*], CHAO XIAN YIN YANG HUO *Epimedium koreanum*, CHI MA *Boehmeria platanifolia* [Syn. *Boehmeria tricuspis*], DA HUANG *Rheum officinale*, DONG FANG WEI SI MU *Vismia orientalis* (stem cortex), DUN YE JUE MING *Cassia obtusifolia* (ripe seed: mean content = 0.011%)<sup>[5508]</sup>, GANG BAN GUI GEN *Polygonum perfoliatum*, HE SHOU WU *Polygonum multiflorum* (dried tuberoid (raw): content scope of 9 batch samples = 0.0026%–0.132%, mean content = 0.044%)<sup>[5508]</sup>, HE SHOU WU *Polygonum multiflorum* (dried tuberoid (preparing): content scope of 8 batch samples = 0.0020%–0.168%, mean content = 0.042%)<sup>[5508]</sup>, HU ZHANG *Polygonum cuspidatum* (rhizome: mean content = 1.40%)<sup>[5508]</sup>, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], JUE MING ZI *Cassia tora*, MAO GUO YI HE GUO *Ventilago calyculata*, NI BO ER YANG TI *Rumex nepalensis*, NIU ER DA HUANG *Rumex crispus*, NIU SHE CAO *Rumex dentatus* (root: mean content = 0.0805%)<sup>[5508]</sup>, NIU XI XI *Rumex patientia* (root: mean content = 0.1159%)<sup>[5508]</sup>, OU SHU LI *Rhamnus frangula* [Syn. *Frangula alnus*], SHU LI *Rhamnus davurica*, SUAN MO *Rumex acetosa* (root: mean content = 0.3025%)<sup>[5508]</sup>, TANG GU TE DA HUANG *Rheum tanguticum*, TIAN SHAN DA HUANG *Rheum wittrockii*, TIE ZI *Myrsine africana*, WANG JIANG NAN *Cassia occidentalis*, WANG JIANG NAN ZI *Cassia occidentalis* (ripe seed: content = 0.0016%)<sup>[5508]</sup>, YANG TI *Rumex japonicus* (root: mean content = 0.0881%)<sup>[5508]</sup>, YI HE GUO *Ventilago leiocarpa* (stem)<sup>[3057]</sup>, ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (stem and rhizome: content = 1.38%)<sup>[5508]</sup>, yield = 0.53%<sup>[4711]</sup>, ZHANG YE DA HUANG *Rheum palmatum* (stem and rhizome: content = 0.42%)<sup>[5508]</sup>, occurs in many plants. **Ref:** 2, 4, 458, 511, 608, 658, 660, 3057, 4711, 5008, 5232, 5501, 5508.



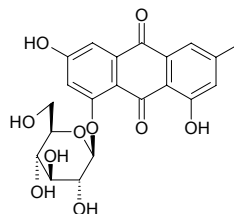
#### 6777 Emodin anthrone

[491-60-1]  $C_{15}H_{12}O_4$  (256.26). mp 236°C. **Source:** JUE MING ZI *Cassia tora*. **Ref:** 2, 6.



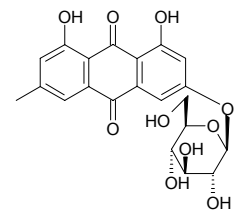
#### 6778 Emodin-1-O-β-D-glucopyranoside

$C_{21}H_{20}O_{10}$  (432.39). **Pharm:** Inhibits sperm movement (hmn); antioxidant inactive (DPPH radical scavenger); cytotoxic inactive (MCF, HM02, HEPG2). **Source:** DA HUANG *Rheum officinale*, HU ZHANG *Polygonum cuspidatum*, NIU XI XI *Rumex patientia*, OU SHU LI *Rhamnus frangula* [Syn. *Frangula alnus*], TANG GU TE DA HUANG *Rheum tanguticum*, ZHANG YE DA HUANG *Rheum palmatum*. **Ref:** 2, 658, 660, 5232.



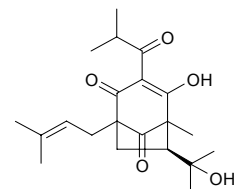
#### 6779 Emodin-3-O-β-D-glucopyranoside

$C_{21}H_{20}O_{10}$  (432.39). Amorphous. **Pharm:** Antioxidant inactive (DPPH radical scavenger assay)<sup>[5232]</sup>; cytotoxic inactive (MCF, HM02, HEPG2)<sup>[5232]</sup>. **Source:** JUE MING ZI *Cassia tora*, NIU XI XI *Rumex patientia*. **Ref:** 2, 5232.



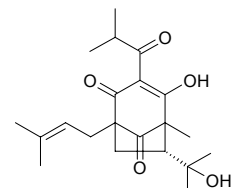
#### 6780 Enaimeone A

$C_{21}H_{30}O_5$  (362.47). **Pharm:** Antioxidant inactive (PMN cellular chemiluminescence assay, FMLP-induced and OZ-induced oxidative burst). **Source:** *Hypericum papuanum* **Ref:** 5371.



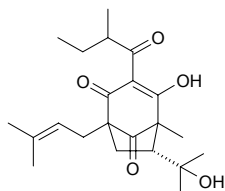
#### 6781 Enaimeone B

$C_{21}H_{30}O_5$  (362.47). **Pharm:** Antioxidant inactive (PMN cellular chemiluminescence assay, FMLP-induced and OZ-induced oxidative burst). **Source:** *Hypericum papuanum* **Ref:** 5371.

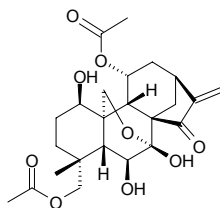


**6782 Enaimeone C**

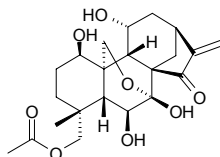
$C_{22}H_{32}O_5$  (376.50). **Pharm:** Antioxidant inactive (PMN cellular chemiluminescence assay, FMLP-induced and OZ-induced oxidative burst). **Source:** *Hypericum papuanum* **Ref:** 5371.

**6783 Enanderianin A**

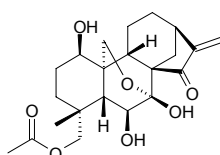
$C_{24}H_{32}O_9$  (464.52). mp 225–227°C,  $[\alpha]_D^{22} = -76.9^\circ$  ( $c = 0.52$ , MeOH). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus*. **Ref:** 4067.

**6784 Enanderianin B**

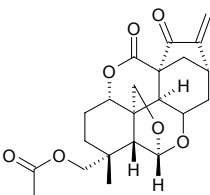
$C_{22}H_{30}O_8$  (422.48). mp 208–210°C,  $[\alpha]_D^{22} = -71.4^\circ$  ( $c = 0.63$ , MeOH). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus*. **Ref:** 4067.

**6785 Enanderianin C**

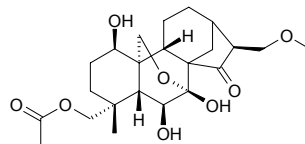
Xerophilusin H [247939-40-8]  $C_{22}H_{30}O_7$  (406.48). Colorless acicular crystals,  $[\alpha]_D^{23} = -149.4^\circ$  ( $c = 0.43$ , pyridine), mp 238–240°C, mp 262–264°C. **Pharm:** Cytotoxic (K562,  $IC_{50} = 1.17\mu\text{g/mL}$ , control Mitoxantrone,  $IC_{50} = 0.29\mu\text{g/mL}$ ; HL-60,  $IC_{50} = 0.87\mu\text{g/mL}$ , Mitoxantrone,  $IC_{50} = 0.29\mu\text{g/mL}$ ; HCT,  $IC_{50} = 52.78\mu\text{g/mL}$ , Mitoxantrone,  $IC_{50} = 1.54\mu\text{g/mL}$ ; MKN28,  $IC_{50} = 1.86\mu\text{g/mL}$ , Mitoxantrone,  $IC_{50} = 0.02\mu\text{g/mL}$ )<sup>[5182]</sup>. **Source:** HAN SHENG XIANG CHA CAI *Isodon xerophilus* (leaf), ZI MAO XIANG CHA CAI *Isodon enanderianus*. **Ref:** 894, 4067, 5182.

**6786 Enanderianin F**

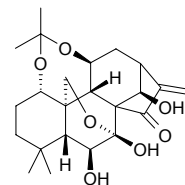
$C_{22}H_{26}O_7$  (402.45). White amorphous powder,  $[\alpha]_D^{26} = +24.6^\circ$  ( $c = 0.20$ , MeOH). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus*. **Ref:** 1948.

**6787 Enanderianin G**

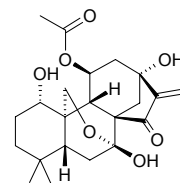
$C_{23}H_{34}O_8$  (438.52). White amorphous powder,  $[\alpha]_D^{26} = -108.2^\circ$  ( $c = 0.50$ , MeOH). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus*. **Ref:** 1948.

**6788 Enanderianin H**

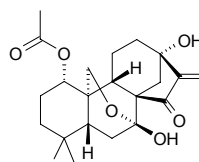
$C_{23}H_{34}O_7$  (420.51). White amorphous powder,  $[\alpha]_D^{26} = -108.2^\circ$  ( $c = 0.37$ , MeOH). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus*. **Ref:** 1948.

**6789 Enanderianin K**

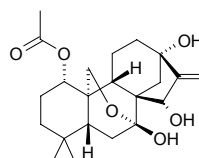
1 $\alpha$ ,7 $\beta$ ,13 $\alpha$ -Trihydroxy-11 $\beta$ -acetoxy-7 $\alpha$ ,20-epoxy-*ent*-kaur-16-en-15-one  $C_{22}H_{30}O_7$  (406.48). Colorless cubic crystals (MeOH), mp 235–237°C,  $[\alpha]_D^{20} = -33.3^\circ$  ( $c = 0.20$ , MeOH). **Pharm:** Cytotoxic (hmn tumor K562 cells,  $IC_{50} = 0.67\mu\text{g/mL}$ , control *cis*-Platin,  $IC_{50} = 0.52\mu\text{g/mL}$ ). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus* (aerial parts). **Ref:** 5475.

**6790 Enanderianin L**

7 $\beta$ ,13 $\alpha$ -Dihydroxy-1 $\alpha$ -acetoxy-7 $\alpha$ ,20-epoxy-*ent*-kaur-16-en-15-one  $C_{22}H_{30}O_6$  (390.48). Colorless needles ( $\text{Me}_2\text{CO}$ ), mp 123–125°C,  $[\alpha]_D^{20} = -89.8^\circ$  ( $c = 0.25$ , MeOH). **Pharm:** Cytotoxic (hmn tumor K562 cells,  $IC_{50} = 0.16\mu\text{g/mL}$ , control *cis*-Platin,  $IC_{50} = 0.52\mu\text{g/mL}$ ). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus* (aerial parts). **Ref:** 5475.

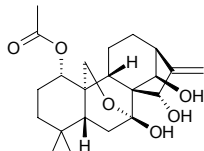
**6791 Enanderianin M**

7 $\beta$ ,13 $\alpha$ ,15 $\beta$ -Trihydroxy-1 $\alpha$ -acetoxy-7 $\alpha$ ,20-epoxy-*ent*-kaur-16-ene  $C_{22}H_{32}O_6$  (392.50). Colorless needles ( $\text{Me}_2\text{CO}$ ), mp 253–255°C,  $[\alpha]_D^{20} = +25.0^\circ$  ( $c = 0.08$ , MeOH). **Pharm:** Cytotoxic (hmn tumor K562 cells, very weak). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus* (aerial parts). **Ref:** 5475.

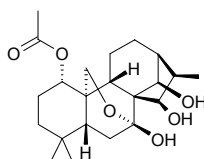


**6792 Enanderianin N**

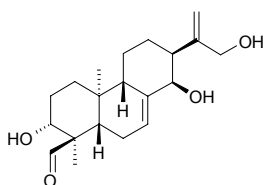
7 $\beta$ ,14 $\beta$ ,15 $\beta$ -Trihydroxy-1 $\alpha$ -acetoxy-7 $\alpha$ ,20-epoxy-*ent*-kaur-16-ene C<sub>22</sub>H<sub>32</sub>O<sub>6</sub> (392.50). Colorless needles (Me<sub>2</sub>CO), mp 216–218°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +5.7° (*c* = 0.26, MeOH). **Pharm:** Cytotoxic (hmn tumor K562 cells, very weak). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus* (aerial parts). **Ref:** 5475.

**6793 Enanderianin O**

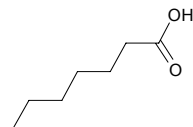
7 $\beta$ ,14 $\beta$ ,15 $\beta$ -Trihydroxy-1 $\alpha$ -acetoxy-7 $\alpha$ ,20-epoxy-*ent*-kaurane C<sub>22</sub>H<sub>34</sub>O<sub>6</sub> (394.51). Colorless cubes (Me<sub>2</sub>CO), mp 196–198°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –38.5° (*c* = 0.13, MeOH). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus* (aerial parts). **Ref:** 5475.

**6794 Enanderianin P**

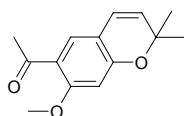
3 $\alpha$ ,14 $\beta$ ,17-Trihydroxy-18-*alant*-abieta-7(8),15(16)-diene C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). Colorless cubes (Me<sub>2</sub>CO), mp 187–189°C, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = –0.7° (*c* = 5.00, MeOH). **Pharm:** Cytotoxic (hmn tumor K562 cells, IC<sub>50</sub> = 0.59 $\mu$ g/mL, control *cis*-Platin, IC<sub>50</sub> = 0.52 $\mu$ g/mL). **Source:** ZI MAO XIANG CHA CAI *Isodon enanderianus* (aerial parts). **Ref:** 5475.

**6795 Enanthic acid**

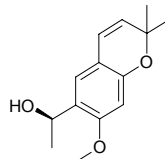
Heptanoic acid [111-14-8] C<sub>7</sub>H<sub>14</sub>O<sub>2</sub> (130.19). **Source:** DANG SHEN *Codonopsis pilosula*, CHAI HU *Bupleurum chinense*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], XI YANG SHEN *Panax quinquefolium*. **Ref:** 2, 6.

**6796 Enecalol**

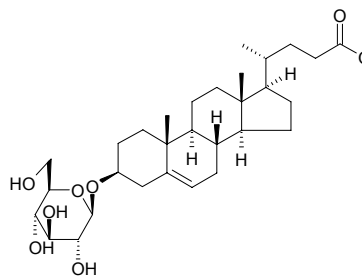
C<sub>14</sub>H<sub>16</sub>O<sub>3</sub> (232.28). **Pharm:** Pesticide; phytotoxic (yeast and bacteria). **Source:** XIAN ZE LAN *Eupatorium glandulosum*. **Ref:** 658.

**6797 Enecalolol**

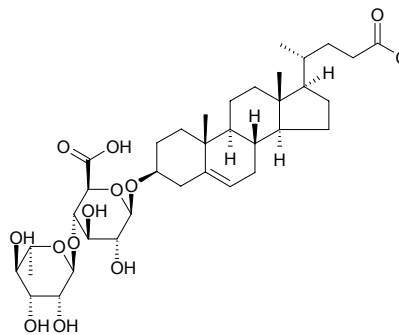
Enecalolol C<sub>14</sub>H<sub>18</sub>O<sub>3</sub> (234.30). **Pharm:** Antifungal (*Trichophyton mentagrophytes* ATCC28185, MIC = 12.5 $\mu$ g/mL, control Miconazole, MIC = 8 $\mu$ g/mL; *Trichophyton rubrum* ATCC28188, MIC = 12.5 $\mu$ g/mL, Miconazole, MIC = 8 $\mu$ g/mL; *Candida albicans* ATCC10231, MIC = 100 $\mu$ g/mL, Nistatin, MIC = 8 $\mu$ g/mL; *Candida niger* ATCC10335, MIC = 200 $\mu$ g/mL, Miconazole, MIC = 16 $\mu$ g/mL)<sup>[5472]</sup>. **Source:** FU CHUI FE LAO JU *Flourensia cernua*, *Eupatorium aschenbornianum*. **Ref:** 1521, 5472.

**6798 5-Ene-methyl-7,12-didehydroxy-cholate-3-O- $\beta$ -D-glucopyranoside**

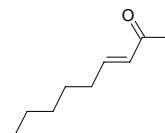
C<sub>31</sub>H<sub>50</sub>O<sub>8</sub> (550.74). White lamellar crystals, mp 201–205°C, soluble in methanol. **Source:** SAN LENG *Spartanium stoloniferum*. **Ref:** 497.

**6799 5-Ene-methyl-7,12-didehydroxy-cholate-3-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucuronopyranoside**

C<sub>37</sub>H<sub>58</sub>O<sub>13</sub> (710.8). White amorphous powder, mp 215–219°C, soluble in methanol. **Source:** SAN LENG *Spartanium stoloniferum*. **Ref:** 497.

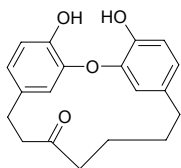
**6800 3-Ene-nonanone-2**

[14309-57-0] C<sub>9</sub>H<sub>16</sub>O (140.23). **Source:** SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2.

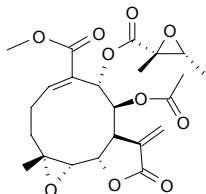


**6801 Engelhardione**

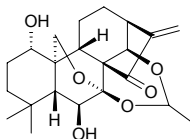
$C_{19}H_{20}O_4$  (312.37). Colorless needles ( $CH_2Cl_2$ -MeOH), mp 73~75°C. **Pharm:** Antitubercular (*Mycobacterium tuberculosis* 90-221387, MIC = 3.125 $\mu$ g/mL; *Mycobacterium tuberculosis* H37Rv, MIC = 0.2 $\mu$ g/mL). **Source:** HUANG QI II *Engelhardia roxburghiana* (root). **Ref:** 5059.

**6802 Enhydrin**

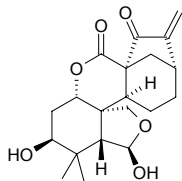
[33880-85-2]  $C_{23}H_{28}O_{10}$  (464.47). **Pharm:** Antihypertensive. **Source:** ZHAO JU *Enhydra fluctuans*. **Ref:** 658.

**6803 Enmedol**

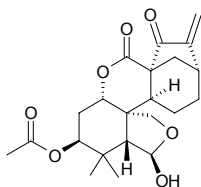
$C_{22}H_{30}O_6$  (390.48). mp 297~299°C,  $[\alpha]_D^{27.5} = -45^\circ$  ( $c = 0.1147$ , MeOH). **Source:** MAO GUO XIANG CHA CAI *Isodon trichocarpa*. **Ref:** 4067.

**6804 Enmein**

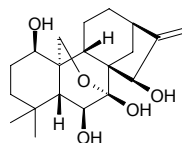
[3776-39-4]  $C_{20}H_{26}O_6$  (362.43). Colorless short columnar crystals, mp 297~299°C (dec),  $[\alpha]_D = -156^\circ$  (acetone),  $[\alpha]_D^{10} = -131.3^\circ$  ( $c = 1.0$ ,  $C_5H_5N$ ). **Pharm:** Antineoplastic (male mus, EAC, 10~15mg/kg ip, biotic prolonged rate = (39~66)%). **Source:** MAO YE XIANG CHA CAI *Isodon japonica* [Syn. *Rabdosia japonica*] (the compound was isolated from the plant in 1965)<sup>[5505]</sup>, MAO GUO XIANG CHA CAI *Isodon trichocarpa*, SHAN DI XIANG CHA CAI *Isodon oresbia* (aerial parts). **Ref:** 661, 4067, 5505, 3808, 4067.

**6805 Enmein-3-acetate**

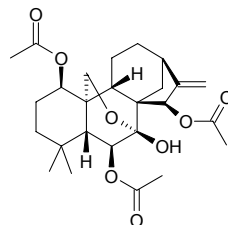
$C_{22}H_{28}O_7$  (404.46). mp 267~271(dec)°C,  $[\alpha]_D^{17} = -112^\circ$  ( $c = 1.0$ ,  $C_5H_5N$ ). **Source:** MAO YE XIANG CHA CAI *Isodon japonica* [Syn. *Rabdosia japonica*]. **Ref:** 4067.

**6806 Enmelol**

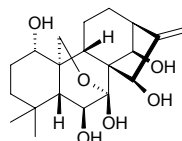
$C_{20}H_{30}O_5$  (350.45). mp 263~265°C,  $[\alpha]_D^{35} = -48^\circ$  ( $c = 0.0863$ , EtOH). **Source:** MAO GUO XIANG CHA CAI *Isodon trichocarpa*, SHAN DI XIANG CHA CAI *Isodon oresbia* (aerial parts). **Ref:** 4067, 3808.

**6807 Enmenin monoacetate**

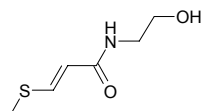
$C_{26}H_{36}O_8$  (476.57). **Source:** SHAN DI XIANG CHA CAI *Isodon oresbia* (aerial parts). **Ref:** 3808.

**6808 Enmenol**

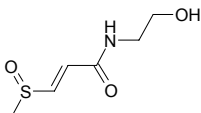
$C_{20}H_{30}O_6$  (366.46). mp 255~257°C. **Source:** LU SHAN XIANG CHA CAI *Isodon rubescens* var. *lushanensis* (leaf), MAO GUO XIANG CHA CAI *Isodon trichocarpa*. **Ref:** 4067, 4353.

**6809 Entadamide A**

$C_6H_{11}NO_2S$  (161.22). Pale yellow oil. **Pharm:** Antitubercular inactive (*Mycobacterium tuberculosis* H37Ra); antimalarial inactive (*Plasmodium falciparum*,  $EC_{50} > 20\mu$ g/mL). **Source:** TAI GUO NIU XU HUA *Clinacanthus siamensis* (leaf). **Ref:** 4410.

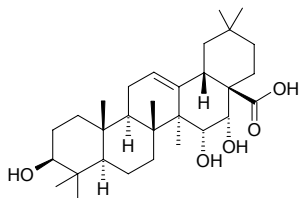
**6810 Entadamide C**

$C_6H_{11}NO_3S$  (177.22). Colorless needles (acetone), mp 141~142°C. **Pharm:** Antitubercular inactive (*Mycobacterium tuberculosis* H37Ra); antimalarial inactive (*Plasmodium falciparum*,  $EC_{50} > 20\mu$ g/mL). **Source:** TAI GUO NIU XU HUA *Clinacanthus siamensis* (leaf). **Ref:** 4410.

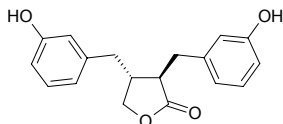


**6811 Entagenic acid**

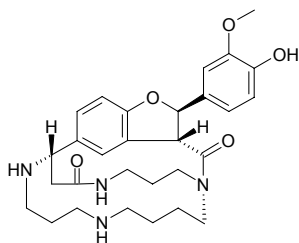
[5951-41-7]  $C_{30}H_{48}O_5$  (488.71). mp 310–315°C. Source: KE TENG ZI *Entada phaseoloides* [Syn. *Lens phaseoloides*]. Ref: 6.

**6812 Enterolactone**

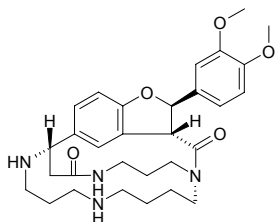
[78473-71-9]  $C_{18}H_{18}O_4$  (298.34). Pharm: Cancer-preventing activity. Source: family Brassicaceae spp. Ref: 1521, 1582.

**6813 Ephedradine B**

[71327-57-6]  $C_{29}H_{38}N_4O_5$  (522.65). Crystals without free alkali, dihydrobromide: ( $C_{29}H_{38}N_4O_5 \cdot 2HBr \cdot H_2O$ ) mp 219–221°C,  $[\alpha]_D = -101.5^\circ$  (water). Pharm: Antihypertensive. Source: *Ephedra* sp. Ref: 661.

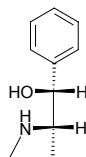
**6814 Ephedradine C**

[73276-37-6]  $C_{30}H_{40}N_4O_5$  (536.68). Crystals without free alkali, dihydrobromide: ( $C_{30}H_{40}N_4O_5 \cdot 2HBr \cdot H_2O$ ) mp 224–225°C,  $[\alpha]_D = -100.7^\circ$  (water). Pharm: Antihypertensive. Source: *Ephedra* sp. Ref: 661.

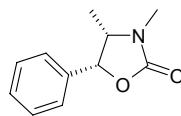
**6815 Ephedrine**

Ephedrine; 1-Phenyl-2-methylaminopropanol [299-42-3]  $C_{10}H_{15}NO$  (165.24). mp 38.1°C, bp 225°C,  $[\alpha]_D^{20} = -6.3^\circ$  (ethanol),  $[\alpha]_D^{21} = -41^\circ$  (1mol HCl), easily soluble in water, ethanol, soluble in chloroform, benzene, ether.<sup>[5507]</sup> Pharm: Antiasthmatic (bronchial smooth muscle relaxant); contracts peripheral blood vessels; increases blood pressure; adrenergic  $\alpha$ - and  $\beta$ -receptor agonist to produce sympathomimetic action; CNS stimulant.

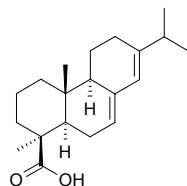
Source: BAN XIA *Pinellia ternata* (dried tuber: content = 0.0020%)<sup>[5501 5508]</sup>, BAN ZI MA HUANG *Ephedra lepidosperma* (herbaceous twigs: content = 0.024%)<sup>[5508]</sup>, DAN ZI MA HUANG *Ephedra monosperma* (herbaceous twigs: content = 1.247%)<sup>[5508]</sup>, HUANG HUA REN *Sida acuta*, LI JIANG MA HUANG *Ephedra likiangensis* (herbaceous twigs: mean content of 3 origins = 0.727%)<sup>[5508]</sup>, MA HUANG *Ephedra sinica* (herbaceous twigs: content scope = 0.272%–0.889%)<sup>[5501]</sup>, mean content of 5 origins = 0.654%)<sup>[5508]</sup>, MO GUO MA HUANG *Ephedra przewalskii* (herbaceous twigs: mean content of 2 origins = 0.027%)<sup>[5508]</sup>, MU ZEI MA HUANG *Ephedra equisetina* (herbaceous twigs: content scope = 1.113%–1.409%)<sup>[5501]</sup>, mean content of 2 origins = 1.256%)<sup>[5508]</sup>, SHAN LING MA HUANG *Ephedra gerardiana* (herbaceous twigs: content = 0.696%)<sup>[5508]</sup>, SHU ZHUANG MA HUANG *Ephedra procera* (herbaceous twigs: content = 0.06%)<sup>[5508]</sup>, SHUANG SUI MA HUANG *Ephedra distachya* (herbaceous twigs: content = 0.19%)<sup>[5508]</sup>, XI ZANG ZHONG MA HUANG *Ephedra intermedia* var. *tibetica* (herbaceous twigs: content = 1.060%)<sup>[5508]</sup>, XI ZI MA HUANG *Ephedra regeliana* (herbaceous twigs: content = 0.054%)<sup>[5508]</sup>, YI ZHU AI MA HUANG *Ephedra minuta* var. *dioeca* (herbaceous twigs: mean content of 2 origins = 0.567%)<sup>[5508]</sup>, ZANG MA HUANG *Ephedra saxatilis* (herbaceous twigs: content = 0.601%)<sup>[5508]</sup>, ZHONG MA HUANG *Ephedra intermedia* (herbaceous twigs:), ZHONG MA HUANG *Ephedra intermedia* (herbaceous twigs: content scope = 0.125%–0.47%)<sup>[5501]</sup>, mean content of 3 origins = 0.266%)<sup>[5508]</sup>, *Ephedra tweediana* (herbaceous twigs: content = 0.0028%)<sup>[5508]</sup>. Ref: 4, 658, 660, 5501, 5507, 5508.

**6816 (4S,5R) Ephedroxane**

[16251-46-0]  $C_{11}H_{13}NO_2$  (191.23). Pharm: Anti-inflammatory. Source: AI MA HUANG *Ephedra minuta*, MA HUANG *Ephedra sinica*, MU ZEI MA HUANG *Ephedra equisetina*, SHAN LING MA HUANG *Ephedra gerardiana*, SHUANG SUI MA HUANG *Ephedra distachya*, ZHONG MA HUANG *Ephedra intermedia*. Ref: 2, 658, 660.

**6817 4-Epi-abietic acid**

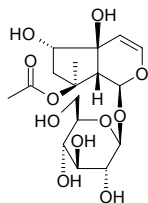
$C_{20}H_{30}O_2$  (302.46). White amorphous powder. Source: JIA DI FENG PI *Illicium jiadifengpi* (bark). Ref: 4560.



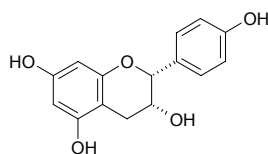


**6818 6-Epi-8-O-acetylharpagide**

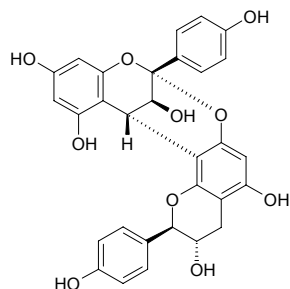
$C_{17}H_{26}O_{11}$  (406.39). White amorphous powder,  $[\alpha]_D = -36^\circ$  ( $c = 0.0035$ , MeOH). Source: ZA JIAO YOU<sup>(2)</sup> *Caryopteris clandonensis*. Ref: 3988.

**6819 (-)-Epiatzelechin**

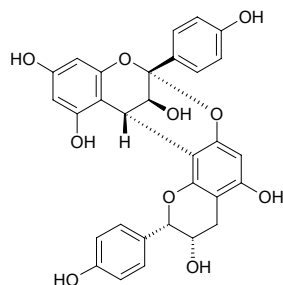
[24808-04-6]  $C_{15}H_{14}O_5$  (274.28). White crystals, mp 248~250°C,  $[\alpha]_D = -59^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antioxidant (DPPH free radical scavenger,  $IC_{50} = 7.5 \mu\text{g/mL}$ )<sup>[3028]</sup>. Source: AN MO LE *Phyllanthus emblica* (branch and leaf)<sup>[3094]</sup>, NAN SHE TENG YECelastrus orbiculatus [Syn. *Celastrus articulatus*], NAN SHE TENG *Celastrus orbiculatus* [Syn. *Celastrus articulatus*] (aerial parts: yield = 0.0025%dw)<sup>[3028]</sup>, OU ZHOU CI BAI *Juniperus communis*, XI BO JUE MING *Cassia sieberiana*. Ref: 713, 3028, 3094.

**6820 ent-Epiatzelechin-(2α→O→7, 4α→8)-(+)-afzelechin**

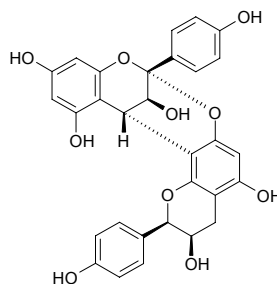
$C_{30}H_{24}O_{10}$  (544.52). Amorphous powder, mp > 300°C. Source: XING REN *Prunus armeniaca*. Ref: 1896.

**6821 ent-Epiatzelechin-(2α→O→7, 4α→8)-(-)-afzelechin**

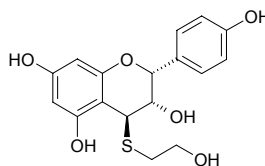
$C_{30}H_{24}O_{10}$  (544.52). Amorphous powder, mp > 300°C. Source: XING REN *Prunus armeniaca*. Ref: 1896.

**6822 ent-Epiatzelechin-(2α→O→7, 4α→8)-epiatzelechin**

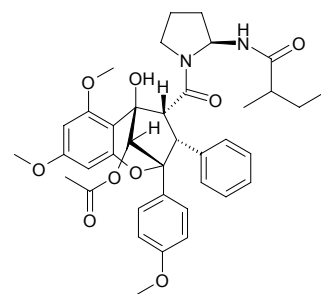
Mahuangnin A  $C_{30}H_{24}O_{10}$  (544.52). Amorphous powder, mp > 300°C. Source: MA HUANG GEN *Ephedra sinica*, XING REN *Prunus armeniaca*. Ref: 1230, 1896.

**6823 (-)-Epiatzelechin-4-(2-hydroxyethyl)thio ether**

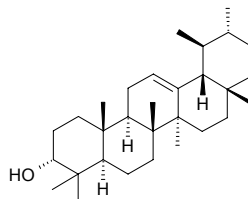
$C_{17}H_{18}O_6S$  (350.39). Red amorphous powder,  $[\alpha]_D = +208.5^\circ$  ( $c = 0.4$ , MeOH). Source: XIAO GUO YE JIAO *Musa acuminata* (fruit). Ref: 3913.

**6824 4-Epiaglaine A**

$C_{38}H_{44}N_2O_9$  (672.78). Amorphous powder,  $[\alpha]_D^{20} = -1.0^\circ$  ( $c = 0.97$ ,  $CHCl_3$ ). Source: TUE YUAN MI ZI LAN *Aglaia elliptica* (leaf). Ref: 4127.

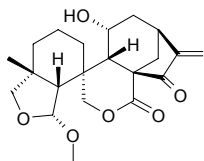
**6825 Epi-α-amyrin**

[5937-48-4]  $C_{30}H_{50}O$  (426.73). Source: MI DIE XIANG *Rosmarinus officinalis*. Ref: 6.

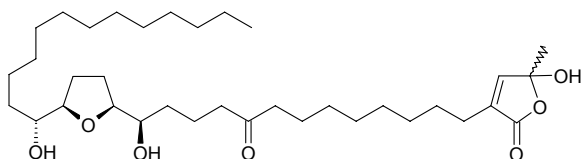


**6826 6-Epiangustifolin**

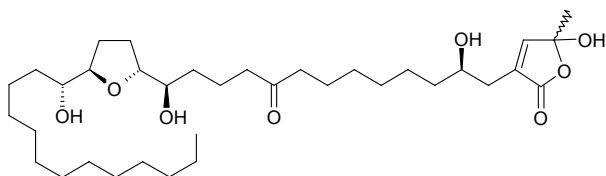
$C_{21}H_{28}O_6$  (376.45). Colorless needles (MeOH), mp 240~242°C,  $[\alpha]_D^{17} = -94.7^\circ$  ( $c = 0.41$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, K562,  $IC_{50} = 0.87\mu\text{g/mL}$ ; control *cis*-Platin,  $IC_{50} = 0.52\mu\text{g/mL}$ )<sup>[4732]</sup>. **Source:** LU SHI DONG LING CAO *Isodon rubescens* var. *lushiensis* (leaf: yield = 0.0004%dw)<sup>[4732]</sup>, ZI MAO XIANG CHA CAI *Isodon enanderianus*. **Ref:** 2030, 4732.

**6827 34-Epiannomolon A**

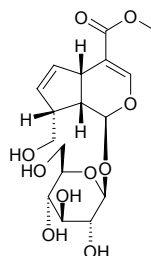
$C_{35}H_{62}O_7$  (594.88). White powder, mp 82.1~82.7°C,  $[\alpha]_D^{23} = -5.0^\circ$  ( $c = 0.02$ ,  $\text{CH}_2\text{Cl}_2$ ). **Pharm:** The data are from mixture of annomolon A and 34-epi-annomolon A: cytotoxic (BST,  $LC_{50} = 0.375\mu\text{g/mL}$ ); cytotoxic (*in vitro*, A549,  $ED_{50} = 1.26\mu\text{g/mL}$ ; MCF7,  $ED_{50} = 0.303\mu\text{g/mL}$ ; HT29,  $ED_{50} = 0.193\mu\text{g/mL}$ ; A498,  $ED_{50} = 0.93\mu\text{g/mL}$ ; PC3,  $ED_{50} = 0.198\mu\text{g/mL}$ ; MIA-PaCa-2,  $ED_{50} = 0.00312\mu\text{g/mL}$ ; control Adriamycin: A549,  $ED_{50} = 0.00113\mu\text{g/mL}$ ; MCF7,  $ED_{50} = 0.0182\mu\text{g/mL}$ ; HT29,  $ED_{50} = 0.0128\mu\text{g/mL}$ ; A498,  $ED_{50} = 0.00226\mu\text{g/mL}$ ; PC3,  $ED_{50} = 0.0502\mu\text{g/mL}$ ; MIA-PaCa-2,  $ED_{50} = 0.00262\mu\text{g/mL}$ ). **Source:** MAO YE FAN LI ZHI *Annona cherimolia* (seed). **Ref:** 4731.

**6828 34-Epiannomolon B**

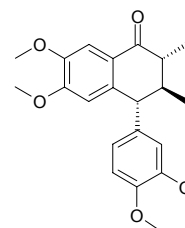
$C_{35}H_{62}O_8$  (610.88). White powder, mp 86.3~87.2°C,  $[\alpha]_D^{23} = +6.0^\circ$  ( $c = 0.02$ ,  $\text{CH}_2\text{Cl}_2$ ). **Pharm:** The data are from mixtures of annomolon B and 34-epi-annomolon B: cytotoxic (BST,  $LC_{50} = 0.07\mu\text{g/mL}$ ); cytotoxic (*in vitro*, A549,  $ED_{50} = 1.37\mu\text{g/mL}$ ; MCF7,  $ED_{50} = 0.047\mu\text{g/mL}$ ; HT29,  $ED_{50} = 0.0719\mu\text{g/mL}$ ; A498,  $ED_{50} = 0.377\mu\text{g/mL}$ ; PC3,  $ED_{50} = 0.0553\mu\text{g/mL}$ ; MIA-PaCa-2,  $ED_{50} = 0.00748\mu\text{g/mL}$ ; control Adriamycin: A549,  $ED_{50} = 0.00113\mu\text{g/mL}$ ; MCF7,  $ED_{50} = 0.0182\mu\text{g/mL}$ ; HT29,  $ED_{50} = 0.0128\mu\text{g/mL}$ ; A498,  $ED_{50} = 0.00226\mu\text{g/mL}$ ; PC3,  $ED_{50} = 0.0502\mu\text{g/mL}$ ; MIA-PaCa-2,  $ED_{50} = 0.00262\mu\text{g/mL}$ ). **Source:** MAO YE FAN LI ZHI *Annona cherimolia* (seed). **Ref:** 4731.

**6829 8-Epiapodantheroside**

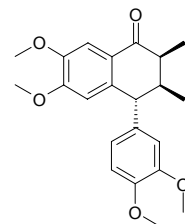
$C_{17}H_{24}O_{10}$  (388.37). Amorphous powder,  $[\alpha]_D^{25} = -128.6^\circ$  ( $c = 0.0715$ , MeOH). **Source:** ZHI ZI YE *Gardenia jasminoides* [Syn. *Gardenia florida*]. **Ref:** 4408.

**6830 (+)-8,8'-Epi-aristoligone**

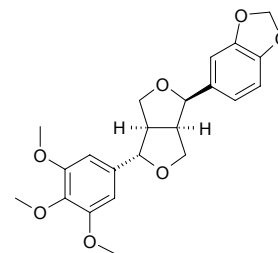
(7*R*,8*R*,8'*S*)-8,8'-Dimethyl-3',4',4,5-tetramethoxy-2,7'-cycloignan-7-one  $C_{22}H_{26}O_5$  (370.45). Yellow crystals, mp 146.5~149.3°C,  $[\alpha]_D^{25} = -30.0^\circ$  ( $c = 1.33$ ,  $\text{CHCl}_3$ ). **Source:** *Holostylis reniformis* (root). **Ref:** 3784.

**6831 (-)-8,8'-Epi-aristoligone**

(7*R*,8*S*,8'*S*)-8,8'-Dimethyl-3',4',4,5-tetramethoxy-2,7'-cycloignan-7-one  $C_{22}H_{26}O_5$  (370.45). Yellow crystals, mp 130.0~132.0°C,  $[\alpha]_D^{25} = -64.3^\circ$  ( $c = 1.04$ ,  $\text{CHCl}_3$ ). **Source:** *Holostylis reniformis* (root). **Ref:** 3784.

**6832 Epiaschantin**

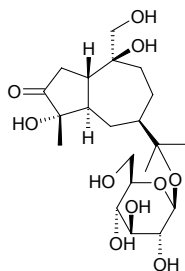
$C_{22}H_{24}O_7$  (400.43).  $[\alpha]_D^{20} = +95^\circ$  ( $c = 0.2$ ,  $\text{CHCl}_3$ ). **Source:** LIAN YE TONG *Hernandia Sonora* [Syn. *Hernandia ovigera*] (seed). **Ref:** 5030.



**6833 10-Epiatractyloside A**

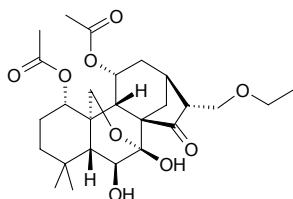
$C_{21}H_{36}O_{10}$  (448.52). Amorphous powder,  $[\alpha]_D^{22} = +14^\circ$  ( $c = 1.2$ , MeOH).

Source: CANG ZHU *Atractylodes lancea*, GUAN CANG ZHU *Atractylodes japonica* (fresh rhizome). Ref: 4310, 4348.

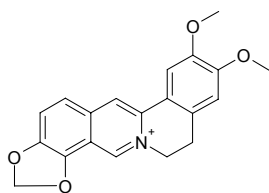
**6834 Epi-baiyecrystal C**

$C_{26}H_{38}O_9$  (494.59). mp 224–225.5°C,  $[\alpha]_D^{22.3} = -5.68^\circ$  ( $c = 0.26$ , MeOH).

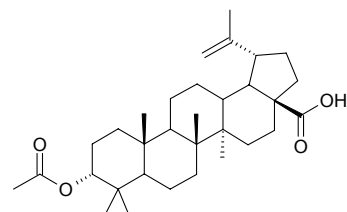
Source: BAI YE XIANG CHA CAI *Isodon leucophyllus*. Ref: 4067.

**6835 Epiberberine**

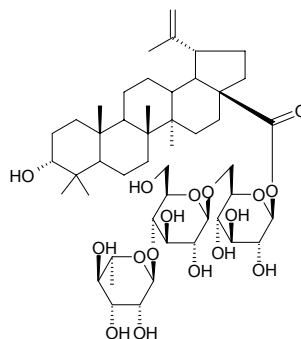
$C_{20}H_{18}NO_4$  (336.37). Pharm: Cytotoxic (topoisomerase I inhibitor *in vitro*)<sup>[5369]</sup>. Source: DUO HUA XIAO BO *Berberis floribunda*, HUANG LIAN *Coptis chinensis* (rhizome: mean content = 1.29%<sup>[5508]</sup>), NAN TIAN ZHU YE *Nandina domestica*, SAN JIAO YE HUANG LIAN *Coptis deltoidea* (rhizome: mean content = 0.54%<sup>[5508]</sup>), SAN YE HUANG LIAN *Coptis trifolia*. Ref: 1521, 5369, 5508.

**6836 3-Epi-betulnic acid acetate**

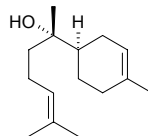
$C_{32}H_{50}O_4$  (498.75).  $[\alpha]_D^{26} = +75.1^\circ$  ( $c = 0.21$ , EtOH). Source: HUANG QI II *Engelhardia roxburghiana* (root). Ref: 5059.

**6837 3-Epibetulnic acid 28-O-α-L-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→6)-β-D-glucopyranoside**

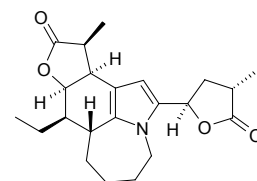
$C_{48}H_{78}O_{17}$  (927.15). White powder, mp 208–210 °C  $[\alpha]_D^{20} = -38.7^\circ$  ( $c = 0.4$ , MeOH). Source: DONG BEI CI REN SHEN *Oplopanax elatus*. Ref: 467, 1521.

**6838 (+)-4-Epi-α-bisabolol**

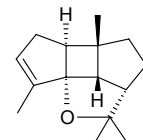
$C_{15}H_{26}O$  (222.37). Source: FEN CHA DANG GUI *Angelica furcujuga* (flower). Ref: 4454.

**6839 Epi-bisdehydrotuberostemonine J**

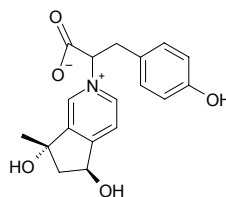
$C_{22}H_{29}NO_4$  (371.48). mp 186–188°C,  $[\alpha]_D^{20} = -16.1^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antitussive inactive (guinea pig cough model)<sup>[5463]</sup>. Source: BAI BU *Stemona tuberosa*. Ref: 5463.

**6840 (-)-(1S\*,5S\*,6S\*,7S\*,10S\*)-7-Epi-bourbon-3-en-5,11-oxide**

$C_{15}H_{22}O$  (218.34). Colorless oil. Source: XIAO E TAI *Mylia taylorii* (essential oil), LUO XIAO E TAI *Mylia nuda* (essential oil). Ref: 3840.

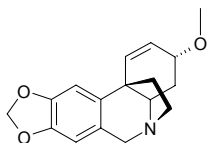
**6841 Epibueropteridinium A**

$C_{18}H_{19}NO_5$  (329.36). Colorless hyaloid oil. Source: XUAN SHEN *Scrophularia ningpoensis*. Ref: 8.

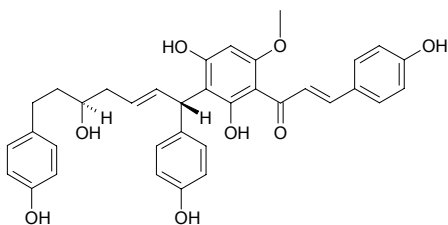


**6842 Epibuphanisine**

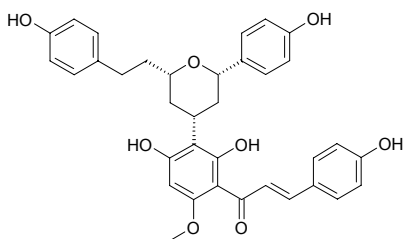
$C_{17}H_{19}NO_3$  (285.35). **Pharm:** AChE inhibitor ( $IC_{50} = (547 \pm 5) \mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (1.9 \pm 0.2) \mu\text{mol/L}$ ). **Source:** *Crinum moorei*. **Ref:** 4952.

**6843 Epicalyxin B**

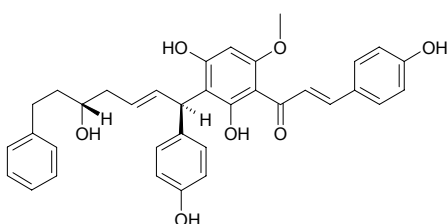
$C_{35}H_{34}O_8$  (582.66). **Source:** ZHU SUI SHAN JIANG *Alpinia pinnanensis* (rhizome). **Ref:** 4522.

**6844 Epicalyxin F**

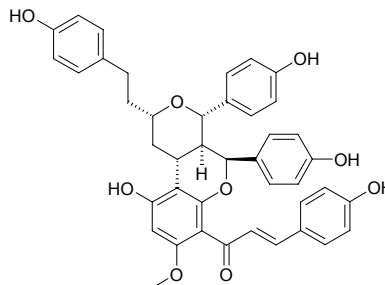
$C_{35}H_{34}O_8$  (582.66). Light yellow amorphous solid,  $[\alpha]_D^{25} = +103.1^\circ$  ( $c = 0.05$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 0.89 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 1.71 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: 0.000043%). **Ref:** 3035.

**6845 Epicalyxin H**

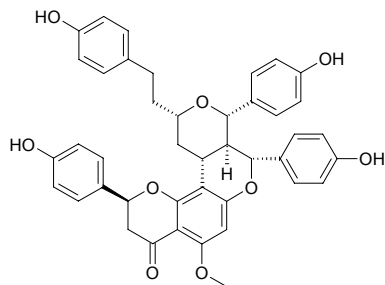
$C_{35}H_{34}O_7$  (566.66). **Source:** ZHU SUI SHAN JIANG *Alpinia pinnanensis* (rhizome). **Ref:** 4522.

**6846 Epicalyxin I**

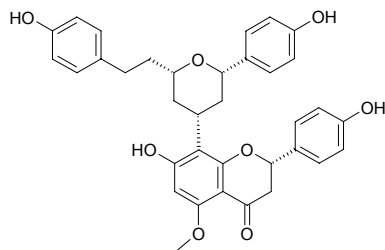
$C_{42}H_{38}O_9$  (686.77). Light yellow amorphous solid,  $[\alpha]_D^{25} = +28.3^\circ$  ( $c = 0.025$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 12.1 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 5.88 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ )<sup>[3035]</sup>. **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000040%<sup>[3035]</sup>; yield = 0.000040%<sup>[3048]</sup>). **Ref:** 3035, 3048.

**6847 Epicalyxin J**

$C_{42}H_{38}O_9$  (686.77). Light yellow amorphous solid. **Pharm:** Cytotoxic (mixture of calyxin J and epicalyxin J (1:1): Colon26-L5,  $ED_{50} = 13.7 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 0.32 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000056%). **Ref:** 3035.

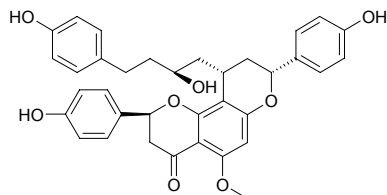
**6848 Epicalyxin K**

$C_{35}H_{34}O_8$  (582.66). Pale yellow amorphous solid,  $[\alpha]_D^{25} = -17.0^\circ$  ( $c = 0.085$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 33.0 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 4.75 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000017%). **Ref:** 3035.

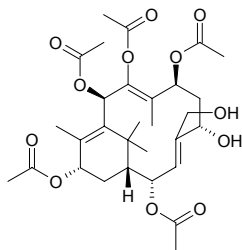


**6849 Epicalyxin M**

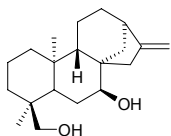
$C_{35}H_{34}O_8$  (582.66). Yellow amorphous solid (An epimeric mixture of calyxin M and epicalyxin M). **Pharm:** Cytotoxic (mixture of calyxin M and epicalyxin M (3:2): Colon26-L5,  $ED_{50} = 42.1 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 10.1 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed). **Ref:** 3035.

**6850 5-Epicanadense**

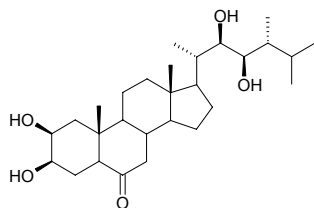
$C_{30}H_{42}O_{12}$  (594.66). **Source:** JIA NA DA HONG DOU SHAN *Taxus canadensis*. **Ref:** 662.

**6851 7-Epicandicandiol**

$C_{20}H_{32}O_2$  (304.48). Colorless needles ( $\text{CHCl}_3$ ). **Source:** *Sideritis ozturkii* (aerial parts). **Ref:** 3827.

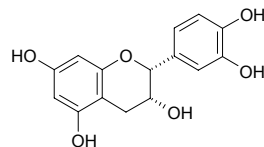
**6852 24-Epicasterone**

$C_{28}H_{48}O_5$  (464.69). **Source:** YANG JIAN QIU LUO *Lychnis viscaria*. **Ref:** 2418.

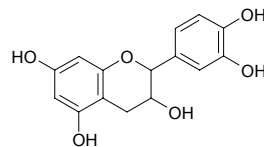
**6853 (-)-Epicatechin**

5,7,3',4',-Tetrahydroxyflavanol  $C_{15}H_{14}O_6$  (290.28). mp  $242^\circ\text{C}$ ,  $[\alpha]_D = -68.2^\circ$  (96% ethanol). **Pharm:** Antiallergic; antibacterial; anti-inflammatory; antimutagenic; inhibits lactic acid bacteria; antioxidant (inhibits free-radical induced lysis of rat red blood cells and exhibits strong and dose-dependent protection of cell membrane)<sup>[5341]</sup>; cholinesterase inhibitor; antihypercholesterolemic (reduces the level of cholesterol in serum); antioxidant (DPPH free radical scavenger, for  $40 \mu\text{mol/L}$  DPPH radical,  $SC_{50} = 4.1 \mu\text{mol/L}$ )<sup>[4378]</sup>; DPPH scavenger ( $IC_{50} = 8.5 \mu\text{g/mL}$ );  $\beta$ -hexosaminidase inhibitor inactive (RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase,  $100 \mu\text{mol/L}$ , InRt =  $(-3.9 \pm 1.2)\%$ )<sup>[4304]</sup>;

inhibits cancer cell invasion (MM1 cells, *in vitro*,  $10 \mu\text{g/mL}$ , InRt =  $20.3\%$ )<sup>[4329]</sup>; bone marrow cell proliferation promotor ( $1\sim 100 \text{mg/mL}$ , promotes proliferation of cultured bone marrow cells, stimulates formation of myeloid colonies and enhances the effect of IL-3 to increase the number of colony forming-units in culture (CFU-c))<sup>[5390]</sup>; bone marrow cell proliferation promoter (*ex vivo*, model mouse of decreasing bone marrow functions, orally  $100 \text{mg}/(\text{kg}\cdot\text{d})$ , stimulates IL-3-induced CFU-c formation of bone marrow cells)<sup>[5390]</sup>; antioxidant (DPPH free radical scavenger,  $10 \mu\text{mol/L}$ , ScRt =  $82\%$ , control BHT,  $10 \mu\text{mol/L}$ , ScRt =  $43\%$ )<sup>[5319]</sup>; antioxidant (DPPH free radical scavenger,  $IC_{50} = 8.5 \mu\text{g/mL}$ )<sup>[3028]</sup>. **Source:** A LA BO JIAO JIN HE HUAN *Acacia nilotica*, AN MO LE *Phyllanthus emblica* (branch and leaf)<sup>[3094]</sup>, BAI GUO *Ginkgo biloba*, BI LU GOU TENG *Uncaria tomentosa*, CAO YUAN LAO GUAN CAO *Geranium pratense*, CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], DAN ZI SHAN ZHA *Crataegus monogyna*, DAO NIAN ZI *Garcinia mangostana* (fruit hull)<sup>[3066]</sup>, E RONG WEI LING CAI *Potentilla anserina*, ER CHA GOU TENG *Uncaria gambir* (dried decocted extract of trunk: content scope of 10 origins =  $1.57\%\sim 3.84\%$ ; mean content =  $2.45\%$ )<sup>[5508]</sup>, GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*], GUAN YE LIAN QIAO *Hypericum perforatum*, HAI ER CHA *Acacia catechu* (dried decocted extract of trunk: content scope of 8 origins =  $7.56\%\sim 14.20\%$ ; mean content =  $11.3\%$ )<sup>[5508]</sup>, HEI ZI LI GUO JI SHENG *Scurrula atropurpurea*, HONG QI YE SHU *Aesculus carnea*, JIA ZHOU QI YE SHU *Aesculus californica*, JIAN PU ZHAI GU KE *Erythroxylum cambodianum* (aerial parts), LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*], MAO GUO QI *Acer nikoense* (stem cortex), MEI LI TENG HUANG *Garcinia speciosa* (trunk bark and stems), NAN SHE TENG *Celastrus orbiculatus* [Syn. *Celastrus articulatus*] (aerial parts: yield =  $0.050\% \text{dw}$ )<sup>[3028]</sup>, QUAN SHEN *Polygonum bistorta*, SHA ZAO *Elaeagnus angustifolia*, SHAN CHA *Camellia japonica*, SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*] (stem), TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), TUO YUAN GOU TENG *Uncaria elliptica*, YUE JU YE *Vaccinium vitis-idaea*, ZHU BAI *Myrica nagi* [Syn. *Podocarpus nagi*], *Pterocarpus* sp., occurs in many plants. **Ref:** 6, 658, 661, 1521, 3028, 3066, 3094, 4304, 4329, 4378, 4461, 5319, 5341, 5375, 5390, 5491, 5508.

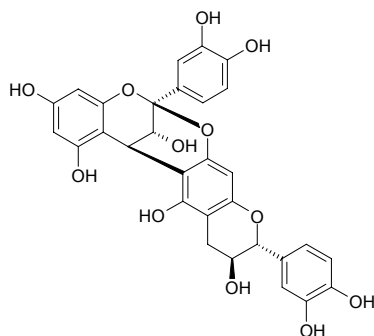
**6854 Epicatechin**

Epicatechol  $C_{15}H_{14}O_6$  (290.28). mp (+)  $245^\circ\text{C}$  (dec), (-)  $245^\circ\text{C}$  (dec), (+/-)  $224\sim 226^\circ\text{C}$  (dec). **Pharm:** antioxidant (DPPH radical scavenger,  $IC_{50} = 1.7 \mu\text{g/mL}$ ; control Ascorbic acid,  $IC_{50} = 3.9 \mu\text{g/mL}$ )<sup>[4711]</sup>. **Source:** BAI GUO YE *Ginkgo biloba*, DA HUANG *Rheum officinale*, HAI ER CHA *Acacia catechu*, SHAN LI HONG *Crataegus pinnatifida* var. *major*, SHAN ZHA *Crataegus pinnatifida*, TANG GU TE DA HUANG *Rheum tanguticum*, YE SHAN ZHA *Crataegus cuneata*, ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (root: yield =  $0.033\% \text{dw}$ )<sup>[4711]</sup>, ZHAI YE BAN FENG HE *Pterospermum lanceaeifolium*, ZHANG YE DA HUANG *Rheum palmatum*. **Ref:** 2, 6, 433, 660, 4711, 5375.

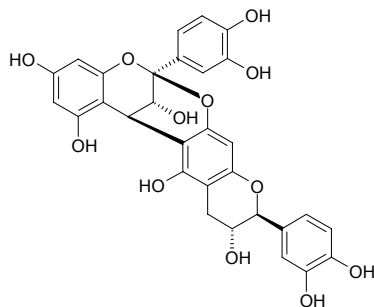


**6855 Epicatechin-(2 $\beta$ →O→7,4 $\beta$ →6)-catechin**

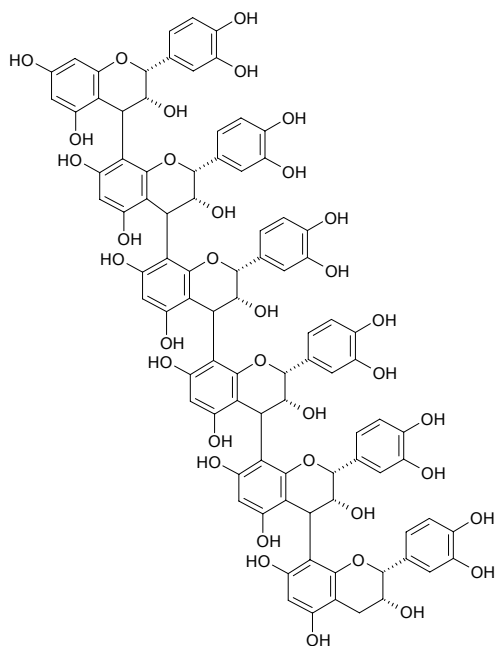
C<sub>30</sub>H<sub>24</sub>O<sub>12</sub> (576.52). Colorless needles (H<sub>2</sub>O), mp 271~273°C (dec), [ $\alpha$ ]<sub>D</sub> = +10.12° (c = 1.05, acetone). **Pharm:** Hyaluronidase inhibitor. **Source:** LUO HUA SHENG *Arachis hypogaea*. **Ref:** 2284.

**6856 Epicatechin-(2 $\beta$ →O→7,4 $\beta$ →6)-ent-epicatechin**

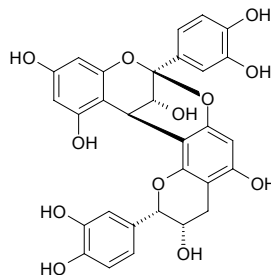
C<sub>30</sub>H<sub>24</sub>O<sub>12</sub> (576.52). White amorphous powder (H<sub>2</sub>O); mp 262°C (dec). **Pharm:** Hyaluronidase inhibitor. **Source:** LUO HUA SHENG *Arachis hypogaea*. **Ref:** 2284.

**6857 [Epicatechin-(4 $\beta$ →8)] 5-epicatechin**

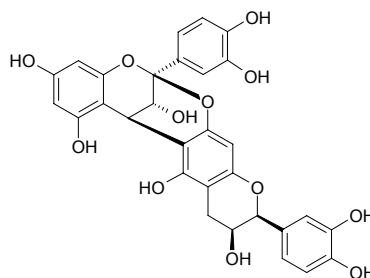
C<sub>90</sub>H<sub>74</sub>O<sub>36</sub> (1731.57). **Pharm:** Tanning agent. **Source:** ROU GUI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*]. **Ref:** 658.

**6858 Epicatechin-(2 $\beta$ →O→7,4 $\beta$ →8)-ent-epicatechin**

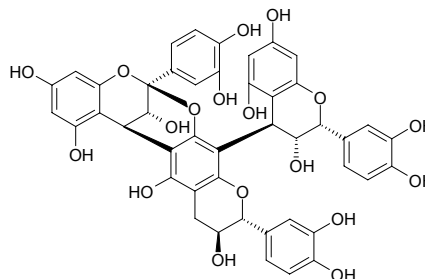
C<sub>30</sub>H<sub>24</sub>O<sub>12</sub> (576.52). White crystalline powder (H<sub>2</sub>O), mp 260°C (dec). **Pharm:** Hyaluronidase inhibitor. **Source:** LUO HUA SHENG *Arachis hypogaea*. **Ref:** 2284.

**6859 Epicatechin-(4 $\beta$ →6,2 $\beta$ →O→7)-ent-epicatechin**

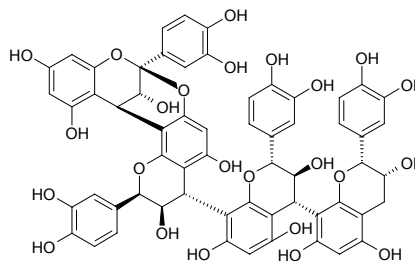
C<sub>30</sub>H<sub>24</sub>O<sub>12</sub> (576.52). White amorphous powder (H<sub>2</sub>O/MeOH); mp 280°C (dec). **Pharm:** Hyaluronidase inhibitor. **Source:** LUO HUA SHENG *Arachis hypogaea*. **Ref:** 2284.

**6860 Epicatechin-(2 $\beta$ →O→7,4 $\beta$ →6)-[epicatechin-(4 $\beta$ →8)]-catechin**

C<sub>45</sub>H<sub>36</sub>O<sub>18</sub> (864.78). Off-white amorphous powder, mp 272°C (dec), [ $\alpha$ ]<sub>D</sub> = +86.2° (c = 0.3, acetone). **Pharm:** Antioxidant (DPPH scavenger, IC<sub>50</sub> = (1.21±0.11)μmol/L; control EGG, IC<sub>50</sub> = (1.13±0.08)μmol/L). **Source:** LUO HUA SHENG *Arachis hypogaea* (seed). **Ref:** 3848.

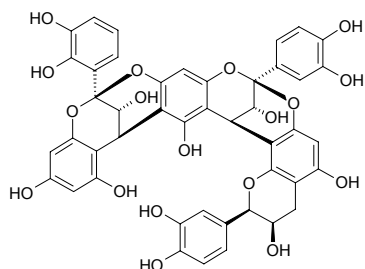
**6861 Epicatechin-(2 $\beta$ →O→7,4 $\beta$ →8)epicatechin-(4 $\alpha$ →8)-catechin-(4 $\alpha$ →8)-epicatechin**

C<sub>60</sub>H<sub>48</sub>O<sub>24</sub> (1153.04). Off-white amorphous powder, mp 260°C (dec), [ $\alpha$ ]<sub>D</sub> = +27.6° (c = 0.3, acetone). **Pharm:** Antioxidant (DPPH scavenger, IC<sub>50</sub> = (1.32±0.16)μmol/L; control EGG, IC<sub>50</sub> = (1.13±0.08)μmol/L). **Source:** LUO HUA SHENG *Arachis hypogaea* (seed). **Ref:** 3848.

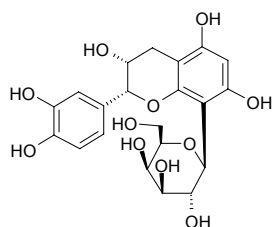


**6862 Epicatechin-(2 $\beta$ →O→7,4 $\beta$ →6)-epicatechin-(2 $\beta$ →O→7,4 $\beta$ →8)-epicatechin**

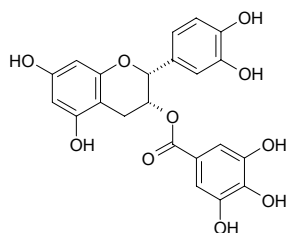
C<sub>45</sub>H<sub>34</sub>O<sub>18</sub> (862.76). Pale yellow amorphous powder,  $[\alpha]_D^{21} = +184.9^\circ$  ( $c = 1.08$ , MeOH). Source: CHANG JIE ZHU *Parameria laevigata* (bark). Ref: 3523.

**6863 Epicatechin-8-C- $\beta$ -D-galactopyranoside**

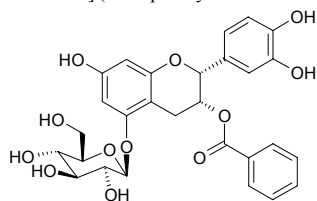
C<sub>21</sub>H<sub>24</sub>O<sub>11</sub> (452.42). Light-brown amorphous powder,  $[\alpha]_D = -25.8^\circ$  ( $c = 0.9$ , MeOH). Pharm: Antioxidant (inhibits NADPH-dependent lipid peroxidation in microsomes and autoxidation of linoleic acid); antioxidant (DPPH scavenger, effective). Source: KE KE *Theobroma cacao*. Ref: 2023.

**6864 (-)-Epicatechin-3-O-gallate**

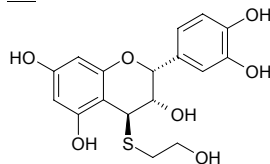
Galloylepicatechin C<sub>27</sub>H<sub>18</sub>O<sub>10</sub> (442.38). mp 253°C. Pharm: Inhibits cancer cell invasion (MM1 cells, *in vitro*, 10 $\mu$ g/mL, InRt = 59.9%)<sup>[4329]</sup>; bone marrow cell proliferation promotor (100mg/mL, stimulates formation of myeloid colonies)<sup>[5390]</sup>. Source: CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], DA HUANG *Rheum officinale*, HEI ZI LI GUO JI SHENG *Scurrura atropurpurea*, ZHANG YE DA HUANG *Rheum palmatum*, TANG GU TE DA HUANG *Rheum tanguticum*, TAO GEN *Prunus persica*. Ref: 2, 6, 660, 4329, 5390.

**6865 (-)-Epicatechin-5-O- $\beta$ -D-glucopyranosyl-3-benzoate**

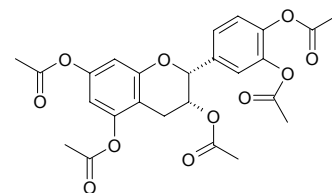
C<sub>28</sub>H<sub>28</sub>O<sub>12</sub> (556.53). Bright pink needles (CH<sub>2</sub>Cl<sub>2</sub>:MeOH = 1:1), mp 191~192°C;  $[\alpha]_D^{25} = -95^\circ$  ( $c = 0.3$ , MeOH). Pharm: Antioxidant (DPPH scavenger, IC<sub>50</sub> = 25 $\mu$ g/mL)<sup>[3028]</sup>. Source: NAN SHE TENG *Celastrus orbiculatus* [Syn. *Celastrus articulatus*] (aerial parts: yield = 0.0026%dw). Ref: 3028.

**6866 (-)-Epicatechin 4-(2-hydroxyethyl)thio ether**

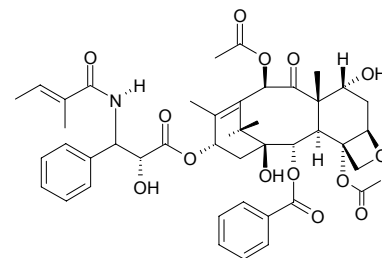
C<sub>17</sub>H<sub>18</sub>O<sub>7</sub>S (366.39). Source: XIAO GUO YE JIAO *Musa acuminata* (fruit). Ref: 3913.

**6867 (-)-Epicatechin-pentaacetate**

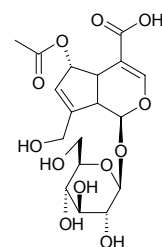
C<sub>25</sub>H<sub>24</sub>O<sub>11</sub> (500.46). Source: BAI GUO *Ginkgo biloba*. Ref: 2.

**6868 7-Epicephalommannine**

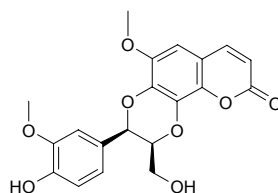
C<sub>45</sub>H<sub>52</sub>NO<sub>14</sub> (831.92). mp 210°C,  $[\alpha]_D = -7.32^\circ$  (MeOH). Source: ZA JIAO JIE ZHI HONG DOU SHAN *Taxus x media*. Ref: 662.

**6869 6-O-Epiacetylscandoside**

C<sub>18</sub>H<sub>24</sub>O<sub>12</sub> (432.38). White amorphous powder,  $[\alpha]_D^{19} = -94.6^\circ$  ( $c = 0.19$ , MeOH). Source: MA LAI BAN DAO RAN MU SHU *Saprosma scortechinii* (stem and leaf). Ref: 4219.

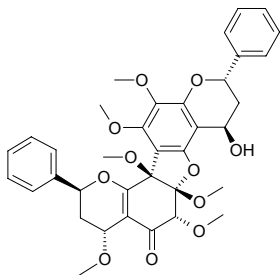
**6870 8'-Epi-cleomiscosin A**

C<sub>20</sub>H<sub>18</sub>O<sub>8</sub> (386.36). Amorphous powder,  $[\alpha]_D^{25} = +15.5^\circ$  ( $c = 0.1$ , C<sub>5</sub>D<sub>5</sub>N). Pharm: Tyrosinase inhibitor (IC<sub>50</sub> = (1.33±1.06) $\mu$ mol/L, control Kojic acid, IC<sub>50</sub> = (16.67±0.52) $\mu$ mol/L, *L*-Mimosine, IC<sub>50</sub> = (3.68±0.02) $\mu$ mol/L). Source: A FU HAN DU JUAN HUA *Rhododendron collettianum*. Ref: 2544.

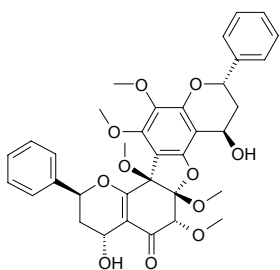


**6871 6''-Epi-calyflorenone B**

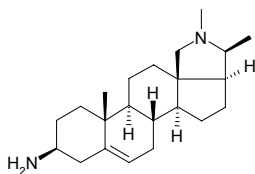
$C_{36}H_{38}O_{11}$  (646.70). Pale amorphous solid, mp 110~112°C (Et<sub>2</sub>O–petrol),  $[\alpha]_D^{20} = -30.05^\circ$  ( $c = 0.183$ ). Source: E CHI TENG *Calycopteris floribunda* (green part). Ref: 3779.

**6872 6''-Epi-calyflorenone C**

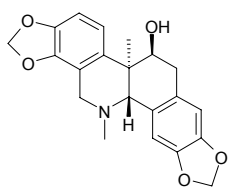
$C_{35}H_{36}O_{11}$  (632.67). Pale amorphous solid, mp 117~119°C (Et<sub>2</sub>O–petrol),  $[\alpha]_D^{20} = -21.86^\circ$  ( $c = 0.183$ ). Source: E CHI TENG *Calycopteris floribunda* (green part). Ref: 3779.

**6873 3-Epiconamine**

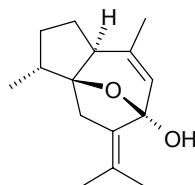
$C_{22}H_{36}N_2$  (328.55). mp 95~100°C. Source: ZHI XIE MU PI *Holarhena antidyenterica*. Ref: 6.

**6874 (+)-14-Epicorynoline**

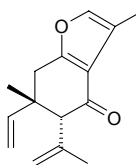
[51151-82-7]  $C_{21}H_{21}NO_5$  (367.41). Source: ZI HUA YU DENG CAO *Corydalis incisa*. Ref: 6.

**6875 4-Epicurcumenol**

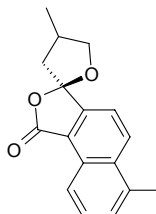
$C_{15}H_{22}O_2$  (234.34). Colorless oil,  $[\alpha]_D^{26} = +120.1^\circ$  ( $c = 1.8$ , CHCl<sub>3</sub>). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (40.1±1.4)%, control L-NMMA, 100μmol/L, InRt = (79.2±0.9)%,  $p < 0.01$ ). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

**6876 Epicurzerenone**

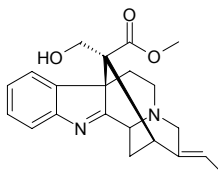
$C_{15}H_{18}O_2$  (230.31). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 6.

**6877 Epidanshenspiroketallactone**

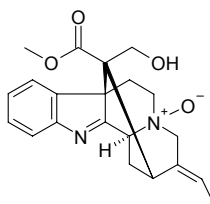
$C_{17}H_{16}O_3$  (268.32). Source: DAN SHEN *Salvia miltiorrhiza*, GAN XI SHU WEI CAO *Salvia przewalskii*. Ref: 1521, 4538.

**6878 16-Epideacetylakuammiline**

$C_{21}H_{24}N_2O_3$  (352.44). Source: HONG HUA RUI MU *Kopsia fruticosa* (leaf). Ref: 3830.

**6879 16-Epideacetylakuammiline N(4)-oxide**

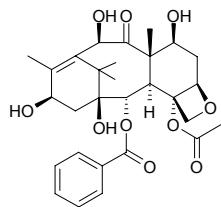
$C_{21}H_{24}N_2O_4$  (368.44).  $[\alpha]_D = -66^\circ$  ( $c = 0.15$ , CHCl<sub>3</sub>). Source: MA LAI XI YA RUI MU *Kopsia griffithii*. Ref: 1854.



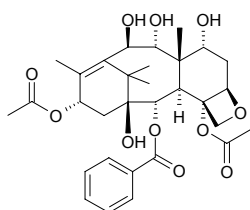


**6880 13-Epi-10-deacetylbaecatin III**

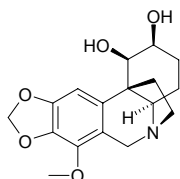
$C_{29}H_{36}O_{10}$  (544.60). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**6881 7-Epi-9,10-deacetylbaecatin VI**

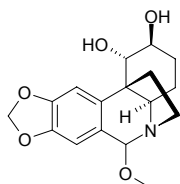
$C_{31}H_{40}O_{11}$  (588.66). Source: JIA NA DA HONG DOU SHAN *Taxus canadensis*. Ref: 662.

**6882 1-Epideacetylbowdensine**

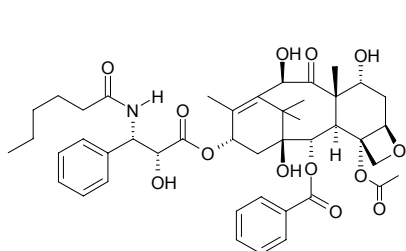
$C_{17}H_{21}NO_5$  (319.36). Source: GUAN MU WEN SHU LAN *Crinum macowanii* (bulb). Ref: 4000.

**6883 1-Epideacetylbowdensine‡**

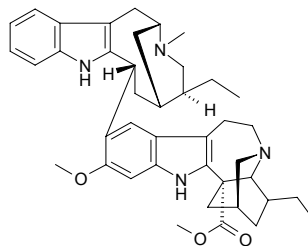
$C_{17}H_{21}NO_5$  (319.36). Source: *Crinum moorei*. Ref: 4952.

**6884 7-Epi-10-deacetyltaxuyunnanine A**

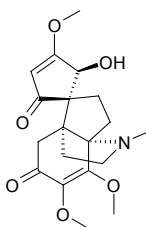
7-Epi-10-deacetyltaxol; Taxuspinanane E  $C_{44}H_{55}NO_{13}$  (805.93).  $[\alpha]_D = -22.9^\circ$  (MeOH). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis*, ZI SHAN *Taxus cuspidata*. Ref: 662.

**6885 20-Epi-16'-decarbomethoxy-conoduramine**

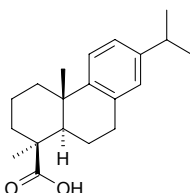
$C_{41}H_{54}N_4O_3$  (650.91). Source: YAO YONG GOU YA HUA *Ervatamia officinalis*. Ref: 799.

**6886 1-Epidechloroacutumine**

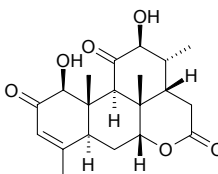
$C_{19}H_{25}NO_6$  (363.41).  $[\alpha]_D^{25} = -45^\circ$  ( $c = 0.2$ , MeOH). Source: BIAN FU GE *Menispermum dauricum*. Ref: 1946.

**6887 4-Epidehydroabietic acid**

[5155-70-4]  $C_{20}H_{28}O_2$  (300.44). White amorphous powder. Source: JIA DI FENG PI *Illicium jiadifengpi* (bark). Ref: 4560.

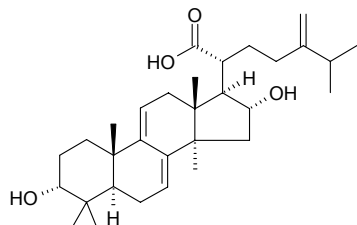
**6888 12-Epi-11-dehydroklaineanone**

$C_{20}H_{26}O_6$  (362.43). Colorless glassy resin,  $[\alpha]_D^{25} = -11.2^\circ$  ( $c = 0.1$ , MeOH). Pharm: Plant growth inhibitor (Cucumber seedling, root growth,  $IC_{50} > 200\mu\text{mol/L}$ , shoot growth,  $IC_{50} > 200\mu\text{mol/L}$ ; Rice seedling, root growth,  $IC_{50} > 200\mu\text{mol/L}$ , shoot growth,  $IC_{50} > 200\mu\text{mol/L}$ )<sup>[5215]</sup>. Source: CHANG YE KUAN MU *Eurycoma longifolia* (leaf). Ref: 5215.

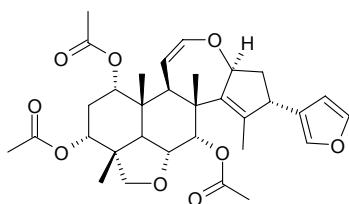


**6889 3-Epidehydrotumulosic acid**

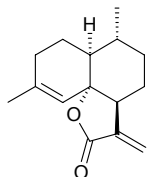
$C_{31}H_{48}O_4$  (484.73). **Pharm:** Antineoplastic (EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = 0% (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 70%; reference compound  $\beta$ -Carotene, relative percentage = 8.6%). **Source:** FU LING *Poria cocos* (sclerotium: yield = 0.00029%dw). **Ref:** 4616.

**6890 17-Epi-12-dehydroxyheudebolin**

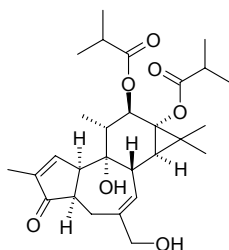
$C_{32}H_{40}O_9$  (568.67). White crystals (hexane-EtOAc), mp 122~124°C,  $[\alpha]_D^{20} = -190.1^\circ$  ( $c = 1.3$ ,  $CHCl_3$ ). **Source:** *Turreanthus africanus* (seed). **Ref:** 3884.

**6891 Epideoxyartemisinin B**

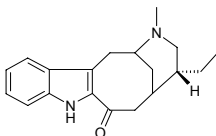
Deoxyisoartemisinin B  $C_{15}H_{20}O_2$  (232.33). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 660, 5224.

**6892 4-Epi-4-deoxyphorbol 12,13-bis(isobutyrate)**

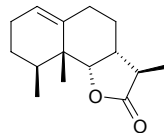
[250258-02-7]  $C_{28}H_{40}O_7$  (488.63). Oil,  $[\alpha]_D = +3^\circ$  ( $c = 0.7$ ,  $CHCl_3$ ). **Source:** DUN YE DA JI *Euphorbia obtusifolia* var. *obtusifolia*. **Ref:** 2365.

**6893 20-Epi-19,20-dihydro-decarbomethoxy vobasine**

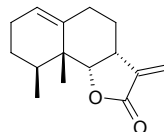
$C_{19}H_{24}N_2O$  (296.42). **Source:** YAO YONG GOU YA HUA *Ervatamia officinalis*. **Ref:** 799.

**6894 5-Epidilatanolide A**

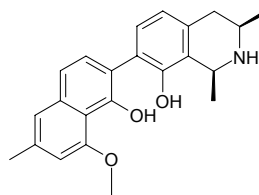
$C_{15}H_{22}O_2$  (234.34). Colorless solid, mp 106~107°C,  $[\alpha]_D = -21.5^\circ$  ( $c = 0.40$ ,  $CHCl_3$ ). **Source:** BA XI ER YE TAI *Frullania brasiliensis*. **Ref:** 1981.

**6895 5-Epidilatanolide B**

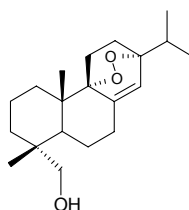
$C_{15}H_{20}O_2$  (232.33). Colorless oil,  $[\alpha]_D = +50.8^\circ$  ( $c = 0.27$ ,  $CHCl_3$ ). **Source:** BA XI ER YE TAI *Frullania brasiliensis*. **Ref:** 1981.

**6896 1-Epi-dioncophylline B**

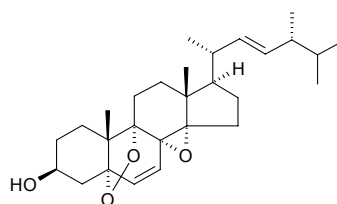
$C_{23}H_{25}NO_3$  (363.46). **Pharm:** Antimalarial (*Plasmodium falciparum* K1,  $IC_{50} = 155$ ng/mL, NF54,  $IC_{50} = 273$ ng/mL, MIC > 200µg/mL). **Source:** SAN YE MU *Triphyophyllum peltatum* (leaf). **Ref:** 3962.

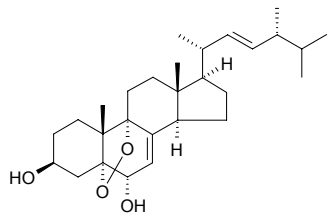
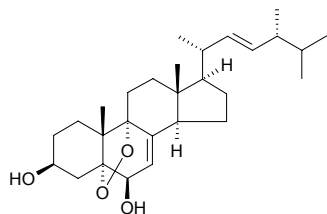
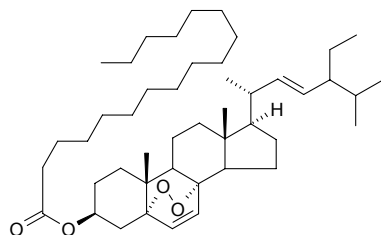
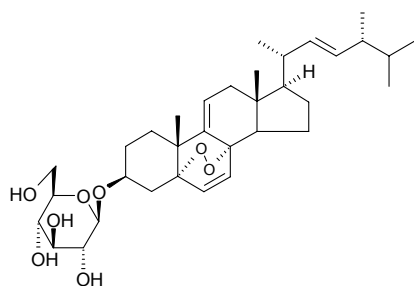
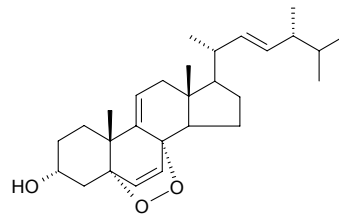
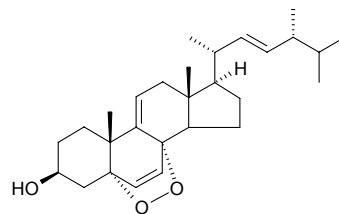
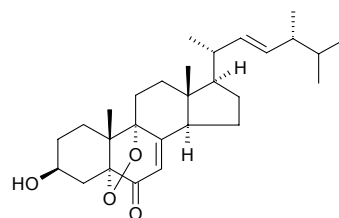
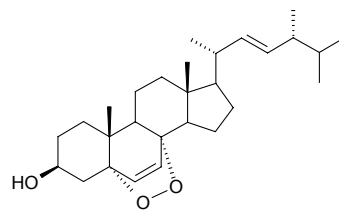
**6897 9α,13α-Epi-dioxiabiet-8(14)-en-18-ol**

$C_{20}H_{32}O_3$  (320.48). Colorless oil,  $[\alpha]_D = -51.8^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (A549,  $IC_{50} > 5$ µg/mL; H116,  $IC_{50} > 5$ µg/mL; PSN1,  $IC_{50} > 5$ µg/mL; T98G,  $IC_{50} > 5$ µg/mL; SKBR3,  $IC_{50} > 5$ µg/mL). **Source:** BEI FEI XUE SONG *Cedrus atlantica* (cone). **Ref:** 5248.

**6898 5α,9α-Epidioxy-8α,14α-epoxy-(22E)-ergosta-6,22-dien-3β-ol**

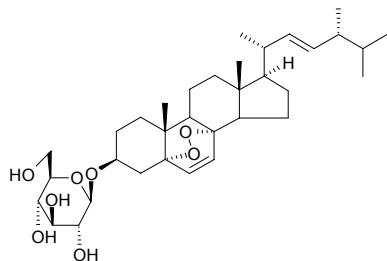
$C_{28}H_{42}O_4$  (442.64). Colorless amorphous solid,  $[\alpha]_D^{19} = -33.9^\circ$  ( $c = 0.06$ ,  $CHCl_3$ ). **Source:** HOU SHU SHAN GU *Panellus serotinus*, *Pleurotus eryngii*. **Ref:** 4183.



**6899 5 $\alpha$ ,9 $\alpha$ -Epidioxy-(22E)-ergosta-7,22-diene-3 $\beta$ ,6 $\alpha$ -diol**C<sub>28</sub>H<sub>44</sub>O<sub>4</sub> (444.66). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -8.8° (c = 0.1, CHCl<sub>3</sub>).Source: HOU SHU SHAN GU *Panellus serotinus*. Ref: 3526.**6900 5 $\alpha$ ,9 $\alpha$ -Epidioxy-(22E)-ergosta-7,22-diene-3 $\beta$ ,6 $\beta$ -diol**C<sub>28</sub>H<sub>44</sub>O<sub>4</sub> (444.66). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>19</sup> = -24.4° (c = 0.08, CHCl<sub>3</sub>).Source: ZI DING XIANG MO *Lepista nuda*, HOU SHU SHAN GU *Panellus serotinus*, SONG XUN *Tricholoma matsutake* [Syn. *Armillaria matsutake*], *Pleurotus eryngii*. Ref: 3526, 4183.**6901 5 $\alpha$ ,8 $\alpha$ -Epidioxyergosta-6,22-dien-3 $\beta$ -yl stearate**C<sub>46</sub>H<sub>78</sub>O<sub>4</sub> (695.18). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +13° (c = 0.2, CH<sub>2</sub>Cl<sub>2</sub>). Pharm: Antitubercular (*Mycobacterium tuberculosis* growth inhibitor, MIC = 4 $\mu$ g/mL). Source: *Ruprechtia triflora* (aerial parts).Ref: 5416.**6902 (22E,24R)-5 $\alpha$ ,8 $\alpha$ -Epidioxyergosta-6,9,22-triene-3 $\beta$ -ol 3-O- $\beta$ -D-glycopyranoside**C<sub>34</sub>H<sub>52</sub>O<sub>8</sub> (588.79). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +5.6° (c = 2.0, MeOH).Source: *Chlorophyllum molybdites*. Ref: 4112.**6903 5 $\alpha$ ,8 $\alpha$ -Epidioxyergosta-6,9(11),22-trien-3 $\alpha$ -ol**C<sub>28</sub>H<sub>42</sub>O<sub>3</sub> (426.65). Source: JIA LIAN QIAO *Duranta repens* (whole herb).Ref: 4179.**6904 5 $\alpha$ ,8 $\alpha$ -Epidioxyergosta-6,9(11),22-trien-3 $\beta$ -ol**9(11)-Dehydroergosterol peroxide C<sub>28</sub>H<sub>42</sub>O<sub>3</sub> (426.65). White needles (EtOAc).Source: AI LI SI DUO KONG JUN *Polyporus ellisii*, JIA LIAN QIAO *Duranta repens* (whole herb). Ref: 2435, 4179.**6905 5 $\alpha$ ,9 $\alpha$ -Epidioxy-3 $\beta$ -hydroxy-(22E)-ergosta-7,22-dien-6-one**C<sub>28</sub>H<sub>42</sub>O<sub>4</sub> (442.64). Source: *Pleurotus eryngii*. Ref: 4183.**6906 5 $\alpha$ ,8 $\alpha$ -Epidioxy-24(R)-methylcholesta-6,22-diene-3 $\beta$ -ol**Ergosterol peroxide C<sub>28</sub>H<sub>44</sub>O<sub>3</sub> (428.66). Colorless needles, mp 180~182°C,[ $\alpha$ ]<sub>D</sub> = -33.3 (c = 0.3, CHCl<sub>3</sub>). Pharm: DNA Topoisomerase I Inhibitor (inhibits the relaxation of supercoiled DNA (pBR322) induced by DNA topoisomerase I); cytotoxic (marginal activity, selective cytotoxic activity against hmn colon tumor cells, Colon205 ED<sub>50</sub> = 8.56 $\mu$ g/mL). Source: *Penicillium oxalicum*. Ref: 5046.

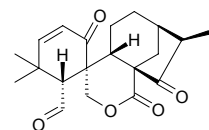
**6907 5 $\alpha$ ,8 $\alpha$ -Epidioxy-24(R)-methylcholesta-6,22-dien-3 $\beta$ -D-glucopyranoside**

[140447-22-9] C<sub>34</sub>H<sub>54</sub>O<sub>8</sub> (590.80). **Pharm:** Antiproliferative (K562, Jurkat, WM-1341, HL-60 and RPMI-8226 tumor cell lines, 10 $\mu$ g/mL, greater inhibitor by 10% to 40% than 5 $\alpha$ , 8 $\alpha$ -Epidioxy-24(R)-methylcholesta-6, 22-dien-3 $\beta$ -ol). **Source:** DONG CHONG XIA CAO *Cordyceps sinensis*. **Ref:** 2322.



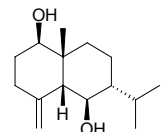
**6908 Epi-ericalyxin A**

C<sub>20</sub>H<sub>24</sub>O<sub>5</sub> (344.41). **Source:** MAO E XIANG CHA CAI *Rabdosia ericalyx*. **Ref:** 4067.



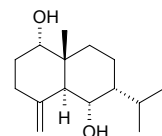
**6909 5-Epi-eudesm-4(15)-ene-1 $\beta$ ,6 $\beta$ -diol**

C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Colorless monoclinic crystals (petroleum ether–EtOAc), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –88° (c = 0.6, CHCl<sub>3</sub>); white powder, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +36.5° (c = 0.32, CHCl<sub>3</sub>). **Pharm:** Anti-HIV (MT-2 cell infected by HIV-IIIB virus, 10 $\mu$ g/mL, weak activity)<sup>[4786]</sup>; anti-HIV-1 (HIV-1 replication inhibitor *in vitro*, HOG.R5, IC<sub>50</sub> = 17.4 $\mu$ g/mL (73.1 $\mu$ mol/L), cytotoxic, 20 $\mu$ g/mL, inactive)<sup>[4688]</sup>. **Source:** DIE DA LAO *Litsea verticillata* (leaf and twig: yield = 0.00011%dw), ZHONG JIAN JIN JI ER *Caragana intermedia* (aerial parts). **Ref:** 4688, 4786.



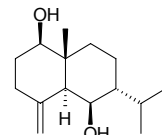
**6910 7-Epieudesm-4(15)-ene-1 $\alpha$ ,6 $\alpha$ -diol**

C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). White powder, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –35.3° (c = 0.05, CHCl<sub>3</sub>). **Pharm:** Anti-HIV-1 inactive (*in vitro*, HOG.R5)<sup>[4688]</sup>. **Source:** DIE DA LAO *Litsea verticillata* (leaf and twig: yield = 0.00015%dw). **Ref:** 4688.



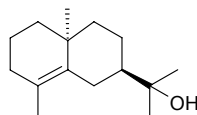
**6911 7-Epi-eudesm-4(15)-ene-1 $\beta$ ,6 $\beta$ -diol**

C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). White powder, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –16.0° (c = 0.03, CHCl<sub>3</sub>). **Pharm:** Anti-HIV-1 inactive (*in vitro*, HOG.R5). **Source:** DIE DA LAO *Litsea verticillata* (leaf and twig: yield = 0.00008%dw). **Ref:** 4688.



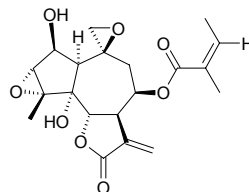
**6912 (–)-10-Epi- $\gamma$ -eudesmol**

C<sub>15</sub>H<sub>26</sub>O (222.37). **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 13.



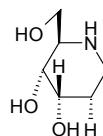
**6913 10-Epieupatoroxin**

[20071-54-9] C<sub>20</sub>H<sub>24</sub>O<sub>8</sub> (392.41). mp 230–232°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = –109° (c = 0.33, methanol). **Pharm:** Cytotoxic (KB, ED<sub>50</sub> = 2.6 $\mu$ g/mL). **Source:** YUAN YE ZE LAN *Eupatorium rotundifolium*. **Ref:** 661.



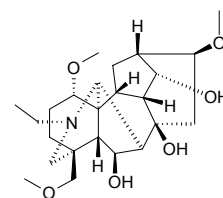
**6914 3-Epifagomine**

C<sub>6</sub>H<sub>13</sub>NO<sub>3</sub> (147.18). **Pharm:** Lactase inhibitor (isomaltose enzyme inhibitor)<sup>[2513]</sup>. **Source:** SANG BAI PI *Morus alba*. **Ref:** 2513.



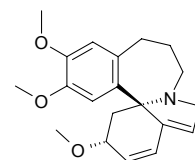
**6915 6-Epiforesticine**

C<sub>24</sub>H<sub>39</sub>NO<sub>6</sub> (437.58). White amorphous powder. **Source:** GUA YE WU TOU *Aconitum hemleyanum*. **Ref:** 2208.



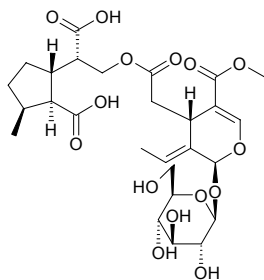
**6916 3-Epifortuneine**

C<sub>20</sub>H<sub>25</sub>NO<sub>3</sub> (327.43). **Source:** SAN JIAN SHAN *Cephalotaxus fortunei*. **Ref:** 2.

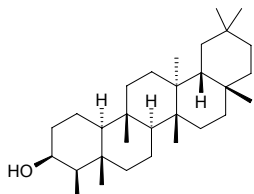


**6917 2''-Epiframeroside**

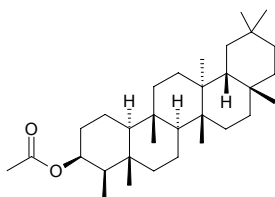
$C_{27}H_{38}O_{15}$  (602.59). Colorless amorphous powder,  $[\alpha]_D^{24} = -116^\circ$  ( $c = 0.22$ , MeOH). **Source:** A FU HAN DING XIANG *Syringa afghanica*. **Ref:** 2006.

**6918 Epifriedelanol**

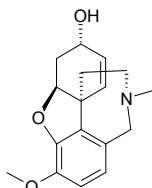
Friedelan-3 $\beta$ -ol; Friedelinol [16844-71-6]  $C_{30}H_{52}O$  (428.75). Colorless acicular crystals, mp 283.5~285.0°C; mp 263~265°C. **Pharm:** NFAT transcription factor inhibitor inactive ( $IC_{50} > 50\mu\text{mol/L}$ , positive control Cyclosporin A,  $IC_{50} = (0.31 \pm 0.01)\mu\text{mol/L}$ )<sup>[4511]</sup>. **Source:** CHAO XIAN LUO *Gymnaster koraiensis* (leaf), DONG FENG CAI *Doellingeria scaber* [Syn. *Aster scaber*], DUO SUI SHI KE YE *Lithocarpus polystachyus*, GUI JIAN YU *Euonymus alatus*, HUO XIANG *Agastache rugosus*, HUO YANG LE *Euphorbia antiquorum*, KU DI DAN *Elephantopus scaber*, KU HAO *Conyza blinii*, LIANG YE YAN DOU TENG *Milletia nitida*, LONG YAN YE *Euphorbia longan* [Syn. *Dimocarpus longan*], NAN ZHU ZI *Vaccinium bracteatum*, QIU FENG MU *Bischofia javanica* [Syn. *Bischofia trifoliata*], TIAO JING CAO *Euonymus japonicus*, XI YUAN TENG *Pericampylus glaucus*, XUAN FU HUA *Inula britannica*, YU DAI GEN *Pedilanthus tithymaloides*, ZI WAN *Aster tataricus*. **Ref:** 6, 505, 596, 660, 4511.

**6919 Epifriedelinol acetate**

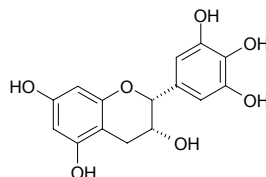
$C_{32}H_{54}O_2$  (470.79). mp 282~285°C. **Source:** QIU FENG MU *Bischofia javanica* [Syn. *Bischofia trifoliata*], YU DAI GEN *Pedilanthus tithymaloides*. **Ref:** 6.

**6920 2-Epigalanthamine**

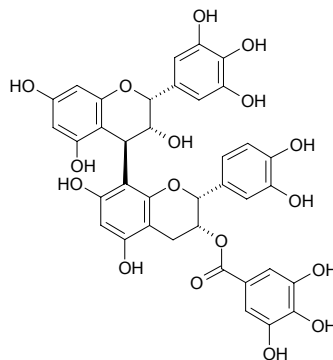
[1668-85-5]  $C_{17}H_{21}NO_3$  (287.36). mp 190°C. **Source:** SHI SUAN *Lycoris radiata* [Syn. *Amaryllis radiata*]. **Ref:** 6.

**6921 L-Epigallocatechin**

(-)-Epigallocatechin [970-74-1]  $C_{15}H_{14}O_7$  (306.27). mp 227°C. **Pharm:** Angiotensin I-converting enzyme inhibitor; platelet aggregation inhibitor (rbt, stronger than aspirin, weaker than persantin); antibacterial (*Bacillus typhosus*, *Bacillus paratyphosus*, *Staphylococcus hemolyticus flavus*, *Staphylococcus aureus*); cytotoxic (HeLa, *in vitro*); antispasmodic (rat); lipoxidase inhibitor (soy,  $IC_{50} = 10\sim 20\mu\text{mol/L}$ ); inhibits cancer cell invasion (MM1 cells, *in vitro*,  $10\mu\text{g/mL}$ , InRt = 27.8%)<sup>[4329]</sup>; antioxidant (DPPH free radical scavenger, for  $40\mu\text{mol/L}$  DPPH radical,  $SC_{50} = 2.5\mu\text{mol/L}$ )<sup>[4378]</sup>; bone marrow cell proliferation promotor ( $100\text{mg/mL}$ , stimulates formation of myeloid colonies)<sup>[5390]</sup>; inhibits degranulation and release of  $\beta$ -hexosaminidase (RBL-2H3 cells,  $100\mu\text{mol/L}$ , InRt = (12.6 $\pm$ 4.2)%), control Curcumin,  $100\mu\text{mol/L}$ , InRt = (62.6 $\pm$ 1.0)%, did not affect the enzyme activity of  $\beta$ -hexosaminidase)<sup>[4163]</sup>. **Source:** A LA BO JIAO JIN HE HUAN *Acacia nilotica*, AN MO LE *Phyllanthus emblica* (branch and leaf)<sup>[3094]</sup>, CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], KUN MING SHAN HAI TANG *Tripterygium hypoglaucum*, SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*] (stem), YANG MEI SHU PI *Myrica rubra* (bark; yield = 0.0066%)<sup>[4163]</sup>. **Ref:** 6, 612, 1564, 1565, 1566, 1567, 1568, 1569, 3094, 4163, 4329, 4378, 5375, 5390.

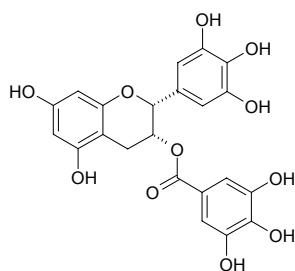
**6922 Epigallocatechin-(4 $\beta$ →8)-epicatechin-3-O-gallate ester**

$C_{37}H_{30}O_{17}$  (746.64). **Pharm:** Tanning agent. **Source:** CHA YE *Camellia sinensis* [Syn. *Thea sinensis*]. **Ref:** 658.

**6923 Epigallocatechin 3-gallate (EGCG)**

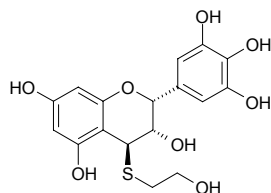
(-)-Epigallocatechin-3-O-gallate [989-51-5]  $C_{22}H_{18}O_{11}$  (458.38). mp 215~216°C;  $[\alpha]_D^{25} = -121.2^\circ$  ( $c = 0.99$ , acetone). **Pharm:** Special spicery of tea; inhibits cancer cell invasion (MM1 cells, *in vitro*,  $10\mu\text{g/mL}$ , InRt = 72.8%,  $5\mu\text{g/mL}$ , InRt = 59.7%)<sup>[4329]</sup>; bone marrow cell proliferation promotor ( $100\text{mg/mL}$ , stimulates formation of myeloid colonies)<sup>[5390]</sup>; 5 $\alpha$ -reductase inhibitor inactive ( $IC_{50} > 1\text{mmol/L}$ ; control Finasteride,  $IC_{50} = (0.38 \pm 0.06)\mu\text{mol/L}$ ;  $\alpha$ -Linolenic acid,  $IC_{50} = (160.3 \pm 24.6)\mu\text{mol/L}$ )<sup>[5398]</sup>;

inhibits cell proliferation of PBMC (activated by phytohemagglutinin (PHA),  $IC_{50} = 28.9 \mu\text{mol/L}$ , inhibitory mechanism may involve the blocking of IL-2 and IFN- $\gamma$  production)<sup>[4100]</sup>; TNF- $\alpha$  release inhibitor (BALB/3T3 cells, okadaic acid-stimulated, mean  $IC_{50} = 26 \mu\text{mol/L}$ )<sup>[4416]</sup>; anti-inflammatory (NF- $\kappa$ B pathway)<sup>[4415]</sup>; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; anti-inflammatory (modulator of cytokine network: leukocyte elastase MMP-2/9 inhibitor)<sup>[4416]</sup>; antioxidant (DPPH scavenger,  $IC_{50} = (1.13 \pm 0.08) \mu\text{mol/L}$ )<sup>[3848]</sup>; antioxidant (hydroxyl radical scavenger,  $IC_{50} = 0.43 \mu\text{mol/L}$ )<sup>[4499]</sup>; antioxidant (superoxide anion radical scavenger,  $IC_{50} = 0.53 \mu\text{mol/L}$ )<sup>[4499]</sup>. Source: CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], HEI ZI LI GUO JI SHENG *Scurrura atropurpurea*, MEI ZHOU JIN LV MEI *Hamamelis virginiana*, YOU GAN YE *Phyllanthus emblica* (branch and leaf), YANG PU TAO YE *Syzygium samarangense*, MAO GUO QI *Acer nikoense*, MAO YANG MEI *Myrica esculent*, YE WU TONG *Mallotus japonicus*. Ref: 6, 658, 1521, 3848, 4100, 4205, 4329, 4415, 4416, 4499, 5390, 5398.



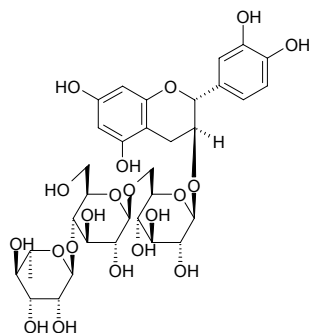
#### 6924 (-)-Epigallocatechin 4-(2-hydroxyethyl)thio ether

$C_{17}H_{18}O_8S$  (382.39). Source: XIAO GUO YE JIAO *Musa acuminata* (fruit). Ref: 3913.



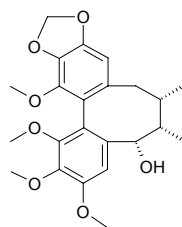
#### 6925 Epigeoside

Catechin-3-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside  $C_{33}H_{44}O_{20}$  (760.71). Colorless powder, mp 165–168°C,  $[\alpha]_D^{20} = -32.5^\circ$  ( $c = 1.05$ , methanol). Source: SI MAO TENG *Epigynum auritum*. Ref: 208.



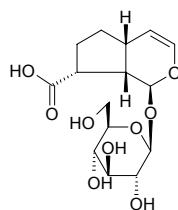
#### 6926 Epigomisin O

[73036-31-4]  $C_{23}H_{28}O_7$  (416.48). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.



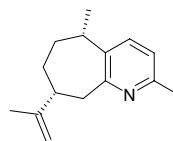
#### 6927 8-Epi-grandifloric acid

$C_{15}H_{22}O_9$  (346.34). Amorphous powder,  $[\alpha]_D^{19} = +55.4^\circ$  ( $c = 0.98$ , MeOH). Source: TAI GUO SHAN QIAN NIU *Thunbergia laurifolia*. Ref: 1968.



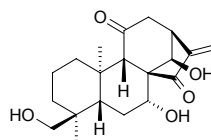
#### 6928 Epiguaiipyridine

Guaipyridine [41447-48-7]  $C_{15}H_{21}N$  (215.34). Source: GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*]. Ref: 2, 6, 660.



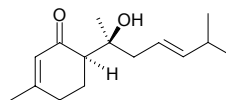
#### 6929 4-Epihenryne

Henryne A; Amethystoidin A  $C_{20}H_{28}O_5$  (348.44). mp 264–267°C,  $[\alpha]_D^{25} = +30.8^\circ$  ( $c = 4.5$ ,  $C_5H_5N$ ). Source: E XI XIANG CHA CAI *Isodon henryi*. Ref: 4067.



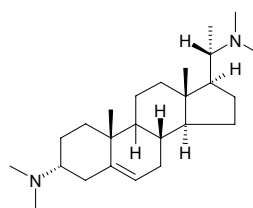
#### 6930 (-)-Epihernandulcin

$C_{15}H_{24}O_2$  (236.36). Source: TIAN SHE CAO *Lippia dulcis* (aerial parts). Ref: 4508.



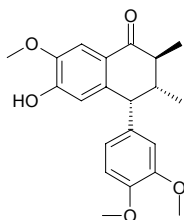
#### 6931 Epiheteroconessine

[In DNP]  $C_{25}H_{44}N_2$  (372.64). mp 148–150°C. Source: ZHI XIE MU PI *Holarrhena antidysenterica*. Ref: 6.

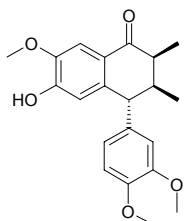


**6932 (-)-8,8'R-Epi-holostylone**

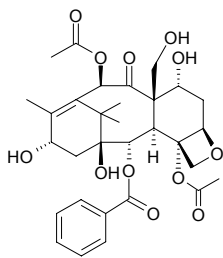
(7'R,8S,8'R)-8,8'-Dimethyl-4-hydroxy-3',4',5-trimethoxy-2,7'-cyclolignan-7-one C<sub>21</sub>H<sub>24</sub>O<sub>5</sub> (356.42). Amorphous yellow solid,  $[\alpha]_D^{25} = -171.6^\circ$  ( $c = 0.32$ , CHCl<sub>3</sub>). Source: *Holostylis reniformis* (root). Ref: 3784.

**6933 (-)-8,8'S-Epi-holostylone**

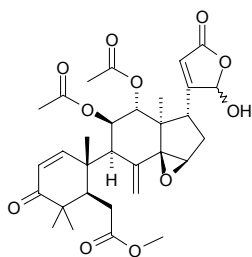
(7'R,8S,8'S)-8,8'-Dimethyl-4-hydroxy-3',4',5-trimethoxy-2,7'-cyclolignan-7-one C<sub>21</sub>H<sub>24</sub>O<sub>5</sub> (356.42). Yellow crystals, mp 169.0~172.0°C,  $[\alpha]_D^{25} = -40.6^\circ$  ( $c = 1.23$ , CHCl<sub>3</sub>). Source: *Holostylis reniformis* (root). Ref: 3784.

**6934 7-Epi-19-hydroxybaccatin III**

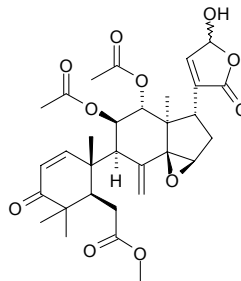
C<sub>31</sub>H<sub>38</sub>O<sub>12</sub> (602.64). Source: HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**6935 11-Epi-21-hydroxytoonacilide**

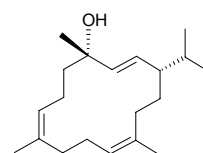
C<sub>31</sub>H<sub>38</sub>O<sub>11</sub> (586.64). White crystals, mp 124~126°C. Source: XIAO YE DU LIAN *Turraea parvifolia*. Ref: 2052.

**6936 11-Epi-23-hydroxytoonacilide**

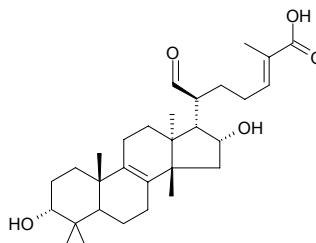
C<sub>31</sub>H<sub>38</sub>O<sub>11</sub> (586.64). White crystals, mp 139~142°C. Source: XIAO YE DU LIAN *Turraea parvifolia*. Ref: 2052.

**6937 4-Epiisocembrol**

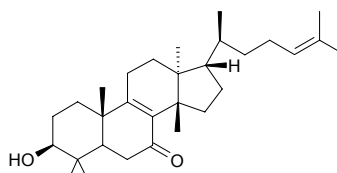
C<sub>20</sub>H<sub>34</sub>O (290.49). Source: HAI SONG ZI *Pinus koraiensis*. Ref: 6.

**6938 3-Epi-isomasticadienolalic acid**

C<sub>30</sub>H<sub>46</sub>O<sub>5</sub> (486.70).  $[\alpha]_D^{25} = +23.6^\circ$  ( $c = 0.5$ , CHCl<sub>3</sub>). Pharm: Anti-inflammatory (chronic inflammation model, in the form of eczema, provoked by repeated administration of TPA to the ears of mouse, swelling reduction = 39%, control Dexamethasone, swelling reduction = 85%; reduces leukocyte infiltration, measured as tissue peroxidase activity, InRt = 57%, Dexamethasone, InRt = 55%); toxic (rat peritoneal polymorphonuclear leukocytes, 100μmol/L). Source: ROU MAO XIAO RU XIANG *Schinus molle* (fruit). Ref: 5459.

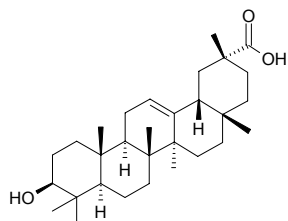
**6939 Epi-kansene**

Tirucalla-8,24-diene-3β-ol-7-one C<sub>30</sub>H<sub>48</sub>O<sub>2</sub> (440.72). Colorless gum,  $[\alpha]_D^{23} = -10.2^\circ$  ( $c = 0.43$ , MeOH). Pharm: Cell division arrester (cultured individual *Xenopus laevis* cells at blastular stage, 10μg/mL, >50% cleavage arrest). Source: GAN SUI *Euphorbia kansui* (dried root: yield = 0.00008%). Ref: 4690.

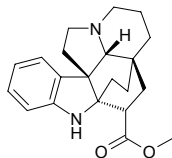


**6940 3-Epikatonin acid**

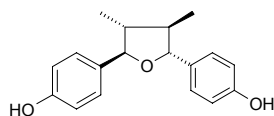
[76035-62-6]  $C_{30}H_{48}O_3$  (456.72). Colorless acicular crystals, mp 284~286°C (MeOH). **Pharm:** Spermicidal (mus, 0.125mg/mL). **Source:** LEI GONG TENG *Tripterygium wilfordii*. **Ref:** 2, 60, 670, 1572.

**6941 16-Epikopsinine**

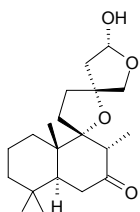
$C_{21}H_{26}N_2O_2$  (338.45). **Source:** HONG HUA RUI MU *Kopsia fruticosa* (leaf). **Ref:** 3830.

**6942 4-Epi-larreatricin**

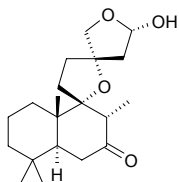
8'-Epi-larreatricin  $C_{18}H_{20}O_3$  (284.36). **Pharm:** Antioxidant (Takamatsu DCFH method, myelomonocytic HL-60 cells,  $IC_{50} = (18.0 \pm 2.5) \mu\text{g/mL}$ ; control NDGA,  $IC_{50} = (0.7 \pm 0.3) \mu\text{g/mL}$ , Vitamin C,  $IC_{50} = (1.9 \pm 0.7) \mu\text{g/mL}$ , Trolox,  $IC_{50} = (1.4 \pm 0.5) \mu\text{g/mL}$ )<sup>[3850]</sup>; cytotoxic (XTT assay, HL-60 cells,  $IC_{50} > 50.0 \mu\text{g/mL}$ ; control NDGA,  $IC_{50} = (2.6 \pm 0.2) \mu\text{g/mL}$ , Vitamin C,  $IC_{50} > 10.0 \mu\text{g/mL}$ , Trolox,  $IC_{50} > 10.0 \mu\text{g/mL}$ )<sup>[3850]</sup>. **Source:** SAN CHI LA RUI A *Larrea tridentata* (leaf). **Ref:** 1521, 3850.

**6943 15-Epileoheteronone B**

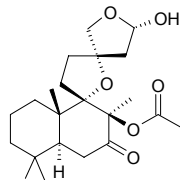
$C_{20}H_{32}O_4$  (336.48). White amorphous powder. **Source:** YI MU CAO *Leonurus heterophyllus* [Syn. *Leonurus artemisia*] (aerial parts). **Ref:** 4534.

**6944 15-Epileoheteronone D**

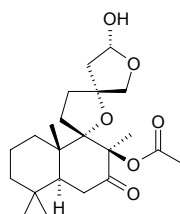
$C_{20}H_{32}O_4$  (336.48). White amorphous powder. **Source:** YI MU CAO *Leonurus heterophyllus* [Syn. *Leonurus artemisia*] (aerial parts). **Ref:** 4534.

**6945 15-Epileoheteronone E**

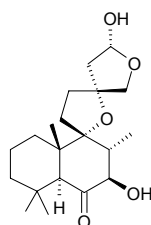
$C_{22}H_{34}O_6$  (394.51). White amorphous powder. **Source:** YI MU CAO *Leonurus heterophyllus* [Syn. *Leonurus artemisia*] (aerial parts). **Ref:** 4534.

**6946 15-Epileopersin B**

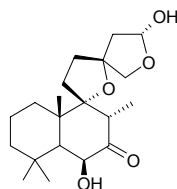
$C_{22}H_{34}O_6$  (394.51). White powder. **Source:** BO SI YI MU CAO *Leonurus persicus*, YI MU CAO *Leonurus heterophyllus* [Syn. *Leonurus artemisia*] (aerial parts). **Ref:** 2499, 4534.

**6947 15-Epileopersin C**

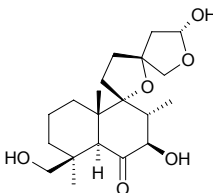
$C_{20}H_{32}O_5$  (352.48). Oil liquid. **Source:** YI MU CAO *Leonurus heterophyllus* [Syn. *Leonurus artemisia*] (aerial parts), BO SI YI MU CAO *Leonurus persicus*. **Ref:** 4534, 2499.

**6948 15-Epi-leopersin J**

$C_{20}H_{32}O_5$  (352.48). Oil liquid. **Source:** BO SI YI MU CAO *Leonurus persicus*. **Ref:** 2499.

**6949 15-Epi-leopersin O**

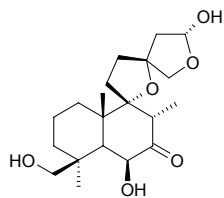
$C_{20}H_{32}O_6$  (368.47). Oil liquid. **Source:** BO SI YI MU CAO *Leonurus persicus*. **Ref:** 2499.



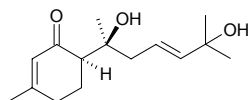


**6950 15-Epi-leopersin Q**

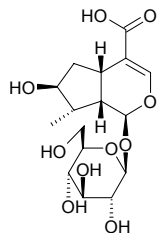
$C_{20}H_{32}O_6$  (368.47). Oil liquid. Source: BO SI YI MU CAO *Leonurus persicus*. Ref: 2499.

**6951 Epilippidulcine A**

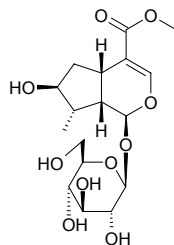
$C_{15}H_{24}O_3$  (252.36). Colorless oil,  $[\alpha]_D^{31} = -118.4^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). Source: TIAN SHE CAO *Lippia dulcis* (aerial parts). Ref: 4508.

**6952 8-Epiloganic acid**

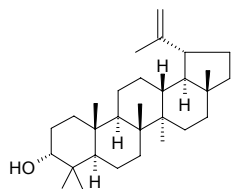
$C_{16}H_{24}O_{10}$  (376.36). Source: FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts), GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], ROU CONG RONG *Cistanche deserticola*. Ref: 2, 502, 628, 3954.

**6953 8-Epiloganin**

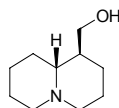
$C_{17}H_{26}O_{10}$  (390.39). Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0003%dw)<sup>[4723]</sup>, TIAN SHE CAO *Lippia dulcis* (aerial parts). Ref: 4508, 4723.

**6954 3-Epilupeol**

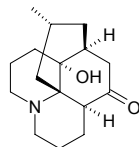
$C_{30}H_{50}O$  (426.73). Pharm: Cytotoxic (hmn fibrosarcoma cells HT1080,  $ED_{50} > 100\mu g/mL$ ; control Adriamycin,  $ED_{50} = 0.1\mu g/mL$ )<sup>[4437]</sup>. Source: LIE WEI LIE LAN *Bursera graveolens* (stem), RI BEN HUANG BAI *Phellodendron japonicum* (leaf). Ref: 4437, 4502.

**6955 Epilupinine**

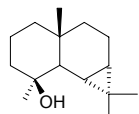
Isolupinine [486-71-5]  $C_{10}H_{19}NO$  (169.27). mp 77~78°C. Source: *Lupinus varius*. Ref: 1521.

**6956 12-Epilycodoline**

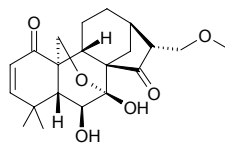
$C_{16}H_{25}NO_2$  (263.38).  $[\alpha]_D^{25} = -44^\circ$  (MeOH). Source: DONG BEI SHI SHAN *Huperzia myoschiana*. Ref: 5412.

**6957 (-)-4-Epi-maaliol**

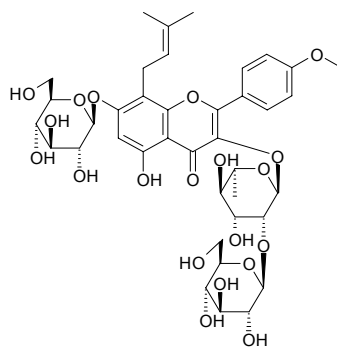
$C_{15}H_{26}O$  (222.37). Colorless oil. Source: TIE JIAO JUE YU TAI *Plagiochila asplenioides* (essential oil). Ref: 5257.

**6958 Epi-maoecrystal P**

$C_{21}H_{28}O_6$  (376.45). mp 222~224°C,  $[\alpha]_D^{25} = -14.2^\circ$  ( $c = 0.62$ ,  $CHCl_3$ ). Source: MAO E XIANG CHA CAI *Rabdosia eriocalyx*. Ref: 4067.

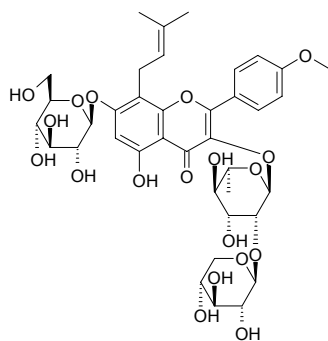
**6959 Epimedinin A**

4'-Methoxy-5-hydroxy-8-3,3-dimethylallyl-flavone-3-glucosyl-(1→2)rhamnose-7-glucoside [110623-72-8]  $C_{39}H_{50}O_{20}$  (838.82). Source: CHAO XIAN YIN YANG HUO *Epimedium koreanum* (aerial parts: content = 0.345%<sup>[5508]</sup>), YIN YANG HUO *Epimedium brevicornum*. Ref: 2,660, 1521, 5508.

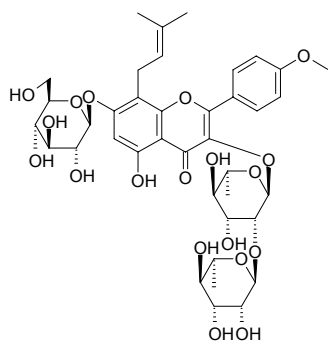


**6960 Epimedinin B**

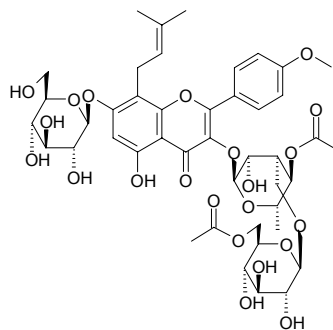
4'-Methoxy-5-hydroxy-8-3,3-dimethyl allylflavone-3-xyloxy-(1→2)rhamnoside-7-glucoside [110623-73-9]  $C_{38}H_{48}O_{19}$  (808.79). **Source:** CHAO XIAN YIN YANG HUO *Epimedium koreanum* (aerial parts: content scope = 0.39%~1.24%, mean content = 0.82%<sup>[5508]</sup>), CHUAN E YIN YANG HUO *Epimedium fargesii*, JIAN YE YIN YANG HUO *Epimedium sagittatum* (aerial parts: mean content of 3 origins = 0.552%<sup>[5508]</sup>), ROU MAO YIN YANG HUO *Epimedium pubescens* (aerial parts: content = 0.739%<sup>[5508]</sup>) WU SHAN YIN YANG HUO *Epimedium wushanense* (aerial parts: mean content of 2 origins = 0.349%<sup>[5508]</sup>), YIN YANG HUO *Epimedium brevicornum* (aerial parts: mean content of 2 origins = 1.09%<sup>[5508]</sup>), *Epimedium* spp. **Ref:** 2, 567, 660, 1521, 5508.

**6961 Epimedinin C**

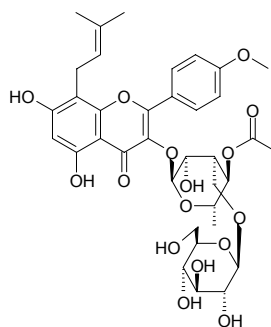
4'-Methoxy-5-hydroxy-8-3,3-dimethyl allylflavone-3-rhamnosyl-(1→2)rhamnoside-7-glucoside [110642-44-9]  $C_{39}H_{50}O_{19}$  (822.82). Yellow powder, mp 240~245°C, soluble in methanol. **Pharm:** Immunoenhancer (enhances multiplication of lymphocyte, recovers to produce interleukin-2). **Source:** CHAO XIAN YIN YANG HUO *Epimedium koreanum* (aerial parts: content scope = 0.19%~0.89%, mean content = 0.61%<sup>[5508]</sup>), CHUAN DIAN YIN YANG HUO *Epimedium davidii*, CHUAN E YIN YANG HUO *Epimedium fargesii*, CU MAO YIN YANG HUO *Epimedium acuminatum* (aerial parts: content = 2.18%<sup>[5508]</sup>), JIAN YE YIN YANG HUO *Epimedium sagittatum* (aerial parts: content scope = 0.39%~1.60%, mean content = 1.09%<sup>[5508]</sup>), QIAN LING YIN YANG HUO *Epimedium leptorrhizum* (aerial parts: content = 1.56%<sup>[5508]</sup>), ROU MAO YIN YANG HUO *Epimedium pubescens* (aerial parts: content scope = 1.14%~1.36%, mean content = 1.25%<sup>[5508]</sup>), TIAN PING SHAN YIN YANG HUO *Epimedium myrianthum* (aerial parts: content = 2.22%<sup>[5508]</sup>), WU SHAN YIN YANG HUO *Epimedium wushanense* (aerial parts: content scope = 1.63%~3.11%, mean content = 2.37%<sup>[5508]</sup>), YIN YANG HUO *Epimedium brevicornum* (aerial parts: mean content of 2 origins = 1.141%<sup>[5508]</sup>). **Ref:** 2, 114, 540, 567, 623, 624, 660, 1521, 1784, 5508.

**6962 Epimedokoreanoside I**

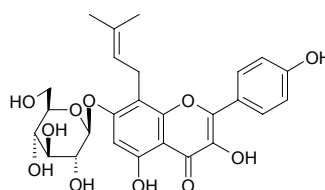
[130756-11-5]  $C_{44}H_{56}O_{22}$  (936.92). **Source:** YIN YANG HUO *Epimedium brevicornum*. **Ref:** 2.

**6963 Epimedokoreanoside II**

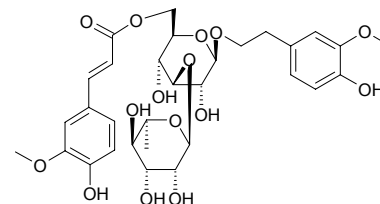
[130756-12-6]  $C_{36}H_{44}O_{16}$  (732.74). **Source:** YIN YANG HUO *Epimedium brevicornum*. **Ref:** 2.

**6964 Epimedeside C**

[53394-98-4]  $C_{26}H_{28}O_{11}$  (516.51). **Source:** YIN YANG HUO *Epimedium brevicornum*. **Ref:** 2, 112.

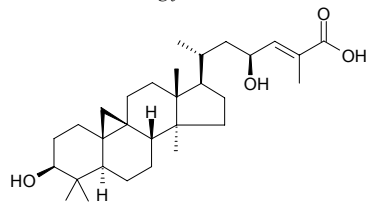
**6965 Epimeredinoside A**

2-(3-Methoxy-4-hydroxy) phenyl ethanol 1-O- $\alpha$ -L-[(1→3)-rhamnopyranosyl-6-O-feruloyl] glucoside  $C_{31}H_{40}O_{15}$  (652.66). Yellowish amorphous powder, mp 140~141°C (MeOH). **Source:** GUANG FANG FENG *Anisomeles indica* [Syn. *Epimeredi indica*] (whole herb). **Ref:** 4592.

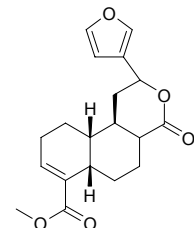


**6966 23-Epimeric 3 $\beta$ ,23-dihydroxycycloart-24-en-26-oic acid**

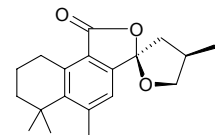
C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). Shining crystals (CHCl<sub>3</sub>-MeOH), mp 240~242°C. Source: MANG GUO *Mangifera indica*. Ref: 1868.

**6967 12-Epi-methyl-barbascoate**

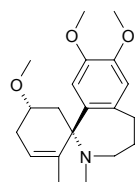
C<sub>19</sub>H<sub>22</sub>O<sub>5</sub> (330.38). Source: WU LU BA DOU *Croton urucurana*. Ref: 4552.

**6968 Epi-6-methylcryptoacetalide**

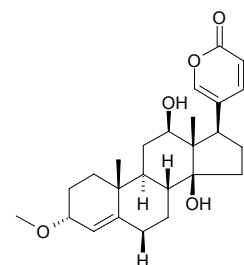
C<sub>19</sub>H<sub>24</sub>O<sub>3</sub> (300.40). Source: AI JI SHU WEI CAO *Salvia aegyptiaca*. Ref: 1919.

**6969 3-Epimethylschelhammericine B**

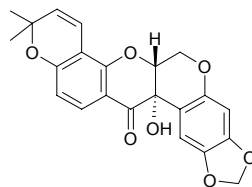
C<sub>20</sub>H<sub>27</sub>NO<sub>3</sub> (329.44). Source: SAN JIAN SHAN *Cephalotaxus fortunei*. Ref: 2, 27.

**6970 3-Epi-O-Methyl-scilliphaeosidin**

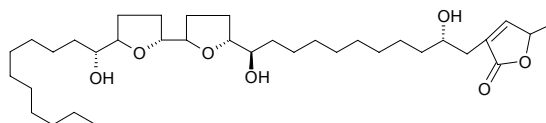
C<sub>25</sub>H<sub>34</sub>O<sub>5</sub> (414.55). Amorphous powder. [ $\alpha$ ]<sub>D</sub><sup>28</sup> = +49.9° (c = 0.66, MeOH). Source: HAI CONG *Urginea maritima* (bulb). Ref: 3513.

**6971 12a-Epimillettosin**

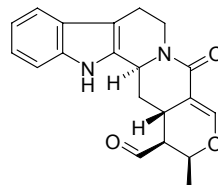
C<sub>22</sub>H<sub>18</sub>O<sub>7</sub> (394.38). Pharm: Antimalarial (antiplasmodial, chloroquine-resistant W2 strain of *Plasmodium falciparum*, IC<sub>50</sub> = 22.2 μmol/L, control Chloroquine, IC<sub>50</sub> = 0.094 μmol/L, control Quinine, IC<sub>50</sub> = 0.209 μmol/L; chloroquine-sensitive D6 strain of *Plasmodium falciparum*, IC<sub>50</sub> = 19.4 μmol/L, control Chloroquine, IC<sub>50</sub> = 0.009 μmol/L, control Quinine, IC<sub>50</sub> = 0.044 μmol/L). Source: *Millettia usaramensis* ssp. *usaramensis*. Ref: 3454.

**6972 22-Epimolvizarin**

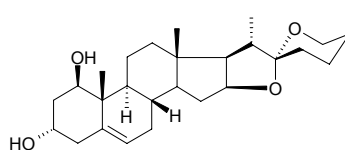
C<sub>35</sub>H<sub>62</sub>O<sub>7</sub> (594.88). White solid, mp 104~105°C, [ $\alpha$ ]<sub>D</sub> = +19.3° (c = 0.064, MeOH). Source: FAN LI ZHI *Annona squamosa*. Ref: 886.

**6973 17-Epinaucleidinal**

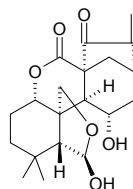
[77513-46-3] C<sub>20</sub>H<sub>20</sub>N<sub>2</sub>O<sub>3</sub> (336.39). [ $\alpha$ ]<sub>D</sub> = +97.7 (c = 0.085, EtOH). Pharm: Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*). Source: KUAN YE WU TAN *Nauclea latifolia*. Ref: 2178.

**6974 3-Epineoruscogenin**

Spirost-5,25(27)-dien-1 $\beta$ ,3 $\gamma$ -diol C<sub>27</sub>H<sub>40</sub>O<sub>4</sub> (428.62). Colorless prisms, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -61.7° (c = 1.67, CHCl<sub>3</sub>). Source: KAI KOU JIAN *Tupistra chinensis* (underground part). Ref: 4676.

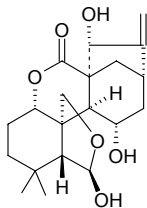
**6975 Epinodosin**

C<sub>20</sub>H<sub>26</sub>O<sub>6</sub> (362.43). mp 245~248°C, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = -200° (c = 0.027, C<sub>5</sub>H<sub>5</sub>N). Source: LU SHAN XIANG CHA CAI *Isodon rubescens* var. *lushanensis* (leaf), MAO YE XIANG CHA CAI *Isodon japonica* [Syn. *Rabdosia japonica*]. Ref: 4067, 4067, 4353.

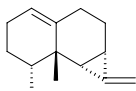


**6976 Epinodosinol**

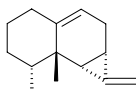
$C_{20}H_{28}O_6$  (364.44). mp 236–238°C. Source: MAO YE XIANG CHA CAI *Isodon japonica* [Syn. *Rabdosia japonica*]. Ref: 4067.

**6977 4-Epi-11-nor-aristola-1(10),11-diene**

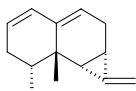
$C_{14}H_{20}$  (188.32). Colorless oil. Source: RI BEN BIAN TAI *Bazzania japonica*. Ref: 3399.

**6978 4-Epi-11-nor-aristola-9,11-diene**

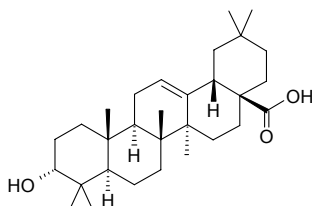
$C_{14}H_{20}$  (188.32). Colorless oil. Source: RI BEN BIAN TAI *Bazzania japonica*. Ref: 3399.

**6979 4-Epi-11-nor-aristola-1,9,11-triene**

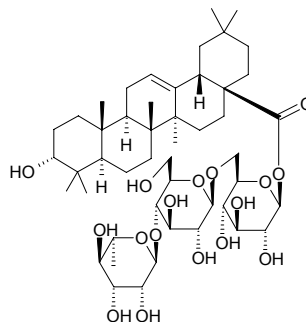
$C_{14}H_{18}$  (186.30). Colorless oil. Source: RI BEN BIAN TAI *Bazzania japonica*. Ref: 3399.

**6980 3-Epioleanolic acid**

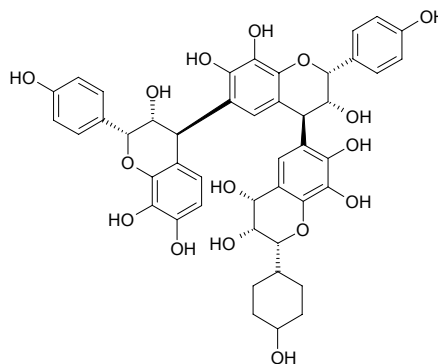
[25499-90-5]  $C_{30}H_{48}O_3$  (456.72). Pharm: Gastroprotective (30 mg/kg, Gp = (88.8±5.1)%; control Carbenoxolone, Gp = (88.4±5.4)%,  $p < 0.05$ )<sup>[5461]</sup>. Source: SHOU LIAN LIANG YI MU *Amphipterygium adstringens* (stem cortex), SU HE XIANG *Liquidambar orientalis*. Ref: 6, 5461.

**6981 3-Epi-oleanolic acid-28-O-α-L-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→6)-β-D-glucopyranoside**

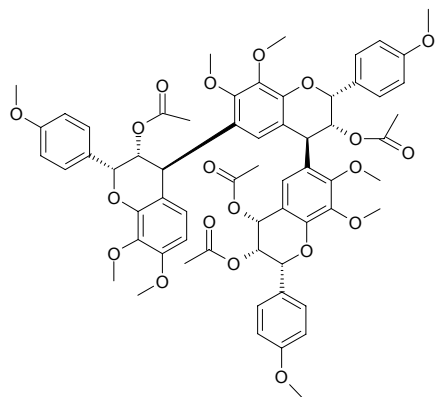
3β-Hydroxyolean-12-en-28-oic acid *O*-α-*L*-rhamnopyranosyl-(1→4)-*O*-β-*D*-glucopyranosyl-(1→6)-β-*D*-glucopyranosyl ester  $C_{48}H_{78}O_{17}$  (927.15). White powder, mp 207–209°C,  $[\alpha]_D^{20} = -15^\circ$  ( $c = 0.4$ , methanol). Source: DONG BEI CI REN SHEN *Oplopanax elatus*, SAN YE MU TONG *Akebia trifoliata* (stem). Ref: 370, 660, 4545.

**6982 Epioritin-(4β→6)-epioritin-(4β→6)-epioritin-4α-ol**

$C_{45}H_{44}O_{16}$  (840.84). Source: *Acacia galpinii* (heartwood), *Acacia caffra* (heartwood). Ref: 3753.

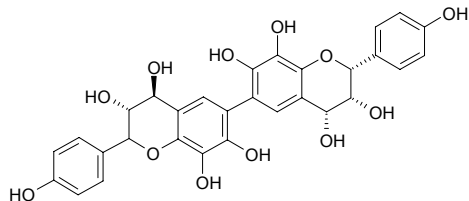
**6983 Epioritin-(4β→6)-epioritin-(4β→6)-epioritin-4α-ol nona-O-methyl-ether tetra-acetate**

$C_{62}H_{64}O_{20}$  (1129.19). Source: *Acacia galpinii* (heartwood). Ref: 3753.

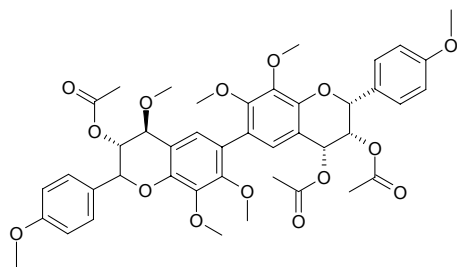


**6984 Epioritin-4 $\alpha$ -ol-(6 $\rightarrow$ 6)-epioritin-4 $\beta$ -ol**

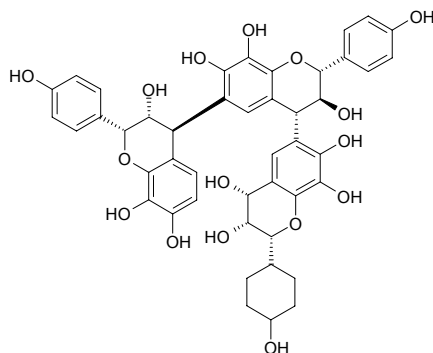
C<sub>30</sub>H<sub>26</sub>O<sub>12</sub> (578.53). Source: *Acacia galpinii* (heartwood), *Acacia caffra* (heartwood). Ref: 3753.

**6985 Epioritin-4 $\alpha$ -ol-(6 $\rightarrow$ 6)-epioritin-4 $\beta$ -ol hepta-*O*-methylether triacetate**

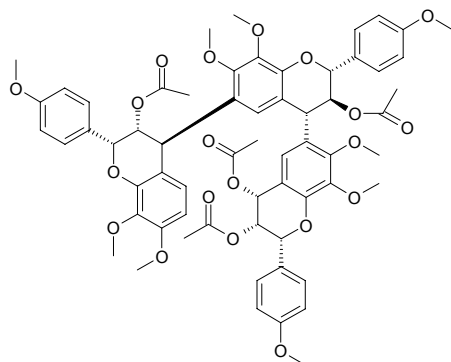
C<sub>43</sub>H<sub>46</sub>O<sub>15</sub> (802.84). Source: *Acacia galpinii* (heartwood). Ref: 3753.

**6986 Epioritin-(4 $\beta$ →6)-oritin-(4 $\alpha$ →6)-epioritin-4 $\alpha$ -ol**

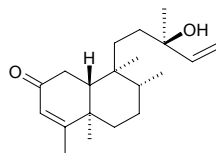
C<sub>43</sub>H<sub>44</sub>O<sub>16</sub> (840.84). Source: *Acacia galpinii* (heartwood), *Acacia caffra* (heartwood). Ref: 3753.

**6987 Epioritin-(4 $\beta$ →6)-oritin-(4 $\alpha$ →6)-epioritin-4 $\alpha$ -ol nona-*O*-methyl-ether tetra-acetate**

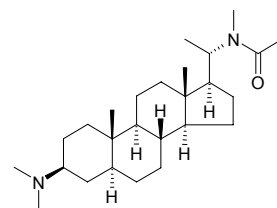
C<sub>62</sub>H<sub>64</sub>O<sub>20</sub> (1129.19). Source: *Acacia galpinii* (heartwood). Ref: 3753.

**6988 13-Epi-2-oxo-kolavelool**

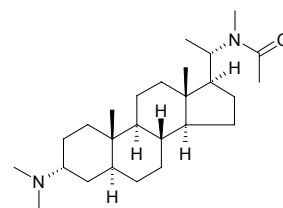
C<sub>20</sub>H<sub>32</sub>O<sub>2</sub> (304.48). Colorless amorphous solid, mp 158–159°C (hexane), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -25.0° (c = 0.10, CHCl<sub>3</sub>). Source: BA XI MA DOU LING *Aristolochia chamissonis*. Ref: 1904.

**6989 Epipachysamine A**

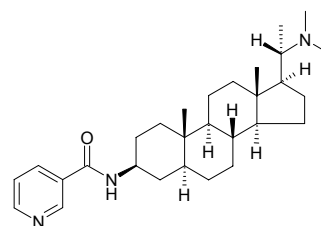
[2309-42-4] C<sub>26</sub>H<sub>46</sub>N<sub>2</sub>O (402.67). mp 203–205°C. Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 6.

**6990 Epipachysamine AII**

C<sub>26</sub>H<sub>46</sub>N<sub>2</sub>O (402.67). Colorless flake crystals (dichloromethane–acetone), mp 201–203°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -17° (c = 1.24). Pharm: Antiulcerative (inhibits secretion hydrochloric acid in gastric juice); LD<sub>50</sub> (mus, ip) = 47.2mg/kg, CD<sub>50</sub> (mus, ip) = 32.5mg/kg. Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 941, 1141, 1197, 1200.

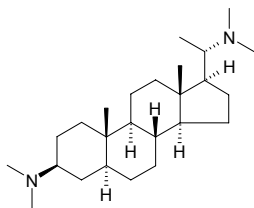
**6991 Epipachysamine B**

[2552-06-9] C<sub>29</sub>H<sub>45</sub>N<sub>3</sub>O (451.70). mp 260–262°C. Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 6.

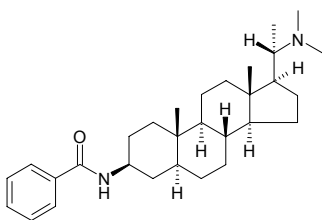


**6992 Epipachysamine C**

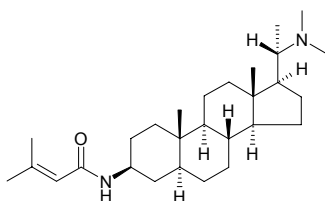
[4215-74-1] C<sub>25</sub>H<sub>46</sub>N<sub>2</sub> (374.66). Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 6.

**6993 Epipachysamine D**

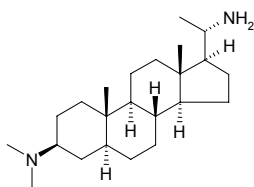
[3697-77-6] C<sub>30</sub>H<sub>46</sub>N<sub>2</sub>O (450.71). mp 245–248°C. Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 6.

**6994 Epipachysamine E**

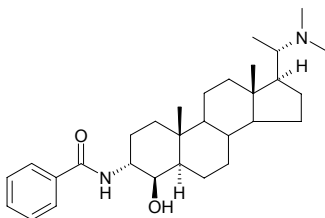
[3697-79-8] C<sub>28</sub>H<sub>48</sub>N<sub>2</sub>O (428.71). mp 210–212°C. Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 6.

**6995 Epipachysamine F**

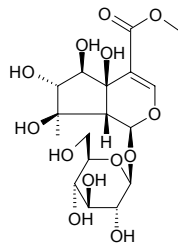
[5141-99-1] C<sub>23</sub>H<sub>42</sub>N<sub>2</sub> (346.60). mp 250–253°C. Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 6.

**6996 Epipachysandrine A**

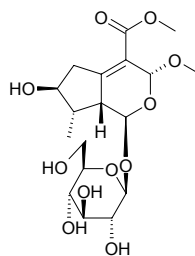
C<sub>30</sub>H<sub>46</sub>N<sub>2</sub>O<sub>2</sub> (466.71). mp > 295°C. Source: XUE SHAN LIN *Pachysandra terminalis*. Ref: 6.

**6997 7-Epiphlomiol**

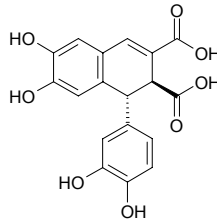
[139757-58-7] C<sub>17</sub>H<sub>26</sub>O<sub>13</sub> (438.39). Source: MENG GU CAO SU *Phlomis mongolica*. Ref: 561.

**6998 3-Epiphlomurin**

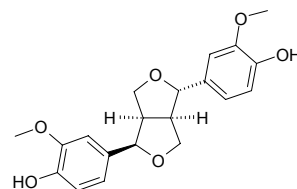
C<sub>18</sub>H<sub>28</sub>O<sub>11</sub> (420.42). [α]<sub>D</sub><sup>21</sup> = –22.2° (c = 0.7, MeOH). Source: JIN HUANG CAO SU *Phlomis aurea* (leaf) Ref: 5093.

**6999 Epiphyllic acid**

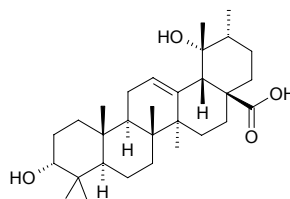
C<sub>18</sub>H<sub>14</sub>O<sub>8</sub> (358.31). Source: QIU YUAN YE TAI *Jamesoniella autumnalis*, XI TAI *Pellia epiphylla*. Ref: 1521, 4549.

**7000 (+)-Epipinoresinol**

[24404-50-5] C<sub>20</sub>H<sub>22</sub>O<sub>6</sub> (358.39). Source: DU ZHONG *Eucommia ulmoides*. Ref: 2.

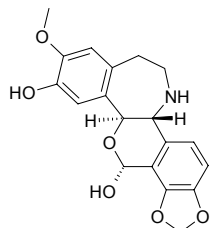
**7001 3-Epipomolic acid**

C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). Source: DUO SUI PO BU MU *Cordia multispicata* (leaf). Ref: 4106.

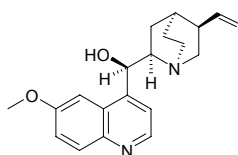


**7002 Epiorphoxyline**

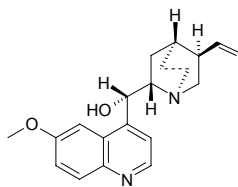
$C_{19}H_{19}NO_6$  (357.37). Source: HUO XIANG YE LV RONG HAO *Meconopsis betonicifolia*, *Papaver* spp. Ref: 1521.

**7003 Epiquinidine**

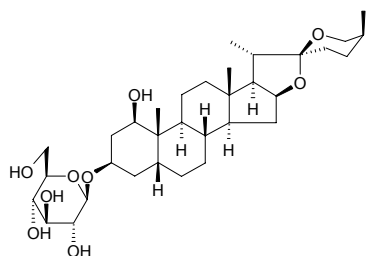
[572-59-8]  $C_{20}H_{24}N_2O_2$  (324.43). mp 113°C. Source: JIN JI LE *Cinchona ledgeriana*. Ref: 6.

**7004 Epiquinine**

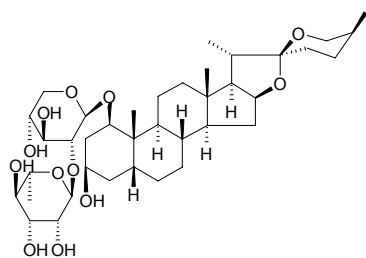
[572-60-1]  $C_{20}H_{24}N_2O_2$  (324.43). Source: JIN JI LE *Cinchona ledgeriana*. Ref: 6.

**7005 22-Epirhodeasapogenin-3-O-β-D-glucopyranoside**

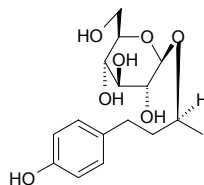
$C_{33}H_{54}O_9$  (594.79). Source: WAN NIAN QING GEN *Rohdea japonica* [Syn. *Orontium japonicum*]. Ref: 660.

**7006 22-Epirhodeasapogenin-1-O-α-L-rhamnopyranosyl(1→2)-β-D-xylopyranoside**

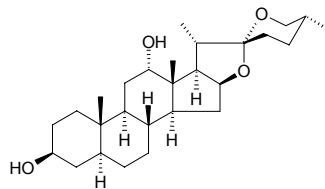
$C_{38}H_{62}O_{12}$  (710.91). Source: WAN NIAN QING GEN *Rohdea japonica* [Syn. *Orontium japonicum*]. Ref: 660.

**7007 Epirhododendrin**

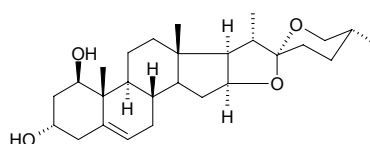
$C_{16}H_{24}O_7$  (328.37). Source: MAO GUO QI *Acer nikoense* (stem cortex). Ref: 4304.

**7008 12-Epirockogenin**

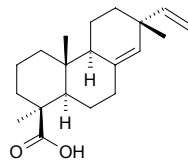
[545-77-7]  $C_{27}H_{44}O_4$  (432.65). mp 218°C. Source: FAN MA *Agave americana*, JIAN MA *Agave sisalana*, TAN XIANG *Santalum album*. Ref: 6, 10.

**7009 3-Epiruscogenin**

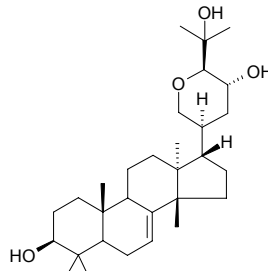
(2*R*)-Spirost-5-en-1β,3α-diol  $C_{27}H_{42}O_4$  (430.63). White amorphous powder,  $[\alpha]_D^{24} = -63.8^\circ$  ( $c = 1.28$ ,  $CHCl_3$ ). Source: KAI KOU JIAN *Tupistra chinensis* (underground part). Ref: 4676.

**7010 4-Epi-sandaracopimaric acid**

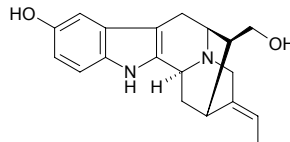
$C_{20}H_{30}O_2$  (302.46). White amorphous powder. Source: JIA DI FENG PI *Illicium jiadifengpi* (bark). Ref: 4560.

**7011 3-Episapeline A**

$C_{30}H_{50}O_4$  (474.73). Source: *Eurycoma* sp. Ref: 4556.

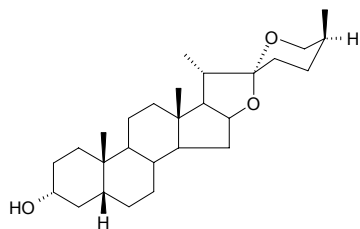
**7012 16-Episarpagine**

$C_{19}H_{22}N_2O_2$  (310.40). Acicular crystals, mp 300°C (dec),  $[\alpha]_D^{30} = +34.7^\circ$  ( $c = 0.085$ , ethanol). Source: DIAN JI GU CHANG SHAN *Alstonia yunnanensis*. Ref: 42.

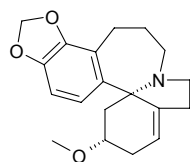


**7013 Epi-sarsasapogenin**

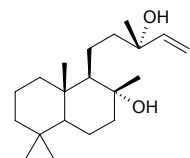
$C_{27}H_{44}O_3$  (416.65). mp 204~206°C,  $[\alpha]_D^{29} = -49.6^\circ$  ( $c = 0.31$ ,  $CHCl_3$ ). Source: CHA RUI SHU YU *Dioscorea collettii*. Ref: 10, 24, 660.

**7014 3-Epischelhammericine**

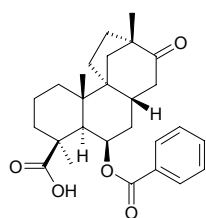
[24204-36-2]  $C_{19}H_{23}NO_3$  (313.40). Source: HAI NAN CU FEI *Cephalotaxus hainanensis* [Syn. *Cephalotaxus manii*], SAN JIAN SHAN *Cephalotaxus fortunei*. Ref: 2, 27, 660.

**7015 13-Epi-sclareol**

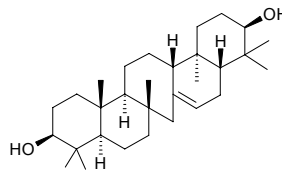
$C_{20}H_{36}O_2$  (308.51). Pharm: Antibacterial (gram-positive bacteria, showing a bactericidal and lytic action, inhibits oxygen consumption of intact gram-positive cells, but not with gram-negative bacteria, NADH oxidase inhibitor, cytochrome C reductase inhibitor). Source: *Pseudognaphalium cheiranthifolium*, *Pseudognaphalium heterotrichum* Ref: 4075.

**7016 4-Episcopadulcic acid B**

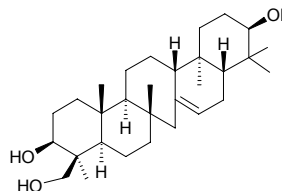
$C_{27}H_{34}O_5$  (438.57). Gum,  $[\alpha]_D^{25} = +3.0^\circ$  ( $c = 0.50$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro*, SCL,  $ED_{50} = 37\mu\text{mol/L}$ ; SCL-6,  $ED_{50} = 136.9\mu\text{mol/L}$ ; SCL-376,  $ED_{50} = 59.3\mu\text{mol/L}$ ; SCL-9,  $ED_{50} = 48.3\mu\text{mol/L}$ ; Kato3,  $ED_{50} = 124.3\mu\text{mol/L}$ ; NuGc-4,  $ED_{50} = 109.9\mu\text{mol/L}$ ; control Vinblastine Sulfate: SCL,  $ED_{50} = 5.9\mu\text{mol/L}$ ; SCL-6,  $ED_{50} = 6.1\mu\text{mol/L}$ ; SCL-376,  $ED_{50} = 5.3\mu\text{mol/L}$ ; SCL-9,  $ED_{50} = 5.3\mu\text{mol/L}$ ; Kato3,  $ED_{50} = 6.1\mu\text{mol/L}$ ; NUGC-4,  $ED_{50} = 5.3\mu\text{mol/L}$ ). Source: YE GAN CAO *Scoparia dulcis* (aerial parts: 0.00185%dw). Ref: 4703.

**7017 21-Episerratenediol**

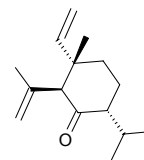
Serratenediol [1449-06-5]  $C_{30}H_{50}O_2$  (442.73). Colorless powder, mp 303~308°C, mp 303-304°C (MeOH),  $[\alpha]_D^{26} = -19.6^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). Source: PU DI WU GONG *Lycopodium cernuum* (root, stem and leaf: yield = 0.0027%dw)<sup>[4633]</sup>, QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*]. Ref: 6, 109, 4633.

**7018 21-Episerratriol**

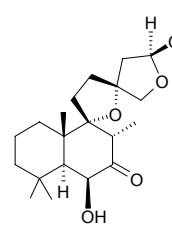
$C_{30}H_{50}O_3$  (458.73). mp 330~333°C. Source: PU DI WU GONG *Lycopodium cernuum*. Ref: 6.

**7019 Epishybunone**

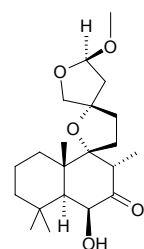
[39020-72-9]  $C_{15}H_{24}O$  (220.36). Source: BAI CHANG *Acorus calamus*. Ref: 6.

**7020 15-Epi-sibiricinone D**

$C_{21}H_{34}O_5$  (366.5). Source: XI YE YI MU CAO *Leonurus sibiricus* (aerial parts). Ref: 4744.

**7021 15-Epi-sibiricinone E**

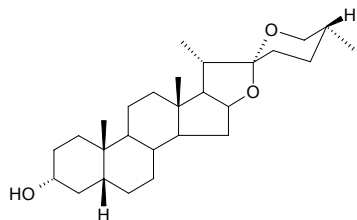
$C_{21}H_{34}O_5$  (366.5). Source: XI YE YI MU CAO *Leonurus sibiricus* (aerial parts). Ref: 4744.



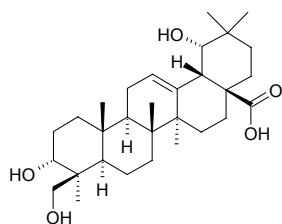


**7022 Epismilagenin**

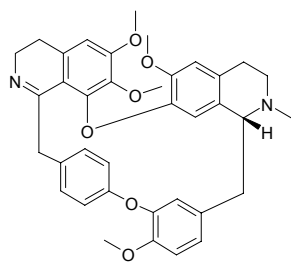
$C_{27}H_{44}O_3$  (416.65). **Source:** QIAN JIN TENG *Stephania japonica*. **Ref:** 10, 24.

**7023 3-epi-spathodic acid**

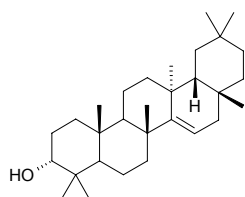
$C_{30}H_{48}O_5$  (488.71). **Pharm:** Quinone reductase inducer inactive (mouse Hepa lclc7 hepatoma cells,  $CD > 10\mu\text{g/mL}$ ). **Source:** *Coussarea brevicaulis*. **Ref:** 3434.

**7024 Epistephanine**

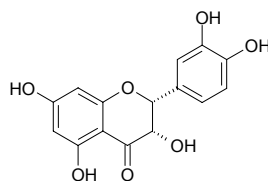
[549-08-6]  $C_{37}H_{38}N_2O_6$  (606.73). mp 202°C. **Pharm:** Adrenergic antagonist (blocks adrenergic nerve markedly). **Source:** BI XIE *Dioscorea hypoglauca* [Syn. *Dioscorea collettii* var. *hypoglauca*], CHA RUI SHU YU *Dioscorea collettii*, CHUAN LONG SHU YU *Dioscorea nipponica*, DUN YE SHU YU *Dioscorea zingiberensis*, FU ZHOU SHU YU *Dioscorea futschauensis*, MU FANG JI *Cocculus trilobus* [Syn. *Cocculus sarmentosus*], QIAN JIN TENG *Stephania japonica*, RU LAN *Stephania hernandifolia*, SHU KUI YE SHU YU *Dioscorea althaeoides*. **Ref:** 6, 658, 660.

**7025 Epitaraxerol**

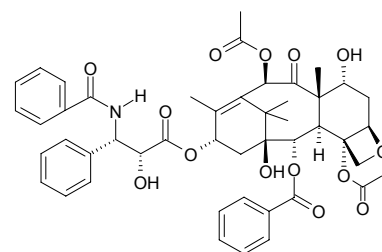
$C_{30}H_{50}O$  (426.73). **Pharm:** Cytotoxic inactive (A2780 ovarian cancer cell line,  $IC_{50} = 18.8\text{mg/mL}$ )<sup>[5379]</sup>. **Source:** SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*] (berry), MU SHU DI SHANG BU FEN *Manihot esculenta*. **Ref:** 4714, 5379.

**7026 Epitaxifolin**

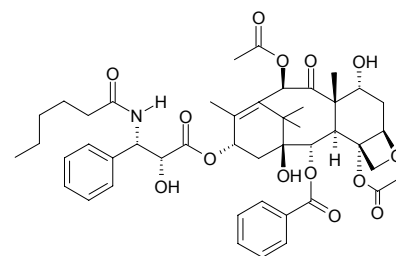
$C_{15}H_{12}O_7$  (304.26). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** PU<sup>(2)</sup> TAO *Vitis vinifera* (cell culture). **Ref:** 5038.

**7027 7-Epitaxol**

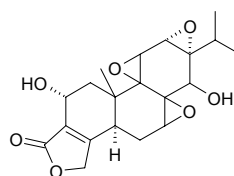
[In DNP]  $C_{47}H_{51}NO_{14}$  (853.93). mp 168~171°C,  $[\alpha]_D = -32.3^\circ$  (MeOH). **Pharm:** Cytotoxic (KB,  $ED_{50} = 3.0 \times 10^{-5}\mu\text{g/mL}$ ). **Source:** DUAN YE HONG DOU SHAN *Taxus brevifolia*. **Ref:** 662, 1831.

**7028 7-Epitaxuyunnanine A**

$C_{46}H_{57}NO_{14}$  (847.97).  $[\alpha]_D = -47.3^\circ$  ( $\text{CHCl}_3$ ). **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis*. **Ref:** 662.

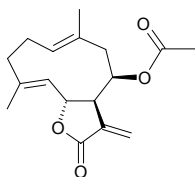
**7029 2-Epitripdiolide**

$C_{20}H_{24}O_7$  (376.41). Yellowish needles, mp 224~226°C. **Source:** LEI GONG TENG *Tripterygium wilfordii* (root cortex). **Ref:** 4871.

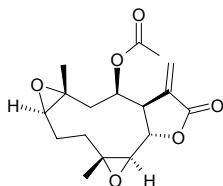


**7030 Eptulipinolide**

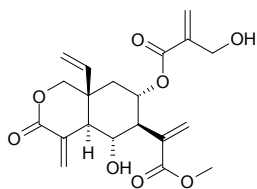
[24164-13-4] C<sub>17</sub>H<sub>22</sub>O<sub>4</sub> (290.36). mp 91~92°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +76° (*c* = 3.2, chloroform). **Pharm:** Cytotoxic (KB, ED<sub>50</sub> = 2.1 μg/mL); antineoplastic. **Source:** BAI CI GUO TUN CAO *Ambrosia dumosa*, BEI MEI E ZHANG QIU *Liriodendron tulipifera*, CHA MI SEN TUN CAO *Ambrosia chamissonis*. **Ref:** 658, 661.

**7031 Eptulipinolide diepoxide**

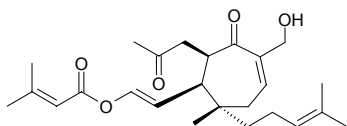
[39815-40-2] C<sub>17</sub>H<sub>22</sub>O<sub>6</sub> (322.36). mp 214~215°C (ethanol-ether), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -55.7° (*c* = 0.525, chloroform). **Pharm:** Cytotoxic (KB, ED<sub>50</sub> = 0.34 μg/mL); antineoplastic; insect antifeedant. **Source:** BEI MEI E ZHANG QIU *Liriodendron tulipifera*. **Ref:** 658, 661.

**7032 Epivernodalol**

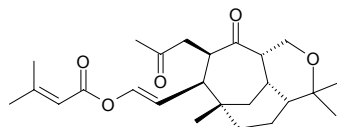
C<sub>20</sub>H<sub>24</sub>O<sub>8</sub> (392.41). mp 132°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +92.5° (*c* = 0.5, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, hmn colon carcinoma cell lines HCT15, IC<sub>50</sub> = (39.3±1.8) μmol/L, control 5-FU, IC<sub>50</sub> = 66 μmol/L; colon carcinoma HT29, IC<sub>50</sub> = (21.9±0.8) μmol/L, 5-FU, IC<sub>50</sub> = 49 μmol/L; breast carcinoma T47D, IC<sub>50</sub> = (22.5±0.7) μmol/L, control Adriamycin, IC<sub>50</sub> = 0.075 μmol/L; cervix carcinoma SiHa, IC<sub>50</sub> = (43.4±1.8) μmol/L, 5-FU, IC<sub>50</sub> = 0.034 μmol/L). **Source:** *Vernonia lasiopus*. **Ref:** 5359.

**7033 5-Epi-vibsanin C**

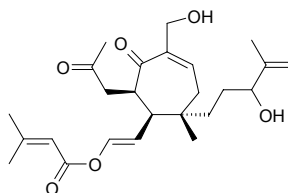
C<sub>25</sub>H<sub>36</sub>O<sub>5</sub> (416.56). [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +38.6° (*c* = 0.59, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (KB cells, IC<sub>50</sub> = 10.7 μmol/L). **Source:** RI BEN JIA MI *Viburnum awabuki* (leaf). **Ref:** 4168.

**7034 5-Epi-vibsanin E**

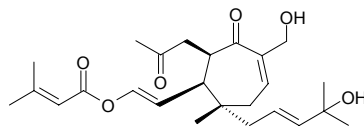
C<sub>25</sub>H<sub>36</sub>O<sub>5</sub> (416.56). [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -34.7° (*c* = 0.21, CHCl<sub>3</sub>). **Source:** RI BEN JIA MI *Viburnum awabuki* (leaf). **Ref:** 4168.

**7035 5-Epivibsanin G**

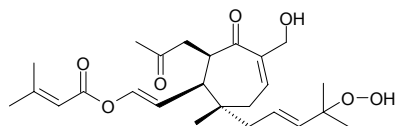
C<sub>25</sub>H<sub>36</sub>O<sub>6</sub> (432.56). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = +5° (*c* = 3.4, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, NUGC-3, weak activity). **Source:** XIANG QI JIA MI *Viburnum odoratissimum* (leaf and flower: yield = 0.00016%dw). **Ref:** 3004.

**7036 5-Epi-vibsanin H**

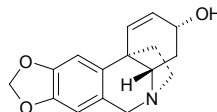
C<sub>25</sub>H<sub>36</sub>O<sub>6</sub> (432.56). [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +49.2° (*c* = 0.41, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (KB cells, IC<sub>50</sub> = 45.5 μmol/L)<sup>[4168]</sup>. **Source:** RI BEN JIA MI *Viburnum awabuki* (leaf), XIANG QI JIA MI *Viburnum odoratissimum* (leaf and flower: yield = 0.00036%dw)<sup>[3004]</sup>. **Ref:** 3004, 4168.

**7037 5-Epi-vibsanin K**

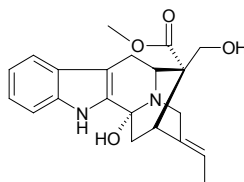
C<sub>25</sub>H<sub>36</sub>O<sub>7</sub> (448.56). [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +52.4° (*c* = 0.20, CHCl<sub>3</sub>). **Source:** RI BEN JIA MI *Viburnum awabuki* (leaf). **Ref:** 4168.

**7038 Epivittatine**

C<sub>16</sub>H<sub>17</sub>NO<sub>3</sub> (271.32). **Pharm:** AChE inhibitor (IC<sub>50</sub> = (239±9) μmol/L, control Galanthamine, IC<sub>50</sub> = (1.9±0.2) μmol/L). **Source:** *Crinum moorei*. **Ref:** 4952.

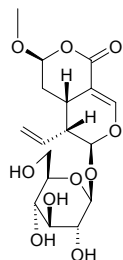
**7039 16-Epi-voacarpine**

[114027-38-2] C<sub>21</sub>H<sub>24</sub>N<sub>2</sub>O<sub>4</sub> (368.44). mp 162~165°C (dec), [ $\alpha$ ]<sub>D</sub> = +42.3°. **Source:** GOU WEN *Gelsemium elegans*. **Ref:** 13.

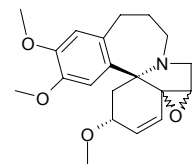


**7040 Epivogeloside**

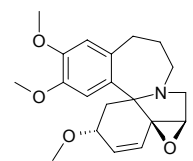
$C_{17}H_{24}O_{10}$  (388.37). **Source:** JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0016%dw)<sup>[4723]</sup>, LIU QIU SHE GEN CAO *Ophiorrhiza liukiensis* (whole herb). **Ref:** 4527, 4723.

**7041 Epiwilsonine**

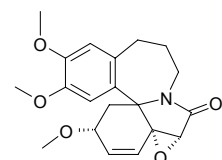
$C_{20}H_{25}NO_4$  (343.43). **Pharm:** Cytotoxic (KB oral epidermoid carcinoma, ED<sub>50</sub> = 1.94 μg/mL)<sup>[4253]</sup>. **Source:** SAN JIAN SHAN *Cephalotaxus fortunei*, TAI WAN CU FEI *Cephalotaxus wilsoniana* (twig), ZHONG GUO CU FEI ZHI YE *Cephalotaxus sinensis* [Syn. *Cephalotaxus harringtonia* var. *sinensis*]. **Ref:** 2, 660, 4253.

**7042 C-3-Epiwilsonine**

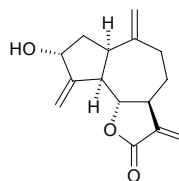
$C_{20}H_{25}NO_4$  (343.43). **Source:** TAI WAN CU FEI *Cephalotaxus wilsoniana* (leaf: yield = 0.00048%dw). **Ref:** 4759.

**7043 C-3-Epiwilsonione**

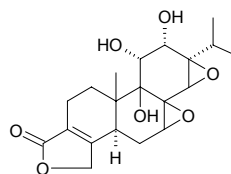
1,2-Didehydro-6,7-epoxy-3 $\alpha$ ,16,17-trimethoxyerythrinan-8-one  $C_{20}H_{23}NO_5$  (357.41). Colorless powder,  $[\alpha]_D^{28} = +11^\circ$  ( $c = 0.104$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 52 μg/mL; MCF7, IC<sub>50</sub> = 42 μg/mL; Hep3B, IC<sub>50</sub> = 52 μg/mL; HT29, IC<sub>50</sub> = 24.4 μg/mL). **Source:** TAI WAN CU FEI *Cephalotaxus wilsoniana* (leaf: yield = 0.00067%dw). **Ref:** 4759.

**7044 3-Epizaluzanin C**

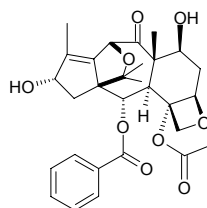
Isozaluzanin C  $C_{15}H_{18}O_3$  (246.31). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, CD<sub>50</sub> = 15 μg/mL; HeLa, CD<sub>50</sub> = 13.5 μg/mL; OVCAR-3, CD<sub>50</sub> = 7.5 μg/mL; control Cisplatin, HepG<sub>2</sub>, CD<sub>50</sub> = 2.8 μg/mL; HeLa, CD<sub>50</sub> = 5.2 μg/mL; OVCAR-3, CD<sub>50</sub> = 3 μg/mL; without significant antibacterial effect)<sup>[4720]</sup>. **Source:** MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*] (root: yield = 0.0003%dw)<sup>[4720]</sup>. **Ref:** 2, 4720.

**7045 13,14-Epoxy 9,11,12-trihydroxytriptolide**

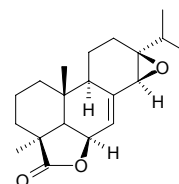
$C_{20}H_{26}O_7$  (378.43). Colorless filiform crystals, mp 268–270°C. **Source:** LEI GONG TENG *Tripterygium wilfordii*. **Ref:** 256.

**7046 10,15-Epoxy-11(15→1)-abeo-10-deacetylbaaccatin III**

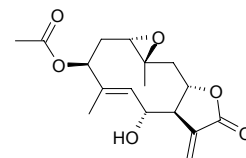
$C_{29}H_{34}O_9$  (526.59).  $[\alpha]_D = -18^\circ$  ( $CH_2Cl_2$ ). **Source:** XI MA LA YA HONG DOU SHAN *Taxus wallichiana*. **Ref:** 662.

**7047 13 $\beta$ ,14 $\beta$ -Epoxyabiet-7-en-19,6 $\beta$ -olide**

$C_{20}H_{28}O_3$  (316.44). Oil,  $[\alpha]_D^{25} = -8.8^\circ$  ( $c = 0.12$ ,  $CHCl_3$ ). **Source:** LONG BAI *Juniperus chinensis* var. *kaizuka* (leaf: yield = 0.000017%dw). **Ref:** 3050.

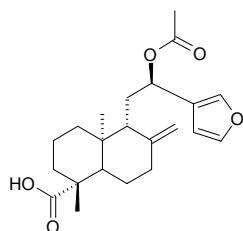
**7048 (E)-1 $\alpha$ ,10 $\beta$ -Epoxy-3 $\beta$ -acetoxy-6 $\alpha$ -hydroxygermacra-4,11(13)-dien-12,8 $\alpha$ -olide**

$C_{17}H_{22}O_6$  (322.36). Amorphous solid,  $[\alpha]_D^{25} = +54^\circ$  ( $c = 0.35$ ,  $CHCl_3$ ). **Source:** *Anthemis carpatica* (aerial parts). **Ref:** 3974.

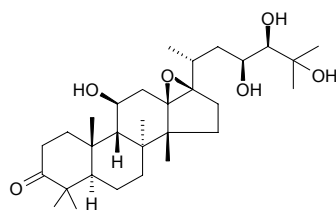


**7049 15,16-Epoxy-12(R)-acetoxy-8(17),13(16),14-ent-labdatrien-19-oic acid**

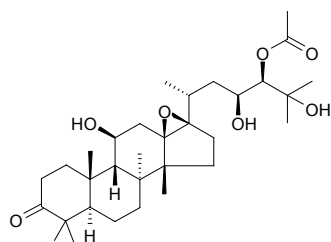
$C_{22}H_{30}O_5$  (374.48). Yellow oil,  $[\alpha]_D^{25} = -10.8^\circ$  ( $c = 0.93$ ,  $CHCl_3$ ). **Pharm:** Anticidal (inhibits growth of alga *Raphidocelis subcapitata*, 72h  $IC_{50} = 107.8 \mu\text{mol/L}$ ). **Source:** BI CHI YAN ZI CAI *Potamogeton pectinatus* (whole herb). **Ref:** 3488.

**7050 13β,17β-Epoxyalisol A**

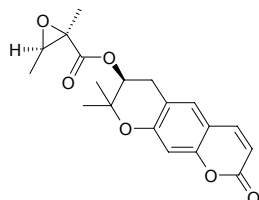
$C_{30}H_{50}O_6$  (506.73). Colorless powder. **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*]. **Ref:** 2213.

**7051 13β,17β-Epoxyalisol A 24-acetate**

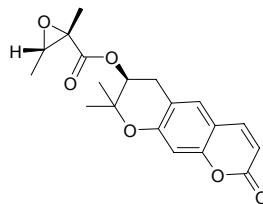
$C_{32}H_{52}O_7$  (548.77). Colorless needles, mp 262~263°C. **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*]. **Ref:** 2213.

**7052 (2''R,3''R)-Epoxyangeloyldecurisinal**

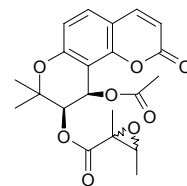
$C_{19}H_{20}O_6$  (344.37). Colorless needles (MeOH), mp 141~143°C,  $[\alpha]_D = +24^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). **Pharm:** Neuroprotective (primary cultures of rat cortical cells, control, cell viability = 100%, injured by glutamate, cell viability = 0%, 0.1  $\mu\text{mol/L}$ , cell viability = (47.5±4.0)%,  $p < 0.01$ , 1  $\mu\text{mol/L}$ , cell viability = (61.1±5.0)%,  $p < 0.01$ , 10  $\mu\text{mol/L}$ , cell viability = (56.7±2.8)%,  $p < 0.01$ ). **Source:** CHAO XIAN DANG GUI *Angelica gigas* (root: yield = 0.0003%dw). **Ref:** 4796.

**7053 (2''S,3''S)-Epoxyangeloyldecurisinal**

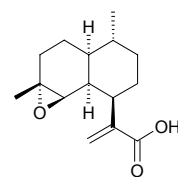
$C_{19}H_{20}O_6$  (344.37). Colorless needles (MeOH), mp 140~142°C,  $[\alpha]_D = +91^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). **Pharm:** Neuroprotective (primary cultures of rat cortical cells, control, cell viability = 100%, injured by glutamate, cell viability = 0%, 0.1  $\mu\text{mol/L}$ , cell viability = (70.0±6.0)%,  $p < 0.001$ , 1  $\mu\text{mol/L}$ , cell viability = (52.5±4.4)%,  $p < 0.01$ , 10  $\mu\text{mol/L}$ , cell viability = (49.0±3.0)%,  $p < 0.01$ ). **Source:** CHAO XIAN DANG GUI *Angelica gigas* (root: yield = 0.00015%dw). **Ref:** 4796.

**7054 (3'R,4'R)-3'-Epoxyangeloyloxy-4'-acetoxy-3',4'-dihydroseselin**

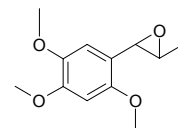
$C_{21}H_{22}O_8$  (402.40). **Pharm:** Antiallergic. **Source:** SHI SHI DANG GUI *Angelica shkiokiana*. **Ref:** 658.

**7055 Epoxyarteannuinic acid**

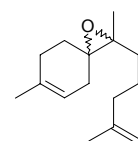
$C_{15}H_{22}O_3$  (250.34). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 2.

**7056 cis-1',2'-Epoxyasarone**

1,2,4-Trimethoxy-5-(*E*-3'-methyloxiranyl) benzene  $C_{12}H_{16}O_4$  (224.26). Colorless oil. **Source:** SHI CHANG PU *Acorus tatarinowii*. **Ref:** 8, 660.

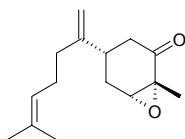
**7057 6,7-Epoxybisabola-2,11-diene**

(2,6-Dimethyl-2-(4-methylpent-4-enyl)-1-oxaspiro[2.5]oct-5-ene)  $C_{15}H_{24}O$  (220.36). Colorless oil. **Source:** NING BIAN E TAI *Radula perrottetii* (essential oil). **Ref:** 5272.

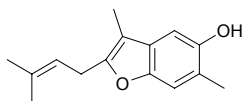


**7058 (3R,4R,6S)-3,4-Epoxybisabola-7(14),10-dien-2-one**

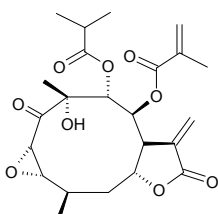
C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = -23.2° (c = 0.2, CHCl<sub>3</sub>). Source: KUAN DONG HUA *Tussilago farfara* (flower bud). Ref: 3531.

**7059 1,8-Epoxy-1(6),2,4,7,10-bisabolapentaen-4-ol**

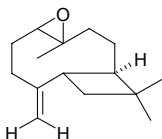
C<sub>15</sub>H<sub>18</sub>O<sub>2</sub> (230.31). Colorless oil. Source: RI BEN LIU SHAN *Cryptomeria japonica* (black heartwood). Ref: 4279.

**7060 2,3-Epoxycalealactone A**

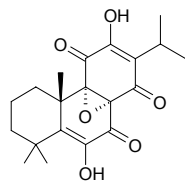
C<sub>23</sub>H<sub>30</sub>O<sub>9</sub> (450.49). Colorless needles, mp 99~101°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +168.7° (c = 0.001, CHCl<sub>3</sub>). Pharm: Cytotoxic (U937, IC<sub>50</sub> > 5 μmol/L; control Parthenolide, IC<sub>50</sub> = 1.9 μmol/L). Source: YOU KA MEI JU *Calea urticifolia* (leaf). Ref: 3887.

**7061 4,5-Epoxy-β-caryophyllene**

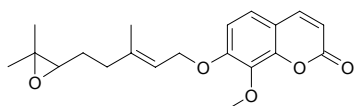
C<sub>15</sub>H<sub>24</sub>O (220.36). Source: *Stauranthus perforatus* (root). Ref: 5253.

**7062 8α,9α-Epoxycoleon U-quinone**

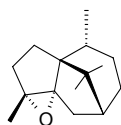
C<sub>20</sub>H<sub>24</sub>O<sub>6</sub> (360.41). Pharm: Cytotoxic (*in vitro*, K562, IC<sub>50</sub> = 13.9 μg/mL; control Mitoxantrone, IC<sub>50</sub> = 2 μg/mL). Source: HUANG QIAO RUI HUA *Coleus xanthanthus* (aerial parts; yield = 0.00047% dw). Ref: 4625.

**7063 Epoxycollinin**

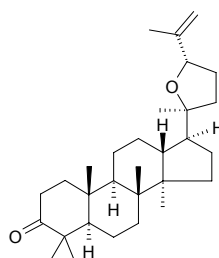
C<sub>20</sub>H<sub>24</sub>O<sub>5</sub> (344.41). Pharm: Antibacterial; smooth muscle relaxant; anticoagulant; photosensitive agent; ichthyotoxin; toxin. Source: *Zanthoxylum* sp. Ref: 2176.

**7064 Epoxycyperene**

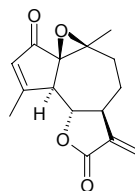
C<sub>15</sub>H<sub>24</sub>O (220.36). Source: KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides* (essential oil). Ref: 5129.

**7065 20R,24R-Epoxy-25-dammaren-3-one**

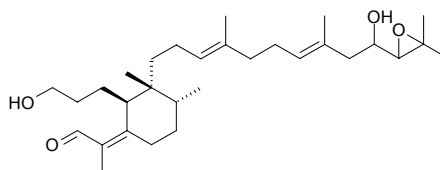
C<sub>30</sub>H<sub>48</sub>O<sub>2</sub> (440.72). Colorless acicular crystals (MeOH), mp 225°C, [ $\alpha$ ]<sub>D</sub><sup>21.5</sup> = +57° (c = 1.0, CHCl<sub>3</sub>). Source: XIANG GANG JIAN MU *Dysoxylum hongkongense*. Ref: 422.

**7066 1β,10β-Epoxydehydroleucodin**

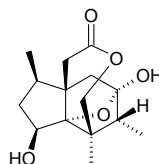
C<sub>15</sub>H<sub>16</sub>O<sub>4</sub> (260.29). Source: YI KUA *Artemisia myriantha* (aerial parts). Ref: 4618.

**7067 22,23-Epoxy-10-deoxy-21-hydroxyiridal**

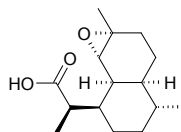
C<sub>30</sub>H<sub>50</sub>O<sub>4</sub> (474.73). Source: SHI GUAN YUAN WEI *Iris cristata*. Ref: 2417.

**7068 (3S\*,6R\*)-4,7-Epoxy-6-deoxypseudoanisatin**

C<sub>15</sub>H<sub>22</sub>O<sub>5</sub> (282.34). [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +42.6° (c = 0.96, MeOH). Source: MIN WAN BA JIAO *Illicium minwanense* (pericarp: 0.00011% dw). Ref: 4697.

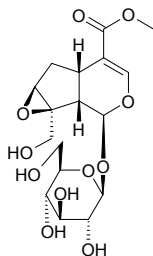
**7069 α-Epoxy-dihydroartemisinic acid**

C<sub>15</sub>H<sub>24</sub>O<sub>5</sub> (252.36). Source: HUANG HUA HAO *Artemisia annua* (seed). Ref: 3435.

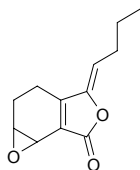


**7070 7 $\beta$ ,8 $\beta$ -Epoxy-8 $\alpha$ -dihydrogeniposide**

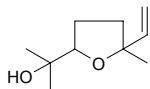
C<sub>17</sub>H<sub>24</sub>O<sub>11</sub> (404.37). Amorphous powder,  $[\alpha]_D^{25} = -43.4^\circ$  ( $c = 0.554$ , MeOH). **Source:** ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*] (leaf). **Ref:** 4408.

**7071 (Z)-6,7-Epoxy-6,7-dihydroligustilide**

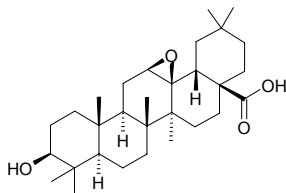
C<sub>12</sub>H<sub>14</sub>O<sub>3</sub> (206.24). **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. **Ref:** 2.

**7072 Epoxydihydrolinalool**

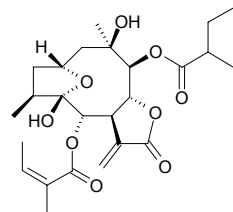
[60047-17-8] C<sub>10</sub>H<sub>18</sub>O<sub>2</sub> (170.25). **Source:** XING ZI *Prunus armeniaca*. **Ref:** 6.

**7073 Epoxydihydro-oleanolic acid**

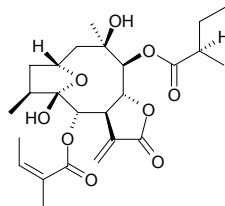
C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). **Source:** NAN HE SHI *Daucus carota*. **Ref:** 6.

**7074 2,5-Epoxy-5,10-dihydroxy-6-angeloyloxy-9-(2-methylbutyryloxy)-germacran-8,12-olide**

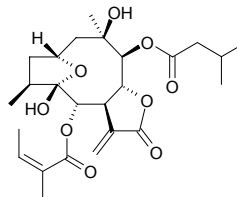
[247050-76-6] C<sub>25</sub>H<sub>36</sub>O<sub>9</sub> (480.56). White crystals, mp 190~193°C,  $[\alpha]_D^{25} = -4.3^\circ$  ( $c = 1.0$ , MeOH). **Source:** DONG BEI AN HUA JIN WA ER *Carpesium triste* var. *manshuricum*. **Ref:** 2349.

**7075 2,5-Epoxy-5,10-dihydroxy-6-angeloyloxy-9-(2R-methylbutyryloxy)-germacran-8,12-olide**

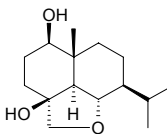
Inepatolide [75102-66-8] C<sub>25</sub>H<sub>36</sub>O<sub>9</sub> (480.56). **Source:** ZE LAN YANG ER JU *Inula eupatorioides*. **Ref:** 1521.

**7076 2,5-Epoxy-5,10-dihydroxy-6-angeloyloxy-9-(3-methylbutyryloxy)-germacran-8,12-olide**

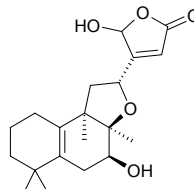
[247017-80-7] C<sub>25</sub>H<sub>36</sub>O<sub>9</sub> (480.56). White crystals, mp 160~164°C,  $[\alpha]_D^{25} = +1.13^\circ$  ( $c = 1.0$ , MeOH). **Source:** DONG BEI AN HUA JIN WA ER *Carpesium triste* var. *manshuricum*. **Ref:** 2349.

**7077 6,15 $\alpha$ -Epoxy-1 $\beta$ ,4 $\beta$ -dihydroxyeudesmane**

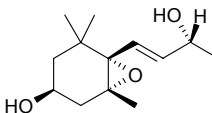
C<sub>15</sub>H<sub>26</sub>O<sub>3</sub> (254.37). **Source:** ZHOU YE MU LAN *Magnolia praecocissima* (seed). **Ref:** 4181.

**7078 ent-8S,12S-Epoxy-7R,16-dihydroxyhalima-5(10),13-dien-15,16-olide**

C<sub>20</sub>H<sub>28</sub>O<sub>5</sub> (348.44). White amorphous powder,  $[\alpha]_D = -110^\circ$  (CHCl<sub>3</sub>,  $c = 0.05$ ). **Pharm:** Cytotoxic (Lu1, ED<sub>50</sub> = 15.4 $\mu$ g/mL, control Ellipticine, ED<sub>50</sub> = 0.02 $\mu$ g/mL; Col2, ED<sub>50</sub> = 14.8 $\mu$ g/mL, Ellipticine, ED<sub>50</sub> = 0.3 $\mu$ g/mL; KB, ED<sub>50</sub> = 16.9 $\mu$ g/mL, Ellipticine, ED<sub>50</sub> = 0.04 $\mu$ g/mL; LNCaP, ED<sub>50</sub> = 13.7 $\mu$ g/mL, Ellipticine, ED<sub>50</sub> = 0.8 $\mu$ g/mL). **Source:** *Alomia myriadenia* (aerial parts). **Ref:** 3479.

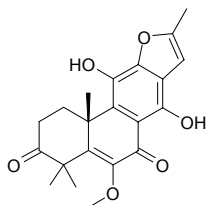
**7079 (3S,5R,6S,7E,9R)-5,6-Epoxy-3,9-dihydroxy-7-megastigmane**

C<sub>13</sub>H<sub>22</sub>O<sub>3</sub> (226.32). Colorless oil,  $[\alpha]_D^{25} = -53.9^\circ$  ( $c = 0.47$ , CH<sub>2</sub>Cl<sub>2</sub>). **Pharm:** Phytotoxin (inhibits germination and growth of *Lactuca sativa*). **Source:** PA KE YE XIANG SHU *Cestrum parqui* (leaf). **Ref:** 3776.



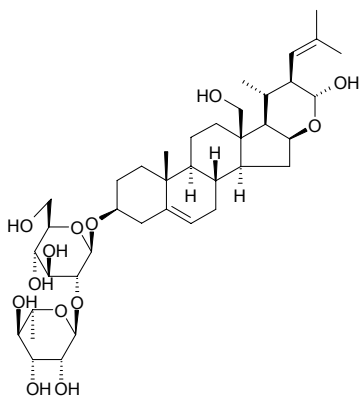
**7080 12,16-Epoxy-11,14-dihydroxy-6-methoxy-17(15-16)-abeo-abieta-5,8,11,13,15-pentaene-3,7-dione**

$C_{21}H_{22}O_6$  (370.41). mp 248.0°C,  $[\alpha]_D^{20} = +50.0^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). **Pharm:** Antiproliferative (*in vitro*, MTT assay, CEM,  $IC_{50} = 24.2\mu\text{mol/L}$ , control Doxorubicin,  $IC_{50} = 0.036\mu\text{mol/L}$ , HeLa,  $IC_{50} = 12.7\mu\text{mol/L}$ , Doxorubicin,  $IC_{50} = 0.027\mu\text{mol/L}$ , HCT8,  $IC_{50} > 72.2\mu\text{mol/L}$ , Doxorubicin,  $IC_{50} = 0.024\mu\text{mol/L}$ , MCF7,  $IC_{50} > 72.2\mu\text{mol/L}$ , Doxorubicin,  $IC_{50} = 0.183\mu\text{mol/L}$ , B-16,  $IC_{50} > 72.2\mu\text{mol/L}$ , Doxorubicin,  $IC_{50} = 0.056\mu\text{mol/L}$ ). **Source:** *Aegiphila thotzkiana* (root). **Ref:** 4940.



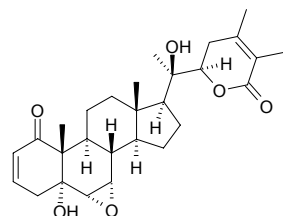
**7081 (22S,23R)-16β,23-Epoxy-18,23-dihydroxy-22-(2-methyl-1-propenyl)-24-norchol-5-en-3β-yl O-α-L-rhamnopyranosyl-(1→2)-β-D-glucopyranoside**

$C_{39}H_{62}O_{13}$  (738.92). Amorphous solid,  $[\alpha]_D^{25} = -18.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60 cells,  $IC_{50} > 10\mu\text{mol/L}$ , control Etoposide,  $IC_{50} = 0.025\mu\text{mol/L}$ ). **Source:** XIA FENG XIN ZI *Galtonia candicans* (bulb). **Ref:** 4116.



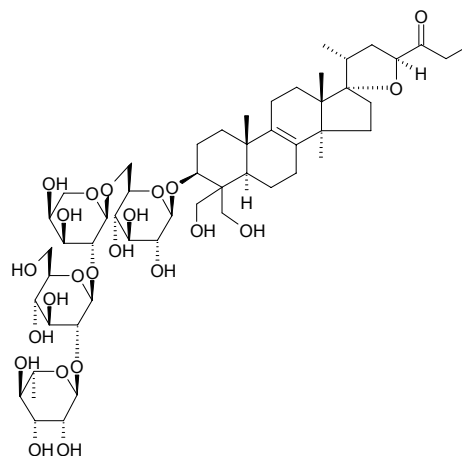
**7082 6α,7α-Epoxy-5α,20β-dihydroxy-1-oxowitha-2,24-dienolide**

$C_{28}H_{38}O_6$  (470.61). **Pharm:** BChE inhibitor ( $IC_{50} = (50\pm 2)\mu\text{mol/L}$ , control Galanthamine  $IC_{50} = (0.50\pm 0.001)\mu\text{mol/L}$ , Eserine  $IC_{50} = (0.04\pm 0.0001)\mu\text{mol/L}$ ); AChE inhibitor inactive<sup>[2563]</sup>. **Source:** CUI MIAN SHUI QIE *Withania somnifera*. **Ref:** 2563.



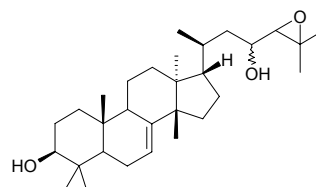
**7083 (23S)-17α,23-Epoxy-28,29-dihydroxy-3β-[(O-α-L-rhamnopyranosyl-(1→2)-O-β-D-glucopyranosyl-(1→2)-α-L-arabinopyranosyl-(1→6)-β-D-glucopyranosyl)oxy]-27-norlanost-8-en-24-one**

$C_{52}H_{84}O_{23}$  (1077.24). **Pharm:** Cytotoxic (Hmn oral squamous cell carcinoma cells HSC-2,  $IC_{50} = 19\mu\text{g/mL}$ , control Etoposide,  $IC_{50} = 24\mu\text{g/mL}$ ). **Source:** XUE GUANG HUA *Chionodoxa luciliae* (fresh bulb). **Ref:** 4308.



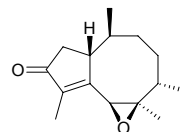
**7084 24,25-Epoxy-3β,23-dihydroxy-7-tirucallene**

$C_{30}H_{50}O_3$  (458.73). Prisms ( $Me_2CO$ ), mp 155–157°C. **Source:** HAI NAN JIAN MU *Dysoxylum hainanense* (bark). **Ref:** 3987.



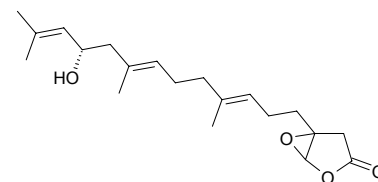
**7085 6,7-Epoxy-4-dumorten-3-one**

$C_{15}H_{22}O_2$  (234.34). Oil. **Source:** MAO DI QIAN *Dumortiera hirsuta*. **Ref:** 2283.



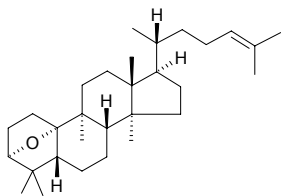
**7086 Epoxyelegantolactone**

1,2-Epoxy-13-hydroxy-6,10,14-phyttatrien-20,1-olide [165133-76-6]  $C_{20}H_{30}O_4$  (334.46). Oil,  $[\alpha]_D^{25} = -0.9^\circ$  ( $c = 2.8$ ,  $CH_2Cl_2$ ). **Source:** SHUANG CHA ZAO *Bifurcaria bifurcata*. **Ref:** 2405.

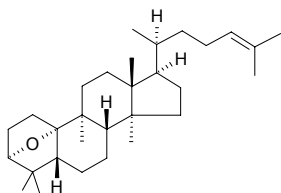


**7087 (20R)-3 $\alpha$ ,10 $\alpha$ -Epoxy-9-epi-cucurbita-24-ene**

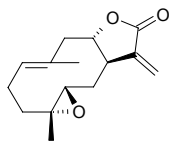
[259657-91-5] C<sub>30</sub>H<sub>50</sub>O (426.73). Oil. Source: *Senecio selloi*. Ref: 2416.

**7088 (20S)-3 $\alpha$ ,10 $\alpha$ -Epoxy-9-epi-cucurbita-24-ene**

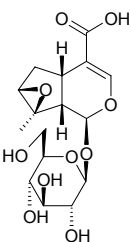
[259657-93-7] C<sub>30</sub>H<sub>50</sub>O (426.73). Oil. Source: *Senecio selloi*. Ref: 2416.

**7089 4 $\alpha$ ,5 $\beta$ -Epoxy-8-epiinnunolide**

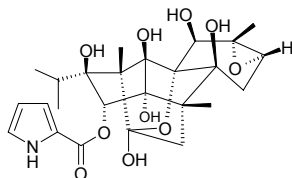
C<sub>15</sub>H<sub>20</sub>O<sub>3</sub> (248.32). Source: SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. Ref: 3932.

**7090 7,8-Epoxy-8-epi-loganic acid**

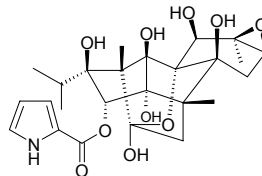
C<sub>16</sub>H<sub>22</sub>O<sub>10</sub> (374.35). White powder. Source: BO SI YI MU CAO *Leonurus persicus*. Ref: 2499.

**7091 8 $\alpha$ ,9 $\alpha$ -Epoxy-10-epi-ryanodine**

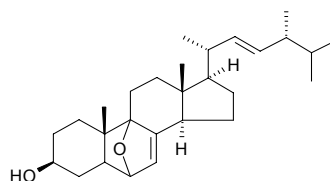
C<sub>25</sub>H<sub>33</sub>NO<sub>10</sub> (507.54). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 3:1), mp 196°C, [ $\alpha$ ]<sub>D</sub> = +13° (c = 0.4). Pharm: Cardiac contraction inhibitor (guinea-pig papillary muscle, causes a prolongation of the latency time and decrease of contraction force, EC<sub>50</sub> = 770nmol/L). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

**7092 8 $\beta$ ,9 $\beta$ -Epoxy-10-epi-ryanodine**

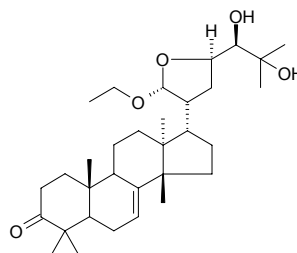
C<sub>25</sub>H<sub>33</sub>NO<sub>10</sub> (507.54). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 3:1), mp 212°C, [ $\alpha$ ]<sub>D</sub> = +7° (c = 0.2). Pharm: Cardiac contraction inhibitor (guinea-pig papillary muscle, causes a prolongation of the latency time and decrease of contraction force, EC<sub>50</sub> = 540nmol/L). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

**7093 6,9-Epoxy-ergosta-7,22-dien-3-ol**

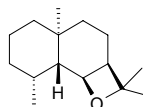
C<sub>28</sub>H<sub>44</sub>O<sub>2</sub> (412.66). White acicular crystals, mp 229–230°C. Source: SHI HU XIAO GU *Mycena dendrobii*. Ref: 851.

**7094 21R,23R-Epoxy,21 $\alpha$ -ethoxy,24S,25-dihydroxyapotirucalla-7-en-3-one**

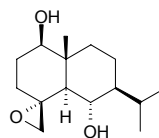
C<sub>32</sub>H<sub>52</sub>O<sub>5</sub> (516.77). White crystals. Source: MA LA BA JIAN MU *Dysoxylum malabaricum* (leaf). Ref: 5130.

**7095 (+)-6,11-Epoxy-eudesmane**

C<sub>15</sub>H<sub>26</sub>O (222.37). Colorless oil. Source: *Tritomaria polita* (essential oil). Ref: 3446.

**7096 4 $\alpha$ ,15-Epoxyeudesmane-1 $\beta$ ,6 $\alpha$ -diol**

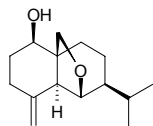
C<sub>15</sub>H<sub>26</sub>O<sub>3</sub> (254.37). Source: YI NIAN PENG *Erigeron annuus* (aerial parts), SU MEN BAI JIU CAO *Erigeron sumatrensis* (aerial parts). Ref: 4338.



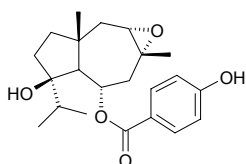


**7097 6 $\beta$ ,14-Epoxyeudesm-4(15)-en-1 $\beta$ -ol**

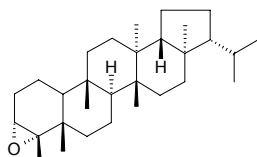
C<sub>15</sub>H<sub>24</sub>O<sub>2</sub> (236.36). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = +14.6° (*c* = 0.1, CHCl<sub>3</sub>). Source: FEI CHENG FEI PENG *Erigeron philadelphicus* (aerial parts). Ref: 4338.

**7098 8,9-Epoxy-ferutinin**

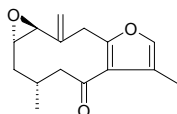
C<sub>22</sub>H<sub>30</sub>O<sub>5</sub> (374.48). Source: YI LANG A WEI *Ferula kuhistanica* (stem). Ref: 3977.

**7099 3 $\alpha$ ,4 $\alpha$ -Epoxyfilicane**

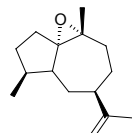
[23983-65-5] C<sub>30</sub>H<sub>50</sub>O (426.73). mp 229~231°C. Source: ZHU ZONG CAO *Adiantum capillus-veneris*. Ref: 6.

**7100 rel-1S,2S-Epoxy-4R-furanogermacr-10(15)-en-6-one**

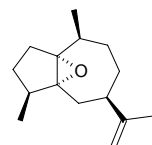
C<sub>15</sub>H<sub>18</sub>O<sub>3</sub> (246.31). Colorless oil, [ $\alpha$ ]<sub>D</sub> = -160.0° (*c* = 2.5, CHCl<sub>3</sub>). Pharm: Cytotoxic (*in vitro*, MCF7, IC<sub>50</sub> = 40 μmol/L, weak activity). Source: MO YAO *Commiphora myrrha* [Syn. *Commiphora molmol*]. Ref: 3093.

**7101 (-)-1,10-Epoxy-guaia-11-ene**

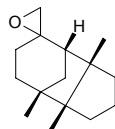
C<sub>15</sub>H<sub>24</sub>O (220.36). Source: CHEN XIANG *Aquilaria agallocha*. Ref: 13.

**7102 Epoxyguaia**

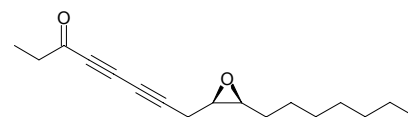
C<sub>15</sub>H<sub>24</sub>O (220.36). bp 102~104°C/1mmHg. Source: XIANG FU *Cyperus rotundus*. Ref: 6.

**7103 3(15)-Epoxygymnomitrane**

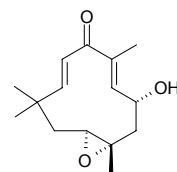
C<sub>15</sub>H<sub>24</sub>O (220.36). Oil, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -4.8° (*c* = 0.83). Source: JIE XING YE TAI *Jungermannia truncata*. Ref: 4201.

**7104 (9R,10S)-Epoxyheptadecan-4,6-diyn-3-one**

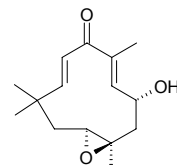
C<sub>17</sub>H<sub>24</sub>O<sub>2</sub> (260.38). Light yellow oil, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -70.0° (*c* = 1.0, CHCl<sub>3</sub>). Pharm: DGAT inhibitor (IC<sub>50</sub> = 9 μg/mL, control Evocarpine, IC<sub>50</sub> = 8.1 μg/mL). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 4943.

**7105 (2R,3R,5R)-2,3-Epoxy-6,9-humuladien-5-ol-8-one**

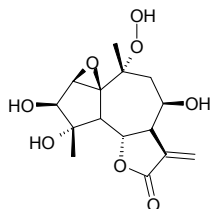
C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). Pharm: CYP3A4 inhibitor (IC<sub>50</sub> = 42.6 μmol/L, control Ketoconazole, IC<sub>50</sub> = 0.245 μmol/L); CYP2D6 inhibitor inactive (IC<sub>50</sub> > 100 μmol/L, control Quinidine, IC<sub>50</sub> = 0.078 μmol/L). Source: FANG XIANG JIANG *Zingiber aromaticum* (rhizome: 0.00060%dw). Ref: 4669.

**7106 (2R,3S,5R)-2,3-Epoxy-6,9-humuladien-5-ol-8-one**

C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). Pharm: CYP3A4 inhibitor (IC<sub>50</sub> = 62.5 μmol/L, control Ketoconazole, IC<sub>50</sub> = 0.245 μmol/L); CYP2D6 inhibitor inactive (IC<sub>50</sub> > 100 μmol/L, control Quinidine, IC<sub>50</sub> = 0.078 μmol/L). Source: FANG XIANG JIANG *Zingiber aromaticum* (rhizome: 0.00050%dw). Ref: 4669.

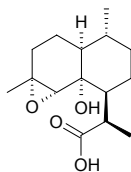
**7107 1 $\beta$ ,2 $\beta$ -Epoxy-10 $\alpha$ -hydroperoxy-3 $\beta$ ,4 $\alpha$ ,8 $\beta$ -trihydroxyguaia-11(13)-en-12,6 $\alpha$ -olide**

C<sub>15</sub>H<sub>20</sub>O<sub>8</sub> (328.32). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +24° (*c* = 0.10, MeOH). Pharm: Antifungal (*Candida albicans*, MIC = 20 μg/mL). Source: GUAN MU YA JU *Ajania fruticulosa* (aerial parts). Ref: 5222.

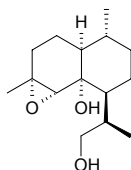


**7108 4 $\alpha$ ,5 $\alpha$ -Epoxy-6 $\alpha$ -hydroxy amorphan-12-oic acid**

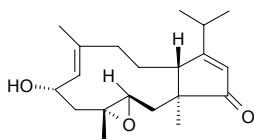
C<sub>15</sub>H<sub>24</sub>O<sub>4</sub> (268.36). Colorless oil,  $[\alpha]_D = -62.5^\circ$  ( $c = 1.0$ , CHCl<sub>3</sub>). Source: HUANG HUA HAO *Artemisia annua* (seed). Ref: 3435.

**7109 4 $\alpha$ ,5 $\alpha$ -Epoxy-6 $\alpha$ -hydroxy amorphan-12-ol**

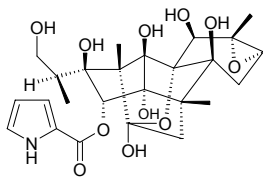
C<sub>15</sub>H<sub>26</sub>O<sub>3</sub> (254.37). Colorless oil. Source: HUANG HUA HAO *Artemisia annua* (seed). Ref: 3435.

**7110 (1S\*,3R\*,4R\*,6S\*,11S\*)-3,4-Epoxy-6-hydroxy-dolabella-7E,12-dien-14-one**

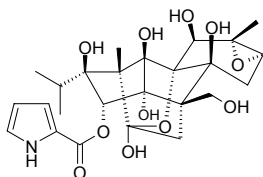
C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). Clear film,  $[\alpha]_D^{20} = -77.3^\circ$  ( $c = 0.21$ , CHCl<sub>3</sub>). Source: fungus *Stachybotrys chartarum*. Ref: 5104.

**7111 (13S)-8 $\alpha$ ,9 $\alpha$ -Epoxy-18-hydroxy-10-epi-ryanodine**

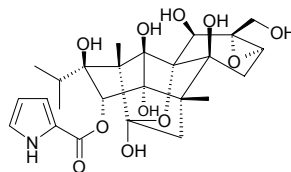
C<sub>25</sub>H<sub>33</sub>NO<sub>11</sub> (523.54). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 3:1), mp 200°C,  $[\alpha]_D = +7^\circ$  ( $c = 0.2$ ). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

**7112 8 $\alpha$ ,9 $\alpha$ -Epoxy-20-hydroxy-10-epi-ryanodine**

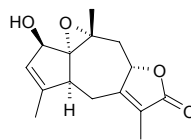
C<sub>25</sub>H<sub>33</sub>NO<sub>11</sub> (523.54). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 3:1), mp 208°C,  $[\alpha]_D = +8^\circ$  ( $c = 0.1$ ). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

**7113 8 $\alpha$ ,9 $\alpha$ -Epoxy-21-hydroxy-10-epi-ryanodine**

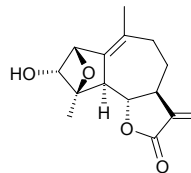
EP-1 C<sub>25</sub>H<sub>33</sub>NO<sub>11</sub> (523.54). Crystals (CHCl<sub>3</sub>:Me<sub>2</sub>CO = 3:1), mp 193°C,  $[\alpha]_D = +13^\circ$  ( $c = 0.2$ ). Source: QU CHONG CAO *Spigelia anthelmia* (aerial parts). Ref: 5139.

**7114 (1 $\alpha$ ,2 $\beta$ ,5 $\alpha$ ,8 $\alpha$ 10 $\alpha$ )-1,10-Epoxy-2-hydroxy-3,7(11)-guaiaadien-12,8-olide**

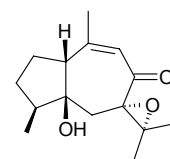
C<sub>15</sub>H<sub>18</sub>O<sub>4</sub> (262.31). Yellow oil,  $[\alpha]_D^{25} = +61.0^\circ$  ( $c = 0.4$ , CHCl<sub>3</sub>). Pharm: CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4, IC<sub>50</sub> = 98.2 μmol/L; CYP2D6, IC<sub>50</sub> > 100 μmol/L; control Ketoconazole, CYP3A4, IC<sub>50</sub> = 0.72 μmol/L; control Quinidine, CYP2D6, IC<sub>50</sub> = 0.082 μmol/L). Source: BI CHENG QIE *Piper cubeba* (fruit: yield = 0.00023%dw). Ref: 4797.

**7115 5 $\alpha$ H-2 $\beta$ ,4 $\beta$ -Epoxy-3 $\alpha$ -hydroxy-guaia-1(10),11(13)-dien-6 $\alpha$ ,12-olide**

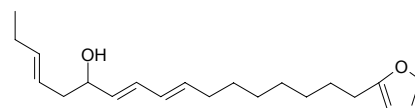
C<sub>15</sub>H<sub>18</sub>O<sub>4</sub> (262.31). Colorless gum,  $[\alpha]_D^{20} = +12.9^\circ$  ( $c = 0.1$ , EtOH). Pharm: Cytotoxic (KB ATCC CCL17, IC<sub>50</sub> = 3.6 μg/mL). Source: *Warionia saharae*. Ref: 5399.

**7116 7 $\alpha$ -11 $\alpha$ -Epoxy-5 $\beta$ -hydroxy-9-guaiaen-8-one**

C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 μmol/L, InRt = (32.0 ± 2.0)%, control L-NMMA, 100 μmol/L, InRt = (79.2 ± 0.9)%,  $p < 0.01$ ). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

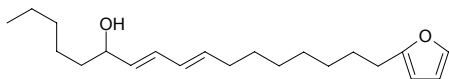
**7117 1,4-Epoxy-16-hydroxyheneicos-1,3,12,14,18-pentaene**

C<sub>21</sub>H<sub>32</sub>O<sub>2</sub> (316.49). Viscous oil. Source: YA LUO CHUN *Cipadessa baccifera*. Ref: 745.

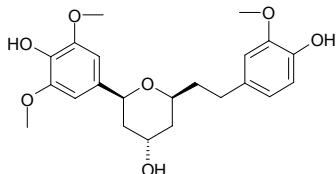


**7118 1,4-Epoxy-16-hydroxyhenicos-1,3,12,14-tetraene**

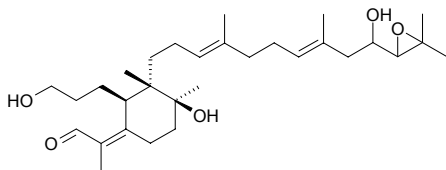
$C_{21}H_{34}O_2$  (318.50). Viscous oil. Source: YA LUO CHUN *Cipadessa baccifera*. Ref: 745.

**7119 1,5-Epoxy-3-hydroxy-1-(4-hydroxy-3,5-dimethoxyphenyl)-7-(4-hydroxy-3-methoxyphenyl)heptane**

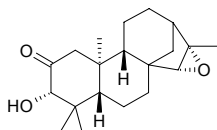
$C_{22}H_{28}O_7$  (404.46). Colorless oil,  $[\alpha]_D^{16} = -24^\circ$  ( $c = 0.19$ , EtOH). Source: SHENG JIANG *Zingiber officinale*. Ref: 3803.

**7120 22,23-Epoxy-21-hydroxyiridal**

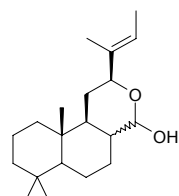
$C_{30}H_{50}O_5$  (490.73). Source: SHI GUAN YUAN WEI *Iris cristata*. Ref: 2417.

**7121 ent-15,16-Epoxy-3β-hydroxy-kauran-2-one**

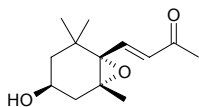
$C_{20}H_{30}O_3$  (318.46). Colorless needle crystals, mp  $123^\circ\text{C}$ ,  $[\alpha]_D^{24} = -5^\circ$  ( $c = 0.13$ , MeOH). Pharm: Antibacterial (inhibits colony formation of *X. campestris* pv. *oryzae*, 200mg/L, InRt = 30%). Source: DAO CAO *Oryza sativa* (leaf). Ref: 3814.

**7122 12,17-Epoxy-17-hydroxyabda-13(E)-ene**

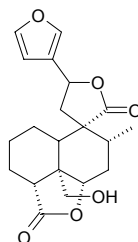
$C_{20}H_{34}O_2$  (306.49). mp  $150\sim 152^\circ\text{C}$ ,  $[\alpha]_D^{20} = -8.526^\circ$  ( $c = 1.08$ ,  $\text{CHCl}_3$ ). Pharm: Cytotoxic inactive (*in vitro*, BT474, CHAGO, HepG2, Kato3, SW620:  $> 10\mu\text{g/mL}$ ). Source: GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*]. Ref: 5363.

**7123 (3S,5R,6S,7E)-5,6-Epoxy-3-hydroxy-7-megastigmen-9-one**

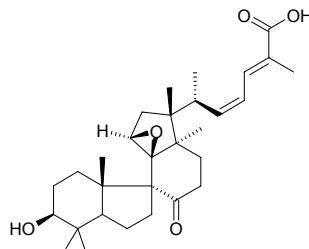
$C_{13}H_{20}O_3$  (224.30). Colorless oil,  $[\alpha]_D^{25} = -43.7^\circ$  ( $c = 0.39$ ,  $\text{CH}_2\text{Cl}_2$ ). Pharm: Phytotoxin (inhibits germination and growth of *Lactuca sativa*). Source: PA KE YE XIANG SHU *Cestrum parqui* (leaf). Ref: 3776.

**7124 12(S)-15,16-Epoxy-19-hydroxy-neo-cleroda-13(16),14-dien-18,6α:20,12-dioidide**

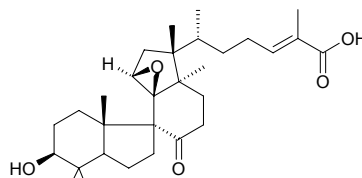
$C_{20}H_{24}O_6$  (360.41). White powder,  $[\alpha]_D^{25} = +26.0^\circ$  ( $c = 0.001$ , MeOH). Source: SHI CAN XIANG KE KE *Teucrium chamaedrys*. Ref: 3431.

**7125 14β,15β-Epoxy-3β-hydroxy-9-oxo-11(10→8)-abeolanosta-22-cis,24-trans-dien-26-oic acid**

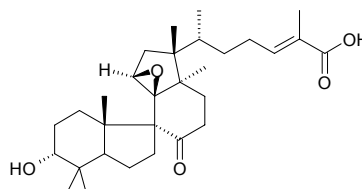
$C_{30}H_{44}O_5$  (484.68). White needles (MeOH), mp  $210^\circ\text{C}$  (dec). Pharm: Cytotoxic (*in vitro*, MCF7,  $GI_{50} = 69.6\mu\text{mol/L}$ ; NCI-H460,  $GI_{50} = 70.3\mu\text{mol/L}$ ; SF268,  $GI_{50} = 95.7\mu\text{mol/L}$ ; control Doxorubicin,  $GI_{50} = 0.043\mu\text{mol/L}$ ; NCI-H460,  $GI_{50} = 0.094\mu\text{mol/L}$ ; SF268,  $GI_{50} = 0.093\mu\text{mol/L}$ ). Source: MEI LI TENG HUANG *Garcinia speciosa* (bark). Ref: 4790.

**7126 14β,15β-Epoxy-3β-hydroxy-9-oxo-11(10→8)-abeolanosta-24-trans-en-26-oic acid**

$C_{30}H_{46}O_5$  (486.7). White needles (MeOH), mp  $205\sim 207^\circ\text{C}$ . Pharm: Cytotoxic (*in vitro*, MCF7,  $GI_{50} = 63.8\mu\text{mol/L}$ ; NCI-H460,  $GI_{50} = 68.6\mu\text{mol/L}$ ; SF268,  $GI_{50} = 86.4\mu\text{mol/L}$ ; control Doxorubicin,  $GI_{50} = 0.043\mu\text{mol/L}$ ; NCI-H460,  $GI_{50} = 0.094\mu\text{mol/L}$ ; SF268,  $GI_{50} = 0.093\mu\text{mol/L}$ ). Source: MEI LI TENG HUANG *Garcinia speciosa* (bark). Ref: 4790.

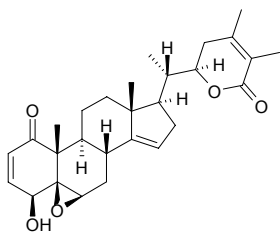
**7127 14β,15β-Epoxy-3α-hydroxy-9-oxo-11(10→8)-abeolanost-24-trans-en-26-oic acid**

$C_{30}H_{46}O_5$  (486.7). Yellowish gum. Source: MEI LI TENG HUANG *Garcinia speciosa* (bark). Ref: 4790.

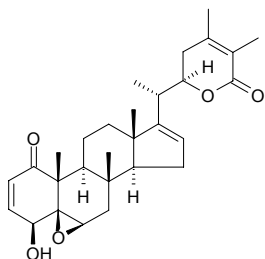


**7128 5 $\beta$ ,6 $\beta$ -Epoxy-4 $\beta$ -hydroxy-1-oxowitha-2,14,24-trienolide**

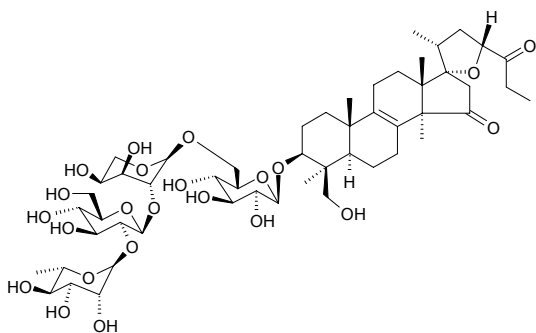
C<sub>28</sub>H<sub>36</sub>O<sub>5</sub> (452.60). **Pharm:** BChE inhibitor (IC<sub>50</sub> = (124.0±1.1)μmol/L, control Galanthamine IC<sub>50</sub> = (0.50±0.001)μmol/L, Eserine IC<sub>50</sub> = (0.04±0.0001)μmol/L); AChE inhibitor (IC<sub>50</sub> = (62.5±2.0)μmol/L, control Galanthamine IC<sub>50</sub> = (8.2±0.01)μmol/L, Eserine IC<sub>50</sub> = (0.85±0.0001)μmol/L). **Source:** CUI MIAN SHUI QIE *Withania somnifera*. **Ref:** 2563.

**7129 5 $\beta$ ,6 $\beta$ -Epoxy-4 $\beta$ -hydroxy-1-oxo-witha-2,16,24-trienolide**

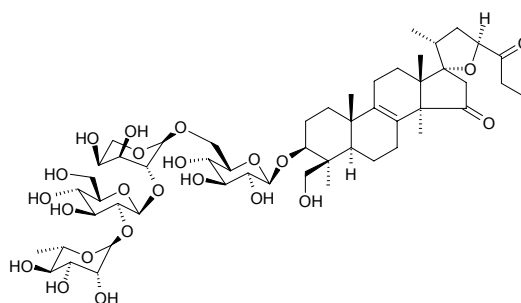
C<sub>28</sub>H<sub>36</sub>O<sub>5</sub> (452.60). mp 268°C, [ $\alpha$ ]<sub>D</sub><sup>30</sup> = +92.60° (c = 0.25, CHCl<sub>3</sub>). **Source:** CUI MIAN SHUI QIE *Withania somnifera* (leaf). **Ref:** 5329.

**7130 (23R)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(O- $\alpha$ -L-rhamnopyranosyl-(1→2)-O- $\beta$ -D-glucopyranosyl-(1→2)-O- $\alpha$ -L-arabinopyranosyl-(1→6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-ene-15,24-dione**

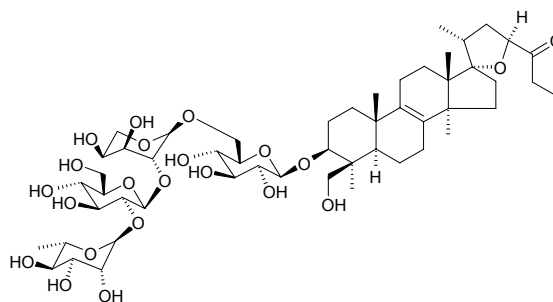
C<sub>52</sub>H<sub>82</sub>O<sub>23</sub> (1075.22). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = -16.0° (c = 0.10, MeOH). **Pharm:** Cytotoxic inactive (*in vitro*, HSC-2, 100μmol/L; control Etoposide, IC<sub>50</sub> = 41μmol/L). **Source:** QI YI PU TAO FENG XIN ZI *Muscari paradoxum* (bulb: yield = 0.00054%fw). **Ref:** 4793.

**7131 (23S)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(O- $\alpha$ -L-rhamnopyranosyl-(1→2)-O- $\beta$ -D-glucopyranosyl-(1→2)-O- $\alpha$ -L-arabinopyranosyl-(1→6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-ene-15,24-dione**

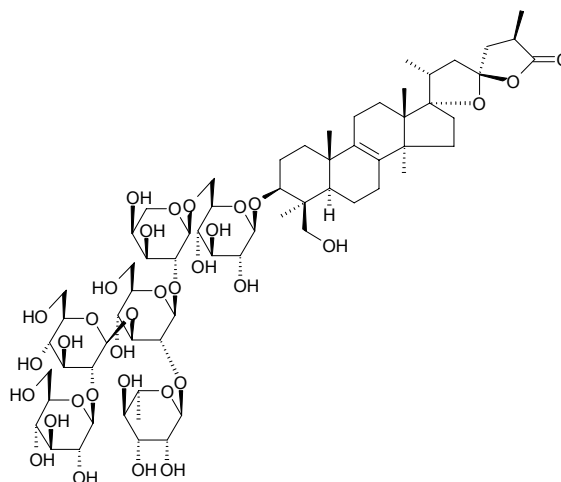
C<sub>52</sub>H<sub>82</sub>O<sub>23</sub> (1075.22). **Pharm:** Cytotoxic (*in vitro*, HSC-2, IC<sub>50</sub> = 63μmol/L; control Etoposide, IC<sub>50</sub> = 41μmol/L). **Source:** QI YI PU TAO FENG XIN ZI *Muscari paradoxum* (bulb: yield = 0.0034%fw). **Ref:** 4793.

**7132 (23S)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(O- $\alpha$ -L-rhamnopyranosyl-(1→2)-O- $\beta$ -D-glucopyranosyl-(1→2)-O- $\alpha$ -L-arabinopyranosyl-(1→6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-en-24-one**

C<sub>52</sub>H<sub>84</sub>O<sub>22</sub> (1061.24). **Pharm:** Cytotoxic (*in vitro*, HSC-2, IC<sub>50</sub> = 32μmol/L; control Etoposide, IC<sub>50</sub> = 41μmol/L). **Source:** QI YI PU TAO FENG XIN ZI *Muscari paradoxum* (bulb: yield = 0.001%fw). **Ref:** 4793.

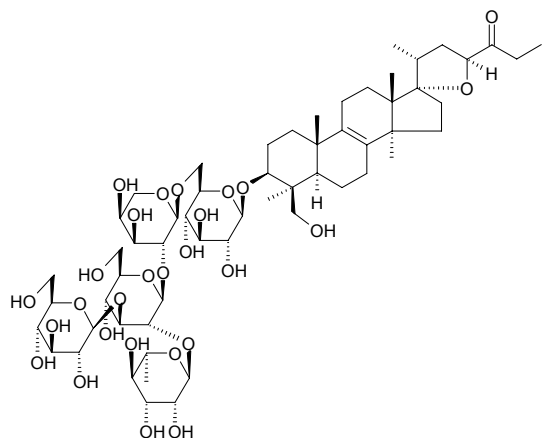
**7133 (23S,25R)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(O- $\alpha$ -L-rhamnopyranosyl-(1→2)-O-[O- $\beta$ -D-glucopyranosyl-(1→2)- $\beta$ -D-glucopyranosyl-(1→3)]- $\beta$ -D-glucopyranosyl-(1→2)- $\alpha$ -L-arabinopyranosyl-(1→6)- $\beta$ -D-glucopyranosyl)oxy]lanost-8-en-23,26-olide**

C<sub>65</sub>H<sub>104</sub>O<sub>33</sub> (1413.53). **Pharm:** Cytotoxic (Hmn oral squamous cell carcinoma cells HSC-2, IC<sub>50</sub> = 14μg/mL, control Etoposide, IC<sub>50</sub> = 24μg/mL). **Source:** XUE GUANG HUA *Chionodoxa luciliae* (fresh bulb). **Ref:** 4308.



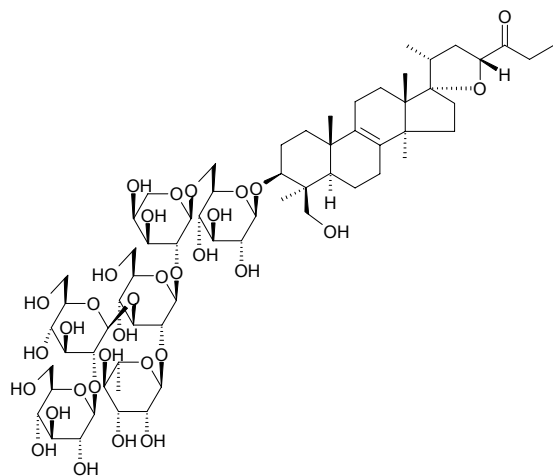
**7134 (23S)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-en-24-one**

C<sub>58</sub>H<sub>94</sub>O<sub>27</sub> (1223.38). **Pharm:** Cytotoxic (Hmn oral squamous cell carcinoma cells HSC-2, IC<sub>50</sub> = 23 $\mu$ g/mL, control Etoposide, IC<sub>50</sub> = 24 $\mu$ g/mL). **Source:** XUE GUANG HUA *Chionodoxa luciliae* (fresh bulb). **Ref:** 4308.



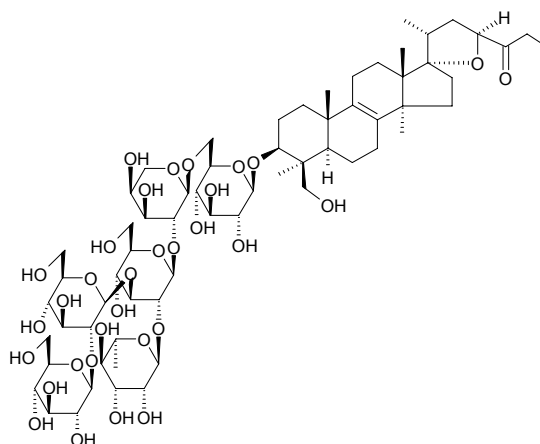
**7135 (23R)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-en-24-one**

C<sub>64</sub>H<sub>104</sub>O<sub>32</sub> (1385.52). **Pharm:** Cytotoxic (Hmn oral squamous cell carcinoma cells HSC-2, IC<sub>50</sub> > 50 $\mu$ g/mL, control Etoposide, IC<sub>50</sub> = 24 $\mu$ g/mL). **Source:** XUE GUANG HUA *Chionodoxa luciliae* (fresh bulb). **Ref:** 4308.



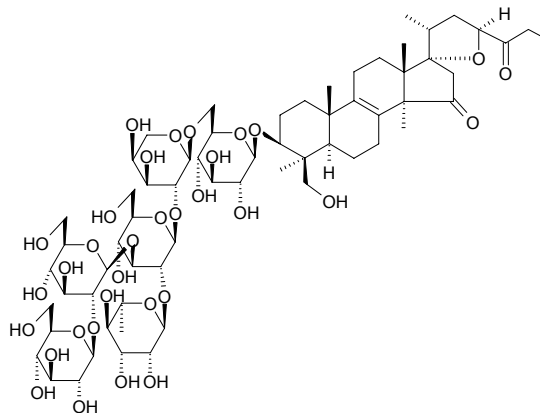
**7136 (23S)-17 $\alpha$ -Epoxy-29-hydroxy-3 $\beta$ -[(*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-en-24-one**

C<sub>64</sub>H<sub>104</sub>O<sub>32</sub> (1385.52). **Pharm:** Cytotoxic (Hmn oral squamous cell carcinoma cells HSC-2, IC<sub>50</sub> = 10 $\mu$ g/mL, control Etoposide, IC<sub>50</sub> = 24 $\mu$ g/mL). **Source:** XUE GUANG HUA *Chionodoxa luciliae* (fresh bulb). **Ref:** 4308.



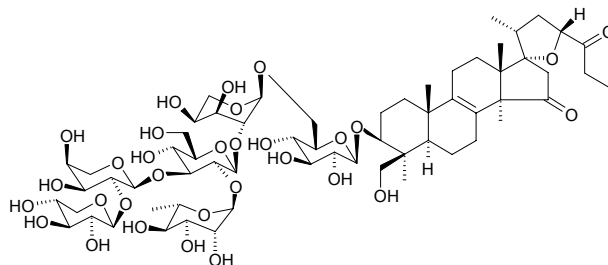
**7137 (23S)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-ene-15,24-dione**

C<sub>64</sub>H<sub>102</sub>O<sub>33</sub> (1399.51). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -18.0° (*c* = 0.1, MeOH). **Pharm:** Cytotoxic (Hmn oral squamous cell carcinoma cells HSC-2, IC<sub>50</sub> > 50 $\mu$ g/mL, control Etoposide, IC<sub>50</sub> = 24 $\mu$ g/mL). **Source:** XUE GUANG HUA *Chionodoxa luciliae* (fresh bulb). **Ref:** 4308.



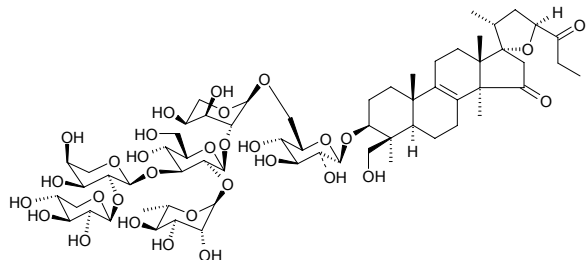
**7138 (23R)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*-[ $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-*O*- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-ene-15,24-dione**

C<sub>62</sub>H<sub>98</sub>O<sub>31</sub> (1339.45). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = -12.0° (*c* = 0.10, MeOH). **Pharm:** Cytotoxic inactive (*in vitro*, HSC-2, 100 $\mu$ mol/L; control Etoposide, IC<sub>50</sub> = 41 $\mu$ mol/L). **Source:** QI YI PU TAO FENG XIN ZI *Muscari paradoxum* (bulb: yield = 0.00094%fw). **Ref:** 4793.



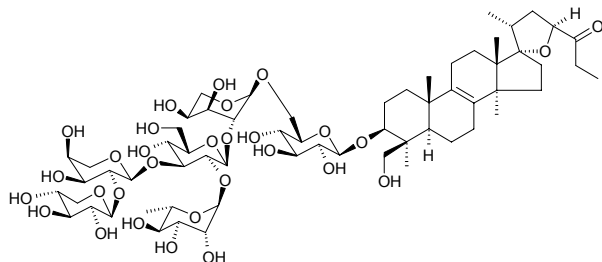
**7139 (23S)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*-[*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-*O*- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-ene-15,24-dione**

C<sub>62</sub>H<sub>98</sub>O<sub>31</sub> (1339.45). Amorphous solid,  $[\alpha]_D^{28} = -22.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HSC-2, IC<sub>50</sub> = 19  $\mu$ mol/L; control Etoposide, IC<sub>50</sub> = 41  $\mu$ mol/L). **Source:** QI YI PU TAO FENG XIN ZI *Muscari paradoxum* (bulb: yield = 0.0051%fw). **Ref:** 4793.



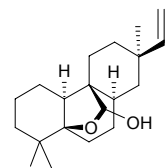
**7140 (23S)-17 $\alpha$ ,23-Epoxy-29-hydroxy-3 $\beta$ -[(*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*-[*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-*O*- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-27-norlanost-8-en-24-one**

C<sub>62</sub>H<sub>100</sub>O<sub>30</sub> (1325.47). Amorphous solid,  $[\alpha]_D^{28} = -54.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HSC-2, IC<sub>50</sub> = 7.3  $\mu$ mol/L; control Etoposide, IC<sub>50</sub> = 41  $\mu$ mol/L). **Source:** QI YI PU TAO FENG XIN ZI *Muscari paradoxum* (bulb: yield = 0.00033%fw). **Ref:** 4793.



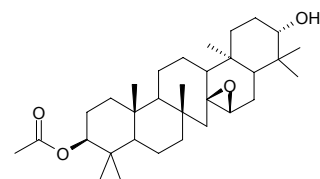
**7141 5 $\beta$ ,20-Epoxy-20-hydroxy-ros-15-ene**

C<sub>20</sub>H<sub>32</sub>O<sub>2</sub> (304.48).  $[\alpha]_D^{20} = +35^\circ$  ( $c = 0.22$ , CHCl<sub>3</sub>). **Source:** *Gackstroemia decipiens*. **Ref:** 3907.



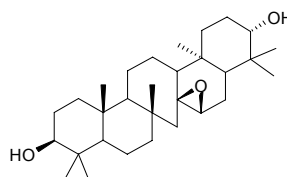
**7142 14 $\beta$ ,15 $\beta$ -Epoxy-3 $\beta$ -hydroxyserratan-21 $\alpha$ -ol-3 $\beta$ -O-acetate**

C<sub>32</sub>H<sub>52</sub>O<sub>4</sub> (500.77). Colorless needles (CHCl<sub>3</sub>), mp 273–276°C,  $[\alpha]_D^{20} = +12.9^\circ$  ( $c = 1.00$ , CHCl<sub>3</sub>). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*]. **Ref:** 5349.



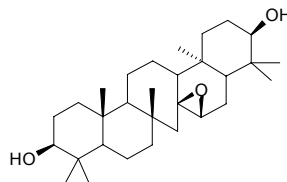
**7143 14 $\beta$ ,15 $\beta$ -Epoxy-3 $\beta$ -hydroxyserratan-21 $\alpha$ -ol**

C<sub>30</sub>H<sub>50</sub>O<sub>3</sub> (458.73). Colorless needles (CHCl<sub>3</sub>-CH<sub>3</sub>OH), mp 280–283°C,  $[\alpha]_D^{20} = +0.2^\circ$  ( $c = 0.44$ , C<sub>5</sub>H<sub>5</sub>N). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*]. **Ref:** 5349.



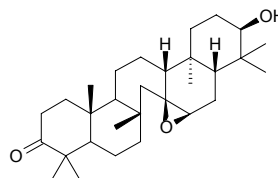
**7144 14 $\beta$ ,15 $\beta$ -Epoxy-3 $\beta$ -hydroxy-serratan-21 $\beta$ -ol**

C<sub>30</sub>H<sub>50</sub>O<sub>3</sub> (458.73). Colorless prisms (CHCl<sub>3</sub>-CH<sub>3</sub>OH), mp 272–274°C,  $[\alpha]_D^{20} = -19.7^\circ$  ( $c = 0.57$ , CHCl<sub>3</sub>). **Source:** QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*]. **Ref:** 5349.



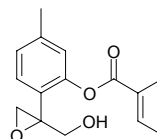
**7145 14 $\beta$ ,15 $\beta$ -Epoxy-21 $\beta$ -hydroxyserratan-3-one**

C<sub>30</sub>H<sub>48</sub>O<sub>3</sub> (456.72). Needles, mp 310–312°C (MeOH-CHCl<sub>3</sub>),  $[\alpha]_D = -14.5^\circ$  ( $c = 0.52$ ). **Source:** RI BEN YU LIN SONG *Picea jezoensis* (cuticle). **Ref:** 3076.



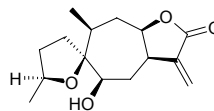
**7146 8,10-Epoxy-9-hydroxy thymol 3-O-tiglate**

C<sub>15</sub>H<sub>18</sub>O<sub>4</sub> (262.31).  $[\alpha]_D^{23} = -32.0^\circ$  ( $c = 1.1$ , CHCl<sub>3</sub>). **Source:** PEI LAN *Eupatorium fortunei* (aerial parts). **Ref:** 3077.



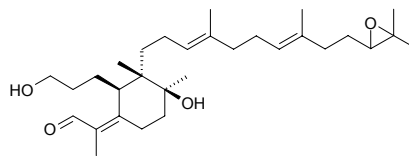
**7147 1 $\beta$ ,4 $\beta$ -Epoxy-5 $\beta$ -hydroxy-10 $\alpha$ H-xantha-11(13)-en-12,8 $\beta$ -olide**

C<sub>15</sub>H<sub>22</sub>O<sub>4</sub> (266.34). Colorless gum,  $[\alpha]_D^{20} = +23.0^\circ$  ( $c = 0.71$ , CHCl<sub>3</sub>). **Source:** CHANG YE TIAN MING JING *Carpesium longifolium* (aerial parts: yield = 0.0009%dw). **Ref:** 4736.



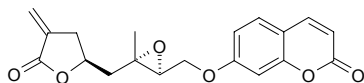
**7148 22,23-Epoxyiridal**

C<sub>30</sub>H<sub>50</sub>O<sub>4</sub> (474.73). **Source:** SHI GUAN YUAN WEI *Iris cristata*. **Ref:** 2417.

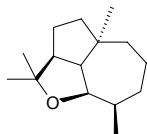


**7149 2',3'-Epoxyisocapnolactone**

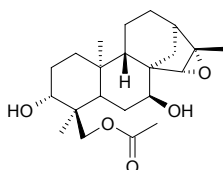
$C_{19}H_{18}O_6$  (342.35). White needles, mp 103~105°C. Source: JI XIAO XIAO YUN XIANG MU *Micromelum minutum* (leaf). Ref: 3467.

**7150 (+)-6,11-Epoxy-isodaucane**

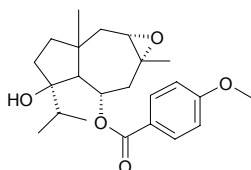
$C_{15}H_{26}O$  (222.37). Colorless oil. Source: *Tritomaria polita* (essential oil). Ref: 3446.

**7151 Epoxyisolinearol**

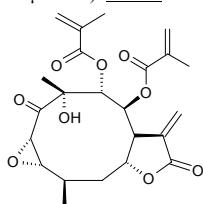
$C_{22}H_{34}O_5$  (378.51). Colorless needles ( $CHCl_3$ ). Source: *Sideritis ozturkii* (aerial parts). Ref: 3827.

**7152 2,3-Epoxy-jaeschkeanadiol p-methoxybenzoate**

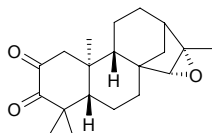
$C_{23}H_{32}O_5$  (388.51). Source: YI LANG A WEI *Ferula kuhistanica* (stem). Ref: 3977.

**7153 2,3-Epoxyjuanislinamin**

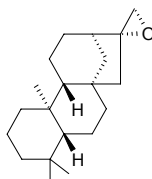
$C_{23}H_{28}O_9$  (448.47). White powder,  $[\alpha]_D^{20} = +154.0^\circ$  ( $c = 0.001$ ,  $CHCl_3$ ). Pharm: Cytotoxic (U937,  $IC_{50} = 1.8\mu mol/L$ ; control Parthenolide,  $IC_{50} = 1.9\mu mol/L$ ). Source: YOU KA MEI JU *Calea urticifolia* (leaf). Ref: 3887.

**7154 ent-15,16-Epoxy-kauran-2,3-dione**

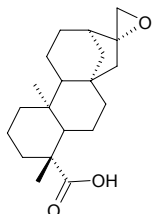
Oryzadione  $C_{20}H_{28}O_3$  (316.44). Colorless needle crystals, mp 138°C,  $[\alpha]_D^{24} = -13^\circ$  ( $c = 0.21$ , MeOH). Pharm: Antibacterial (inhibits colony formation of *X. campestris* pv. *oryzae*, 200mg/L, InRt = 40%). Source: DAO CAO *Oryza sativa* (leaf). Ref: 3814.

**7155 ent-16β,17-Epoxy-kaurane**

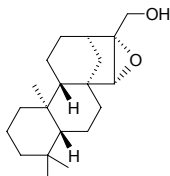
$C_{20}H_{32}O$  (288.48). mp 174.0~176.5°C,  $[\alpha]_D^{17} = -45.9^\circ$  ( $c = 0.18$ ,  $CHCl_3$ ). Source: ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. Ref: 2182.

**7156 (-)-16β,17-Epoxykauran-19-oic acid**

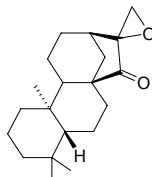
$C_{20}H_{30}O_3$  (318.46). White solid, mp 154~156°C,  $[\alpha]_D^{20} = -98.4^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Pharm:  $Na^+, K^+$ -ATP inhibitor (crude enzyme  $Na^+, K^+$ -ATPase from rat brain,  $IC_{50} = 480\mu mol/L$ ). Source: GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*] (semi-synthetic derivative). Ref: 5404.

**7157 ent-15β,16-Epoxy-kauran-17-ol**

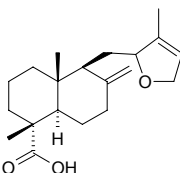
$C_{20}H_{32}O_2$  (304.48). mp 160°C,  $[\alpha]_D^{20} = +9.4^\circ$  ( $c = 1.5$ ,  $CHCl_3$ ). Source: ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. Ref: 2182.

**7158 ent-16,17-Epoxykauran-15-one**

$C_{20}H_{30}O_2$  (302.46). Oil,  $[\alpha]_D^{23} = -109.0^\circ$  ( $c = 0.28$ ). Source: JIE XING YE TAI *Jungermannia truncata*. Ref: 4201.

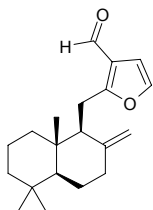
**7159 12,15-Epoxy-8(17),13-labdadien-18-oic acid**

$C_{20}H_{30}O_3$  (318.46). Amorphous,  $[\alpha]_D^{27} = +37.6^\circ$  ( $c = 0.19$ ,  $CHCl_3$ ). Source: TAI WAN SHAN MU *Cunninghamia konishii* (wood). Ref: 4176.

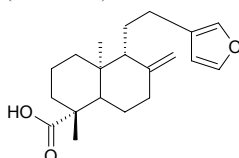


**7160 12,15-Epoxyabda-8(17),12,14-trien-16-al**

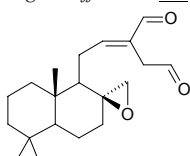
$C_{20}H_{28}O_2$  (300.44). Orange oil,  $[\alpha]_D^{20} = +50.5^\circ$  ( $c = 0.42$ ,  $CHCl_3$ ). Source: *Turraanthus africanus* (seed). Ref: 3884.

**7161 15,16-Epoxy-8(17),13(16),14-ent-labdatrien-19-oic acid**

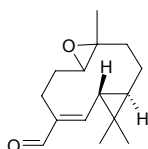
Daniellic acid  $C_{20}H_{28}O_3$  (316.44). Pharm: Angicidal (inhibits growth of alga *Raphidocelis subcapitata*, 72h  $IC_{50} = 17.2\mu\text{mol/L}$ ). Source: AO SHI DAN NI SU MU *Daniellia oliveri*, BI CHI YAN ZI CAI *Potamogeton pectinatus* (whole herb). Ref: 3488.

**7162 (E)-8β,17-Epoxyabd-12-ene-15,16-dial**

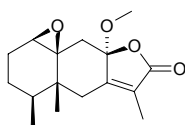
$C_{20}H_{30}O_3$  (318.46). Source: GAN JIANG *Zingiber officinale*, SHENG JIANG *Zingiber officinale*. Ref: 2.

**7163 1,10-Epoxyepidozenal**

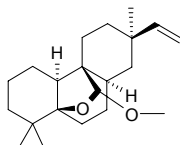
$C_{15}H_{22}O_2$  (234.34). Source: MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00031%dw). Ref: 3026.

**7164 1β,10β-Epoxy-8α-methoxyeremophil-7(11)-en-12,8β-olide**

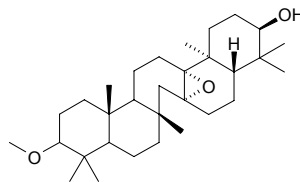
$C_{16}H_{22}O_4$  (278.35). Colorless crystals, mp 102–103°C (hexane),  $[\alpha]_D = -87.5^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: HUANG SE QIAN LI GUANG *Senecio flavus*. Ref: 2409.

**7165 5β,20-Epoxy-20-methoxy-ros-15-ene**

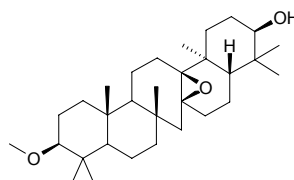
$C_{21}H_{34}O_2$  (318.50).  $[\alpha]_D^{20} = +33^\circ$  ( $c = 0.12$ ,  $CHCl_3$ ). Source: *Gackstroemia decipiens*. Ref: 3907.

**7166 13α,14α-Epoxy-3β-methoxyserratan-21β-ol**

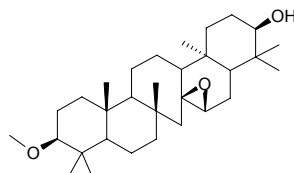
$C_{31}H_{52}O_3$  (472.76). Prisms, mp 242–244°C (MeOH– $CHCl_3$ ),  $[\alpha]_D = +31^\circ$  ( $c = 0.38$ ). Source: RI BEN YU LIN SONG *Picea jezoensis* (cuticle). Ref: 3076.

**7167 13β,14β-Epoxy-3β-methoxyserratan-21β-ol**

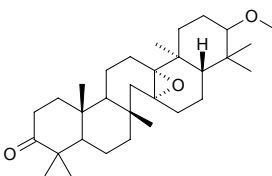
$C_{31}H_{52}O_3$  (472.76). Colorless prisms, mp 264–267°C,  $[\alpha]_D^{23.5} = +4.7^\circ$  ( $c = 0.11$ ,  $CHCl_3$ ). Pharm: Antineoplastic promoter (mouse skin carcinogenesis, TPA-induced EBV-EA activation assay, compound concentration (mol ratio/32 pmol TPA) = 500, EBV-EA viability = 25.7%,  $IC_{50}$ (mol ratio/32 pmol TPA) = 288; control Oleonic acid, compound concentration (mol ratio/32 pmol TPA) = 500, EBV-EA viability = 30.0%,  $IC_{50}$ (mol ratio/32 pmol TPA) = 360). Source: YU LIN YUN SHAN *Picea jezoensis* var. *jezoensis* (stem cortex). Ref: 5477.

**7168 14β,15β-Epoxy-3β-methoxyserratan-21β-ol**

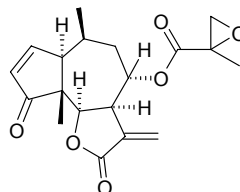
$C_{31}H_{52}O_3$  (472.76). Source: QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*]. Ref: 5349.

**7169 13α,14α-Epoxy-21α-methoxyserratan-3-one**

$C_{31}H_{50}O_3$  (470.74). Prisms, mp 219–222°C (MeOH– $CHCl_3$ ),  $[\alpha]_D = -98^\circ$  ( $c = 0.83$ ). Source: RI BEN YU LIN SONG *Picea jezoensis* (cuticle). Ref: 3076.

**7170 8α-Epoxyethylacrylyloxyambrosin**

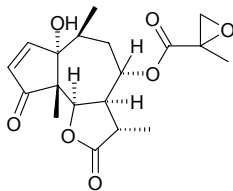
[219319-63-8]  $C_{19}H_{22}O_6$  (346.38). Source: YIN JIAO JU *Parthenium hysterophorus*. Ref: 2393.



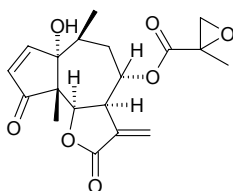


**7171 8 $\alpha$ -Epoxyethylacryloyloxy-11,13-dihydroparthenin**

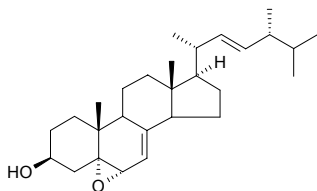
[219319-61-6] C<sub>19</sub>H<sub>24</sub>O<sub>7</sub> (364.40). Non-crystalline. Source: YIN JIAO JU *Parthenium hysterophorus*. Ref: 2393.

**7172 8 $\alpha$ -Epoxyethylacryloyloxyparthenin**

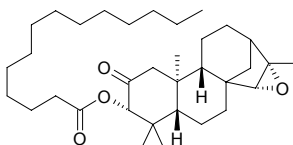
[219319-59-2] C<sub>19</sub>H<sub>22</sub>O<sub>7</sub> (362.38). Non-crystalline. Source: YIN JIAO JU *Parthenium hysterophorus*. Ref: 2393.

**7173 5,6-Epoxy-24(R)-methylcholesta-7,22-dien-3 $\beta$ -ol**

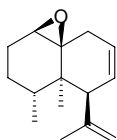
[23637-31-2] C<sub>28</sub>H<sub>44</sub>O<sub>2</sub> (412.66). Source: DONG CHONG XIA CAO *Cordyceps sinensis*. Ref: 2322.

**7174 ent-15,16-Epoxy-3 $\beta$ -myristoyloxy-kauran-2-one**

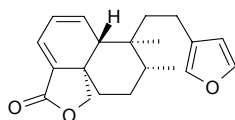
C<sub>34</sub>H<sub>56</sub>O<sub>4</sub> (528.82). Amorphous, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -33° (*c* = 0.41, MeOH). Pharm: Antibacterial (inhibits colony formation of *X. campestris* pv. *oryzae*, 500mg/L, InRt = 30%). Source: DAO CAO *Oryza sativa* (leaf). Ref: 3814.

**7175 1 $\beta$ ,10 $\beta$ -Epoxy-nardosin-7,11-diene**

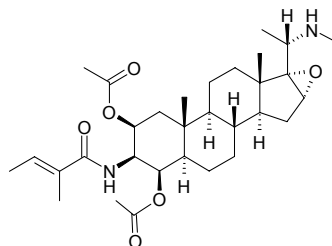
C<sub>15</sub>H<sub>22</sub>O (218.34). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +195° (*c* = 0.61, CHCl<sub>3</sub>). Source: *Gackstroemia decipiens*. Ref: 3907.

**7176 15,16-Epoxy-neo-clerodan-1,3,13(16),14-tetraen-18,19-olide**

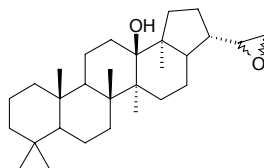
C<sub>20</sub>H<sub>24</sub>O<sub>3</sub> (312.41). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +6.1° (*c* = 0.26, CHCl<sub>3</sub>). Source: SHAN XING KUO BAO JU *Baccharis flabellata*. Ref: 1921.

**7177 Epoxyneepakistamine A**

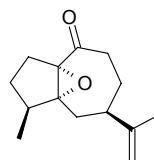
(20*S*)-20-(*N*-Methylamino)-3 $\beta$ -(tigloylamino)-5 $\alpha$ -pregna-16 $\alpha$ ,17 $\alpha$ -epoxy-2 $\beta$ ,4 $\beta$ -di-*O*-acetate C<sub>31</sub>H<sub>48</sub>N<sub>2</sub>O<sub>6</sub> (544.74). Colorless crystalline solid (CHCl<sub>3</sub>), mp 119~120°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +14° (*c* = 0.07, CHCl<sub>3</sub>). Pharm: BChE inhibitor (horse serum BChE, IC<sub>50</sub> = (77.4±0.024) $\mu$ mol/L, control Eserine IC<sub>50</sub> = (0.857±0.008) $\mu$ mol/L); AChE inhibitor (electric eel AChE, IC<sub>50</sub> > 200 $\mu$ mol/L, control Eserine IC<sub>50</sub> = (0.041±0.001) $\mu$ mol/L). Source: YUN NAN YE SHAN HUA *Sarcococca coriacea* [Syn. *Sarcococca wallichii*] (leaf). Ref: 4241.

**7178 22,29 $\xi$ -Epoxy-30-norhopane-13 $\beta$ -ol**

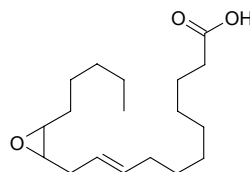
C<sub>29</sub>H<sub>48</sub>O<sub>2</sub> (428.70). Colorless solid, mp 264~266°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +15.10° (*c* = 0.25, CHCl<sub>3</sub>). Pharm: Antibacterial (*Salmonella typhimurium*, 100 $\mu$ g/disk, IZD = 9mm, control Kanamycin, 30 $\mu$ g/disk, IZD = 14mm; *Bacillus subtilis*, 100 $\mu$ g/disk, IZD = 8mm, Kanamycin, 30 $\mu$ g/disk, IZD = 31mm). Source: BAN YUE XING TIE XIAN JUE *Adiantum lunulatum*. Ref: 5124.

**7179 (+)-1,5-Epoxy-nor-ketoguaia-11-ene**

C<sub>14</sub>H<sub>20</sub>O<sub>2</sub> (220.31). Source: CHEN XIANG *Aquilaria agallocha*. Ref: 13.

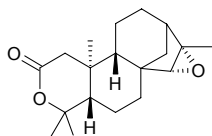
**7180 ( $\pm$ )-12,13-Epoxyoleic acid**

C<sub>18</sub>H<sub>32</sub>O<sub>3</sub> (296.45). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = 0° (*c* = 0.5, CHCl<sub>3</sub>). Pharm: COX-1 inhibitor (100 $\mu$ g/mL, InRt = 30%, control *trans*-Resveratrol, IC<sub>50</sub> = 0.25 $\mu$ g/mL); COX-2 inhibitor (100 $\mu$ g/mL, InRt = 58%, control *trans*-Resveratrol, IC<sub>50</sub> = 0.30 $\mu$ g/mL). Source: LIAN YE TONG *Hernandia Sonora* [Syn. *Hernandia ovigera*] (seed). Ref: 5030.

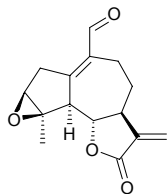


**7181 ent-15,16-Epoxy-3-oxa-kauran-2-one**

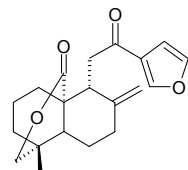
$C_{19}H_{28}O_3$  (304.43). Colorless needle crystals, mp 183°C,  $[\alpha]_D^{24} = -54^\circ$  ( $c = 0.05$ , MeOH). **Pharm:** Antibacterial (inhibits colony formation of *X. campestris* pv. *oryzae*, 210mg/L, InRt = 45%). **Source:** DAO CAO *Oryza sativa* (leaf). **Ref:** 3814.

**7182 5aH-3β,4β-Epoxy-14-oxo-guaia-1(10),11(13)-dien-6α,12-olide**

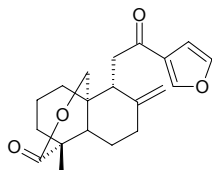
$C_{15}H_{16}O_4$  (260.29). Colorless gum,  $[\alpha]_D^{20} = +9.4^\circ$  ( $c = 0.1$ , EtOH). **Pharm:** Cytotoxic (KB ATCC CCL17,  $IC_{50} = 3.5\mu\text{g/mL}$ ). **Source:** *Warionia saharae*. **Ref:** 5399.

**7183 15,16-Epoxy-12-oxo-8(17),13(16),14-ent-labdatrien-20,19-olide**

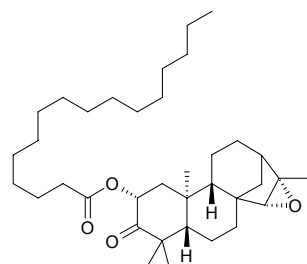
$C_{20}H_{24}O_4$  (328.41). Colorless oil,  $[\alpha]_D^{25} = +22.5^\circ$  ( $c = 0.43$ ,  $\text{CHCl}_3$ ). **Source:** FU YE YAN ZI CAI *Potamogeton natans*. **Ref:** 5184.

**7184 15,16-Epoxy-12-oxo-8(17),13(16),14-ent-labdatrien-19,20-olide**

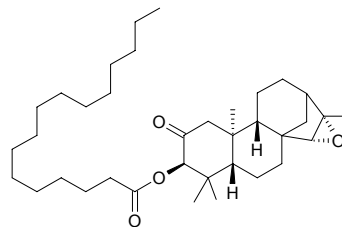
$C_{20}H_{24}O_4$  (328.41). Colorless oil,  $[\alpha]_D^{25} = +65.3^\circ$  ( $c = 0.04$ ,  $\text{CHCl}_3$ ). **Source:** FU YE YAN ZI CAI *Potamogeton natans*. **Ref:** 5184.

**7185 ent-15,16-Epoxy-2β-palmitoyloxy-kauran-2-one**

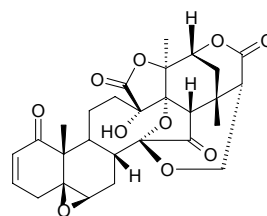
$C_{36}H_{60}O_4$  (556.88). Amorphous,  $[\alpha]_D^{24} = -67^\circ$  ( $c = 0.34$ , MeOH). **Pharm:** Antibacterial (inhibits colony formation of *X. campestris* pv. *oryzae*, 500mg/L, InRt = 45%). **Source:** DAO CAO *Oryza sativa* (leaf). **Ref:** 3814.

**7186 ent-15,16-Epoxy-3α-palmitoyloxy-kauran-2-one**

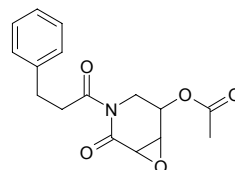
$C_{36}H_{60}O_4$  (556.88). Amorphous,  $[\alpha]_D^{24} = -17^\circ$  ( $c = 0.14$ , MeOH). **Source:** DAO CAO *Oryza sativa* (leaf). **Ref:** 3814.

**7187 5β,6β-Epoxyphysalin B**

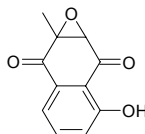
$C_{28}H_{30}O_{10}$  (526.55). **Source:** TIAN PAO ZI *Physalis minima*. **Ref:** 6.

**7188 3α,4α-Epoxy-5β-pipermethystine**

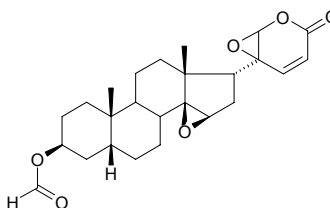
$C_{16}H_{17}NO_5$  (303.32). Colorless needles (hexane), mp 59°C,  $[\alpha]_D^{22} = -98.8^\circ$  ( $c = 0.5$ ,  $\text{Me}_2\text{CO}$ ). **Source:** KA WA HU JIAO *Piper methysticum*. **Ref:** 3373.

**7189 2,3-Epoxyplumbagin**

$C_{11}H_8O_4$  (204.18). Pale yellow needles (hexane), mp 92~93°C, 95~96°C,  $[\alpha]_D^{28} = -4.51^\circ$  ( $c = 2.41$ ,  $\text{CHCl}_3$ ). **Pharm:** Ichthyotoxin (MLC = 3.0mg/L, control Juglone, MLC = 0.2mg/L). **Source:** HAI SHI *Diospyros maritima* (fruit). **Ref:** 4185.

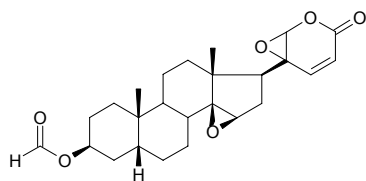
**7190 20R,21-Epoxyresibufogenin 3-formate**

$C_{25}H_{32}O_6$  (428.53). Colorless needles, mp 147~150°C,  $[\alpha]_D^{19} = -11.5^\circ$  ( $c = 0.1$ ,  $\text{CHCl}_3$ ). **Pharm:** Cytotoxic (*in vitro*, KB,  $IC_{50} > 25\mu\text{g/mL}$ ; MH-60,  $IC_{50} > 25\mu\text{g/mL}$ ). **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus* (dried secretion of skin glands: yield = 0.00082%dw). **Ref:** 4634.

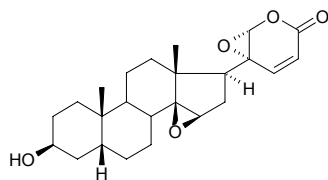


**7191 20S,21-Epoxyresibufogenin 3-formate**

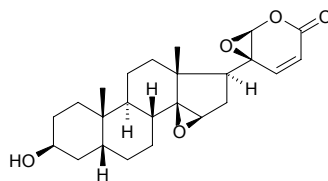
$C_{25}H_{32}O_6$  (428.53). Colorless needles, mp 180–182°C,  $[\alpha]_D^{19} = +17.2^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (*in vitro*, KB,  $IC_{50} > 25\mu g/mL$ ; MH-60,  $IC_{50} > 25\mu g/mL$ ). **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus* (dried secretion of skin glands; yield = 0.0022%dw). **Ref:** 4634.

**7192 20R,21-Epoxyresibufogenin**

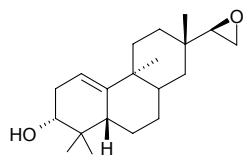
$C_{24}H_{32}O_5$  (400.52). Colorless needles, mp 90–94°C,  $[\alpha]_D^{19} = -17.0^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (*in vitro*, KB,  $IC_{50} = 8.09\mu g/mL$ ; MH-60,  $IC_{50} = 1.8\mu g/mL$ ). **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus* (dried secretion of skin glands; yield = 0.031%dw). **Ref:** 4634.

**7193 20S,21-Epoxyresibufogenin**

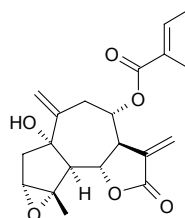
$C_{24}H_{32}O_5$  (400.52). Colorless plates, mp 184–186°C,  $[\alpha]_D^{18} = +18.2^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (*in vitro*, KB,  $IC_{50} = 10.88\mu g/mL$ ; MH-60,  $IC_{50} = 1.82\mu g/mL$ ). **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus* (dried secretion of skin glands; yield = 0.044%dw). **Ref:** 4634.

**7194 (3R,15R)-ent-15,16-Epoxy-1(10)-rosen-3-ol**

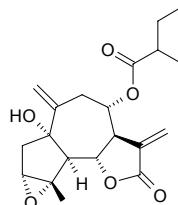
$C_{20}H_{32}O_2$  (304.48).  $[\alpha]_D^{20} = -4.9^\circ$  ( $c = 0.78$ ,  $CHCl_3$ ). **Source:** *Heteroscyphus billardieri*, *Plagiochila deltoidea*. **Ref:** 4284.

**7195 3a,4a-Epoxyrupicolin C**

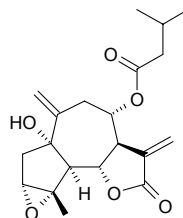
8-Angeloyloxy-1 $\alpha$ -hydroxy-3 $\alpha$ ,4 $\alpha$ -epoxy-5 $\alpha$ ,7 $\alpha$ H-10(14),11(13)-guaiaadien-12,6 $\alpha$ -olide  $C_{20}H_{24}O_6$  (360.41). White amorphous powder, mp 88–89°C,  $[\alpha]_D^{25} = -5.83^\circ$  ( $c = 0.03$ , MeOH). **Pharm:** Anti-inflammatory (RAW264.7 cells, LPS-induced: NF- $\kappa$ B inhibitor,  $IC_{50} = (0.89\pm 0.02)\mu mol/L$ , control PTN,  $IC_{50} = (3.42\pm 0.08)\mu mol/L$ ; NO production inhibitor,  $IC_{50} = (2.34\pm 0.05)\mu mol/L$ , PTN,  $IC_{50} = (2.41\pm 0.06)\mu mol/L$ , AG,  $IC_{50} = (34.18\pm 0.98)\mu mol/L$ ; TNF- $\alpha$  production inhibitor,  $IC_{50} = (7.58\pm 0.22)\mu mol/L$ , PTN,  $IC_{50} = (2.68\pm 0.11)\mu mol/L$ ). **Source:** LIN DI HAO *Artemisia sylvatica* (aerial parts). **Ref:** 3837.

**7196 3a,4a-Epoxyrupicolin D**

8 $\alpha$ -Methylbutyryloxy-1 $\alpha$ -hydroxy-3 $\alpha$ ,4 $\alpha$ -epoxy-5 $\alpha$ ,7 $\alpha$ H-10(14),11(13)-guaiaadien-12,6 $\alpha$ -olide  $C_{20}H_{26}O_6$  (362.43). White needles, mp 118–119°C,  $[\alpha]_D^{25} = -10.22^\circ$  ( $c = 0.01$ , MeOH). **Pharm:** Anti-inflammatory (RAW264.7 cells, LPS-induced: NF- $\kappa$ B inhibitor,  $IC_{50} = (2.73\pm 0.01)\mu mol/L$ , control PTN,  $IC_{50} = (3.42\pm 0.08)\mu mol/L$ ; NO production inhibitor,  $IC_{50} = (6.16\pm 0.12)\mu mol/L$ , PTN,  $IC_{50} = (2.41\pm 0.06)\mu mol/L$ , AG,  $IC_{50} = (34.18\pm 0.98)\mu mol/L$ ; TNF- $\alpha$  production inhibitor,  $IC_{50} = (9.86\pm 0.31)\mu mol/L$ , PTN,  $IC_{50} = (2.68\pm 0.11)\mu mol/L$ ). **Source:** LIN DI HAO *Artemisia sylvatica* (aerial parts). **Ref:** 3837.

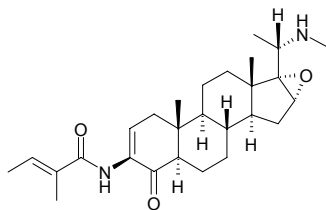
**7197 3a,4a-Epoxyrupicolin E**

8 $\alpha$ -Sovaleryloxy-1 $\alpha$ -hydroxy-3 $\alpha$ ,4 $\alpha$ -epoxy-5 $\alpha$ ,7 $\alpha$ H-10(14),11(13)-guaiaadien-12,6 $\alpha$ -olide  $C_{20}H_{26}O_6$  (362.43). White needles, mp 117–118°C,  $[\alpha]_D^{25} = -21.55^\circ$  ( $c = 0.01$ , MeOH). **Pharm:** Anti-inflammatory (RAW264.7 cells, LPS-induced: NF- $\kappa$ B inhibitor,  $IC_{50} = (2.68\pm 0.06)\mu mol/L$ , control PTN,  $IC_{50} = (3.42\pm 0.08)\mu mol/L$ ; NO production inhibitor,  $IC_{50} = (5.52\pm 0.15)\mu mol/L$ , PTN,  $IC_{50} = (2.41\pm 0.06)\mu mol/L$ , AG,  $IC_{50} = (34.18\pm 0.98)\mu mol/L$ ; TNF- $\alpha$  production inhibitor,  $IC_{50} = (8.86\pm 0.70)\mu mol/L$ , PTN,  $IC_{50} = (2.68\pm 0.11)\mu mol/L$ ). **Source:** LIN DI HAO *Artemisia sylvatica* (aerial parts). **Ref:** 3837.

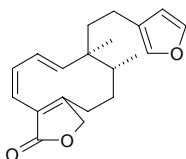


**7198 Epoxysarcovagenine D**

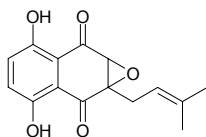
(20S)-20-(N-Methylamino)-3 $\beta$ -(tigloylamino)-5 $\alpha$ -pregna-2-en-16 $\alpha$ ,17 $\alpha$ -epoxy-4-one C<sub>27</sub>H<sub>40</sub>N<sub>2</sub>O<sub>3</sub> (440.63). Yellowish amorphous solid (CHCl<sub>3</sub>), mp 119–120 °C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +24° (c = 0.116, CHCl<sub>3</sub>). Source: YUN NAN YE SHAN HUA *Sarcococca coriacea* [Syn. *Sarcococca wallichii*] (leaf). Ref: 4241.

**7199 15,16-Epoxy-5,10-seco-clerodan-1(10),2,4,13(16),14-pentaen-18,19-olide**

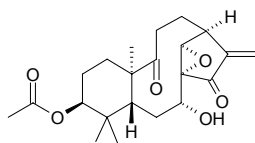
C<sub>20</sub>H<sub>24</sub>O<sub>3</sub> (312.41). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = –135.7° (c = 0.28, CHCl<sub>3</sub>). Source: SHAN XING KUO BAO JU *Baccharis flabellata*. Ref: 1921.

**7200 2,3-Epoxy sesamone**

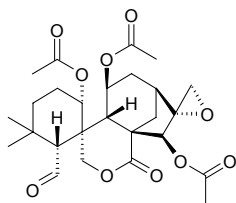
C<sub>15</sub>H<sub>14</sub>O<sub>5</sub> (274.28). Pale yellow crystals (MeOH), mp 85–86°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –43° (c = 0.34, CHCl<sub>3</sub>). Pharm: Antifungal (*Cladosporium fulvum*, 10 $\mu$ g/spot)<sup>[5234]</sup>. Source: HU MA GEN *Sesamum indicum*. Ref: 5234.

**7201 Epoxyshikoccin**

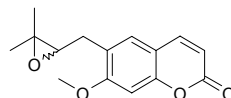
C<sub>22</sub>H<sub>30</sub>O<sub>6</sub> (390.48). mp 124–126°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –6.3° (c = 0.35, MeOH). Source: XI SI GUO XIANG CHA CAI *Isodon shikokiana* var. *occidentalis*. Ref: 4067.

**7202 16,17-Epoxyshikokianal acetate**

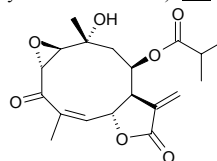
C<sub>26</sub>H<sub>34</sub>O<sub>10</sub> (506.55). mp 205.0–206.5°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +66° (c = 0.32, CHCl<sub>3</sub>). Source: SI GUO XIANG CHA CAI *Rabdosia shikokiana*. Ref: 4067.

**7203 Epoxysuberosin**

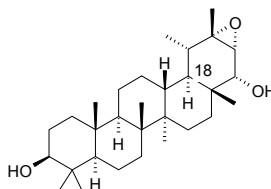
C<sub>15</sub>H<sub>16</sub>O<sub>4</sub> (260.29). Pharm: Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500mol ratio/32 pmol TPA: EBV-EA-positive cells = (19.9 $\pm$ 1.2)% (viability > 80%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3 $\pm$ 1.1)% (viability > 80%), Curcumin, EBV-EA-positive cells = (22.8 $\pm$ 1.8)% (viability > 80%), compound IC<sub>50</sub> = 208mol ratio/32 pmol TPA,  $\beta$ -Carotene, IC<sub>50</sub> = 400mol ratio/32 pmol TPA, Curcumin, IC<sub>50</sub> = 341mol ratio/32 pmol TPA). Source: *Citrus tamurana*. Ref: 5048.

**7204 1 $\beta$ ,2 $\alpha$ -Epoxytagitinin C**

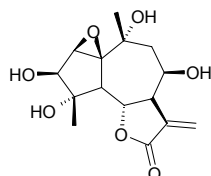
C<sub>19</sub>H<sub>24</sub>O<sub>7</sub> (364.4). Pharm: Cytotoxic (antiproliferative, Col2 cells, IC<sub>50</sub> = 1.7 $\mu$ g/mL); cytotoxic (cellular differentiation inducer, hmn promyelocytic leukemia HL-60 cells, 4 $\mu$ g/mL, activity denotes percentage of cells differentiated < 10%); cytotoxic (MMOC model, inhibits DMBA-induced preneoplastic lesion formation, 10 $\mu$ g/mL, rel-InRt = 44.4%, control DMBA, rel-InRt = 100%). Source: ZHONG BIN JU *Tithonia diversifolia* (aerial parts: yield = 0.0013%dw). Ref: 4622.

**7205 20 $\alpha$ ,21 $\alpha$ -Epoxy-taraxastane-3 $\beta$ ,22 $\alpha$ -diol**

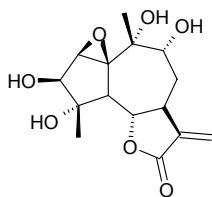
C<sub>30</sub>H<sub>50</sub>O<sub>3</sub> (458.73). Colorless crystals, mp 223–224°C (CHCl<sub>3</sub>–MeOH), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +121° (c = 0.56, CHCl<sub>3</sub>). Pharm: Cytotoxic (SMMC-7721, IC<sub>50</sub> = (113.6 $\pm$ 4.3) $\mu$ g/mL, control Vincristine, IC<sub>50</sub> = (63.2 $\pm$ 1.8) $\mu$ g/mL; B16, IC<sub>50</sub> = (51.4 $\pm$ 3.7) $\mu$ g/mL, Vincristine, IC<sub>50</sub> = (70.7 $\pm$ 2.8) $\mu$ g/mL; HeLa, IC<sub>50</sub> = (88.7 $\pm$ 6.0) $\mu$ g/mL, Vincristine, IC<sub>50</sub> = (67.2 $\pm$ 2.2) $\mu$ g/mL); antibacterial (*Bacillus subtilis*, IZD = (13.9 $\pm$ 0.8)mm, control Chloramphenicol, IZD = (14.5 $\pm$ 1.1)mm; *Escherichia coli*, IZD = (14.1 $\pm$ 2.9)mm, Chloramphenicol, IZD = (14.9 $\pm$ 1.3)mm; *Staphylococcus aureus*, IZD = (10.5 $\pm$ 2.1)mm, Chloramphenicol, IZD = (15.1 $\pm$ 1.2)mm). Source: *Saussurea petrovii* (whole herb). Ref: 5219.

**7206 1 $\beta$ ,2 $\beta$ -Epoxy-3 $\beta$ ,4 $\alpha$ ,8 $\beta$ ,10 $\alpha$ -tetrahydroguaia-11(13)-en-12,6 $\alpha$ -olide**

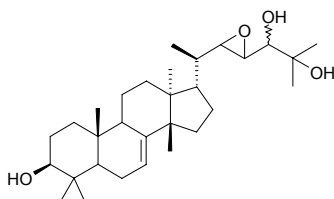
C<sub>15</sub>H<sub>20</sub>O<sub>7</sub> (312.32). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +31° (c = 0.12, MeOH). Pharm: Antifungal (*Candida albicans*, MIC = 20 $\mu$ g/mL)<sup>[5222]</sup>. Source: GUAN MU YA JU *Ajania fruticulosa* (aerial parts). Ref: 5222.



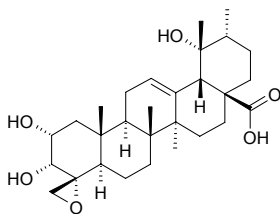
**7207 1 $\beta$ ,2 $\beta$ -Epoxy-3 $\beta$ ,4 $\alpha$ ,9 $\alpha$ ,10 $\alpha$ -tetrahydroxyguaia-11(13)-en-12,6 $\alpha$ -olide**  
 C<sub>15</sub>H<sub>20</sub>O<sub>7</sub> (312.32). Colorless gum,  $[\alpha]_D^{20} = +18^\circ$  ( $c = 0.10$ , MeOH). **Pharm:**  
 Antifungal (*Candida albicans*, MIC = 20 $\mu$ g/mL). **Source:** GUAN MU YA JU  
*Ajania fruticulosa* (aerial parts). **Ref:** 5222.



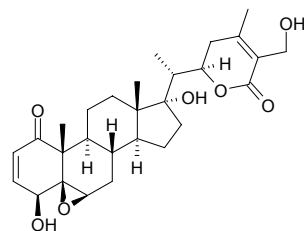
**7208 22,23-Epoxy-tirucalla-7-ene-3 $\beta$ ,24,25-triol**  
 C<sub>30</sub>H<sub>50</sub>O<sub>4</sub> (474.73). Colorless needles (Me<sub>2</sub>CO), mp 118~120°C,  $[\alpha]_D^{26} = -4.7^\circ$   
 ( $c = 0.95$ , CH<sub>3</sub>OH). **Source:** HAI NAN JIAN MU *Dysoxylum hainanense*  
 (bark). **Ref:** 3987.



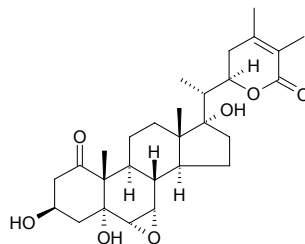
**7209 4(R),23-Epoxy-2 $\alpha$ ,3 $\alpha$ ,19 $\alpha$ -trihydroxy-24-norurs-12-en-28-oic acid**  
 C<sub>29</sub>H<sub>44</sub>O<sub>6</sub> (488.67). White powder, mp 232~234°C,  $[\alpha]_D^{25} = +33.4^\circ$  ( $c = 0.05$ ,  
 MeOH). **Source:** YANG TI *Rumex japonicus* (stem). **Ref:** 4541.



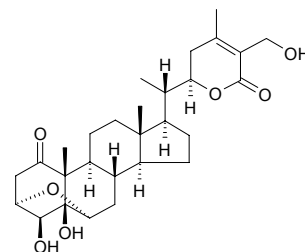
**7210 5 $\beta$ ,6 $\beta$ -Epoxy-4 $\beta$ ,17 $\alpha$ ,27-trihydroxy-1-oxowitha-2,24-dienolide**  
 17-Hydroxy withaferin C<sub>28</sub>H<sub>38</sub>O<sub>7</sub> (486.61). White amorphous powder,  $[\alpha]_D^{25} =$   
 $+12^\circ$  ( $c = 0.11$ , CH<sub>2</sub>Cl<sub>2</sub>). **Pharm:** BChE inhibitor (IC<sub>50</sub> = (161.5 $\pm$ 1.1) $\mu$ mol/L,  
 control Galanthamine, IC<sub>50</sub> = (0.50 $\pm$ 0.001) $\mu$ mol/L, Eserine IC<sub>50</sub> =  
 (0.04 $\pm$ 0.00) $\mu$ mol/L)<sup>[2563]</sup>; AChE inhibitor inactive<sup>[2563]</sup>. **Source:** CUI MIAN  
 SHUI QIE *Withania somnifera*, CUI MIAN SHUI QIE *Withania somnifera*  
 (leaf). **Ref:** 2563, 5329.



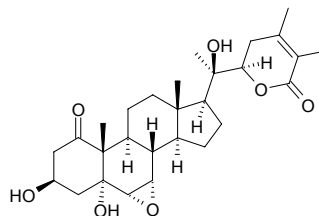
**7211 6 $\alpha$ ,7 $\alpha$ -Epoxy-3 $\beta$ ,5 $\alpha$ ,17 $\alpha$ -trihydroxy-1-oxo-witha-24-enolide**  
 C<sub>28</sub>H<sub>40</sub>O<sub>7</sub> (488.63). mp 258°C,  $[\alpha]_D^{30} = +66.00^\circ$  ( $c = 0.25$ , MeOH). **Source:**  
 CUI MIAN SHUI QIE *Withania somnifera* (leaf). **Ref:** 5329.



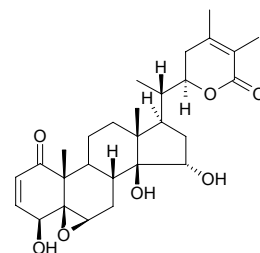
**7212 (20S,22R)-3 $\alpha$ ,6 $\alpha$ -Epoxy-4 $\beta$ ,5 $\beta$ ,27-trihydroxy-1-oxowitha-24-enolide**  
 C<sub>28</sub>H<sub>40</sub>O<sub>7</sub> (488.63). Amorphous powder,  $[\alpha]_D^{23} = -17.4^\circ$  ( $c = 0.109$ ,  
 MeOH). **Pharm:** Neurite outgrowth activity (hmn neuroblastoma  
 SH-SY5Y cell line, 1 $\mu$ mol/L). **Source:** CUI MIAN SHUI QIE *Withania*  
*somnifera* (root). **Ref:** 4198.



**7213 6 $\alpha$ ,7 $\alpha$ -Epoxy-3 $\beta$ ,5 $\alpha$ ,20 $\beta$ -trihydroxy-1-oxowitha-24-enolide**  
 C<sub>28</sub>H<sub>40</sub>O<sub>7</sub> (488.63). White amorphous powder,  $[\alpha]_D^{25} = -196^\circ$  ( $c = 0.006$ ,  
 MeOH). **Pharm:** AChE inhibitor inactive; BChE inhibitor inactive. **Source:**  
 CUI MIAN SHUI QIE *Withania somnifera*. **Ref:** 2563.

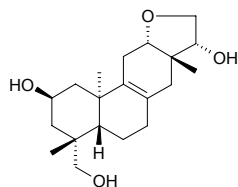


**7214 (20S,22R)-5 $\beta$ ,6 $\beta$ -epoxy-4 $\beta$ ,14 $\beta$ ,15 $\alpha$ -trihydroxy-1-oxowith-2,24-di-  
 enolide**  
 C<sub>28</sub>H<sub>38</sub>O<sub>7</sub> (486.61). Colorless needles,  $[\alpha]_D = +68^\circ$  ( $c = 0.2$ , MeOH). **Source:**  
 DENG LONG CAO *Physalis peruviana*. **Ref:** 1915.

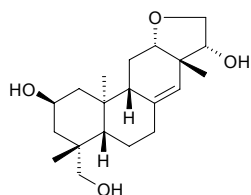


**7215 ent-12 $\alpha$ ,16-Epoxy-2 $\beta$ ,15 $\alpha$ ,19-trihydroxypimar-8-ene**

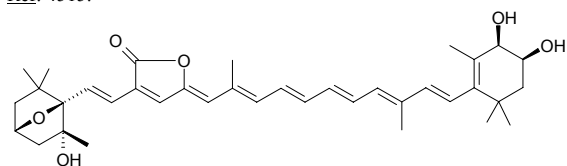
C<sub>20</sub>H<sub>32</sub>O<sub>4</sub> (336.48). White amorphous powder,  $[\alpha]_D^{20} = +13.8^\circ$  ( $c = 0.63$ , MeOH). Source: XI XIAN *Siegesbeckia orientalis* (aerial parts: yield = 0.00033%). Ref: 4764.

**7216 ent-12 $\alpha$ ,16-Epoxy-2 $\beta$ ,15 $\alpha$ ,19-trihydroxypimar-8(14)-ene**

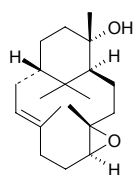
C<sub>20</sub>H<sub>32</sub>O<sub>4</sub> (336.48). White amorphous powder,  $[\alpha]_D^{20} = +6.5^\circ$  ( $c = 1.40$ , MeOH). Source: XI XIAN *Siegesbeckia orientalis* (aerial parts: yield = 0.00083%). Ref: 4764.

**7217 3,6-Epoxy-5,3',4'-trihydroxy-12',13',20'-trinor- $\beta$ , $\beta$ -caroten-19,11-olide**

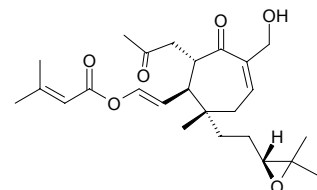
C<sub>37</sub>H<sub>48</sub>O<sub>6</sub> (588.79). Reddish solid. Source: MU LI (Oyster) *Crassostrea gigas*. Ref: 4515.

**7218 (9S,10S)-ent-9,10-Epoxyverticillol**

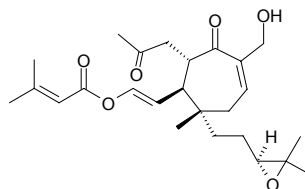
C<sub>20</sub>H<sub>34</sub>O<sub>2</sub> (306.49). Colorless crystals (*n*-hexane), mp 157~158°C,  $[\alpha]_D^{18} = -114.2^\circ$  ( $c = 1.81$ ). Source: ZHAO WA JIA KE TAI *Jackiella javanica*. Ref: 5303.

**7219 14R\*,15-Epoxyvibsanin C**

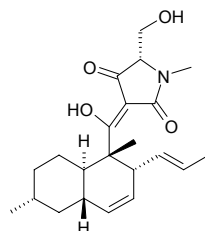
C<sub>25</sub>H<sub>36</sub>O<sub>6</sub> (432.56). Colorless oil,  $[\alpha]_D^{20} = +97.0^\circ$  ( $c = 0.12$ , CHCl<sub>3</sub>). Source: XIANG QI JIA MI *Viburnum odoratissimum* (leaf). Ref: 3512.

**7220 14S\*,15-Epoxyvibsanin C**

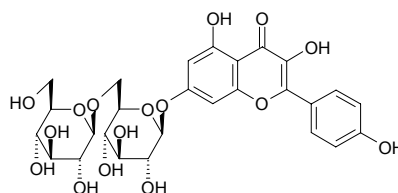
C<sub>25</sub>H<sub>36</sub>O<sub>6</sub> (432.56). Colorless oil,  $[\alpha]_D^{20} = +86.0^\circ$  ( $c = 0.12$ , CHCl<sub>3</sub>). Source: XIANG QI JIA MI *Viburnum odoratissimum* (leaf). Ref: 3512.

**7221 Equisetin**

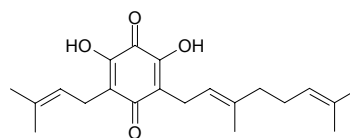
[57749-43-6] C<sub>22</sub>H<sub>31</sub>NO<sub>4</sub> (373.50). Amorphous powder, mp 65~66°C. Pharm: Antibacterial (gram-positive bacteria). Source: *Fusarium equiseti*. Ref: 2094.

**7222 Equisetrin**

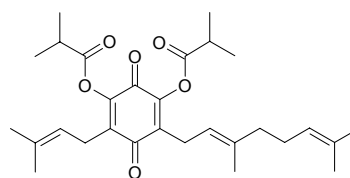
C<sub>27</sub>H<sub>30</sub>O<sub>16</sub> (610.53). mp 195~196°C. Source: WEN JING *Equisetum arvense*. Ref: 6, 1521.

**7223 Erectquione A**

2,6-Dihydroxyl-3-geranyl-5-isoprenyl-2,5-dihexadiene-1,4-dione C<sub>21</sub>H<sub>28</sub>O<sub>4</sub> (344.45). Red oil. Source: XIAO LIAN QIAO *Hypericum erectum*. Ref: 1990.

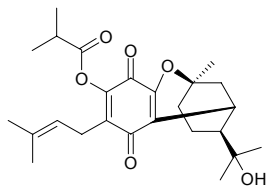
**7224 Erectquione B**

2,6-Diisobutyryloxy-3-geranyl-5-isoprenyl-2,5-dihexadiene-1,4-dione C<sub>29</sub>H<sub>40</sub>O<sub>6</sub> (484.64). Yellow oil. Source: XIAO LIAN QIAO *Hypericum erectum*. Ref: 1990.

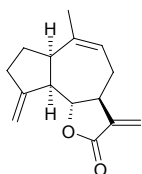


**7225 Erectquione C**

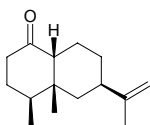
$C_{25}H_{34}O_6$  (430.55). Yellow oil,  $[\alpha]_D^{25} = -10^\circ$  ( $c = 0.10$ ,  $CHCl_3$ ). Source: XIAO LIAN QIAO *Hypericum erectum*. Ref: 1990.

**7226 Eremanthin**

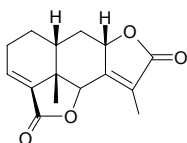
Vanillosmin [37936-58-6]  $C_{15}H_{18}O_2$  (230.31). Pharm: Schistosomacide. Source: *Vernonia* sp. Ref: 658.

**7227 Eremofukinone**

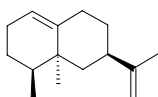
$C_{15}H_{24}O$  (220.36). bp 75~100°C/0.15mmHg. Source: FENG DOU CAI *Petasites japonicus*. Ref: 6.

**7228 8βH-Eremophil-3,7(11)-diene-12,8α(14,6α)-diolide**

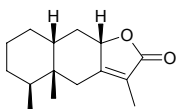
$C_{15}H_{16}O_4$  (260.29). Colorless plates, mp 230~231°C,  $[\alpha]_D^{20} = +28.0^\circ$  ( $c = 0.20$ ,  $CHCl_3$ ). Source: DONG E LUO DU WU *Ligularia tongolensis* (root). Ref: 4523.

**7229 Eremophilene**

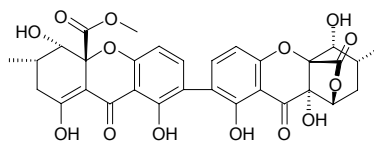
$C_{15}H_{24}$  (204.36). bp 129.5°C/13mmHg. Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], FENG DOU CAI *Petasites japonicus*, XIE CAO *Valeriana officinalis*. Ref: 2.

**7230 Eremophilenolide**

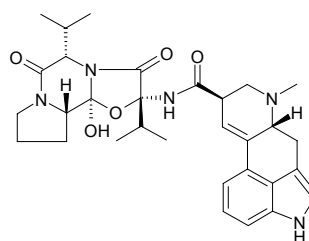
$C_{15}H_{22}O_2$  (234.34). Pharm: Antispasmodic. Source: *Petasites* sp. Ref: 658.

**7231 Ergochrysin**

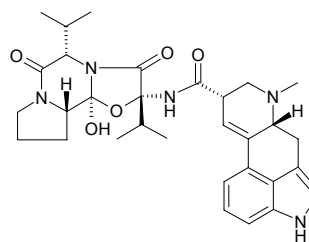
$C_{31}H_{28}O_{14}$  (624.56). mp 285°C (dec). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

**7232 Ergocornine**

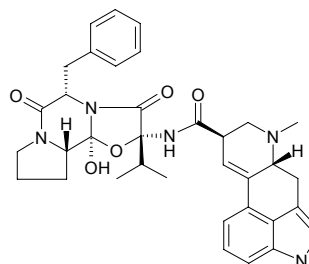
[564-36-3]  $C_{31}H_{39}N_5O_5$  (561.69). mp 181~184°C (dec). Pharm: Antineoplastic (rat, mammary cancer caused by DMBA); inhibits release of galactin; uterine stimulant; contracts blood vessels. Source: MAI JIAO *Claviceps purpurea*, WU ZHAO LONG *Ipomoea cairica* [Syn. *Ipomoea palmata*]. Ref: 5, 6, 658.

**7233 Ergocorninine**

[564-37-4]  $C_{31}H_{41}N_5O_5$  (563.70). mp 228°C (dec). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

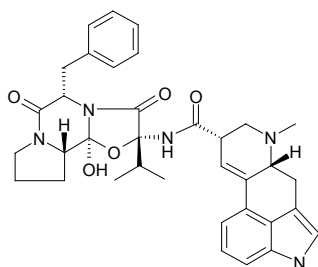
**7234 Ergocristine**

[511-08-0]  $C_{35}H_{39}N_5O_5$  (609.73). mp 165~170°C (dec). Pharm: Contracts blood vessels (similar physiological activity with ergot); inhibits release of galactin. Source: MAI JIAO *Claviceps purpurea*. Ref: 6, 658.

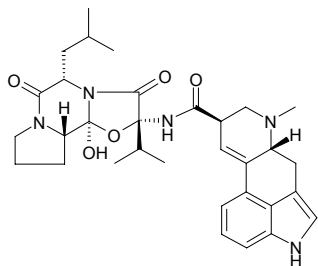


**7235 Ergocristinine**

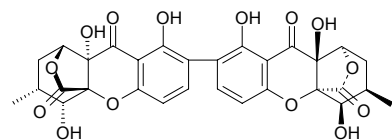
[511-07-9] C<sub>35</sub>H<sub>39</sub>N<sub>5</sub>O<sub>5</sub> (609.73). mp 214°C (dec). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

**7236 Ergocryptine**

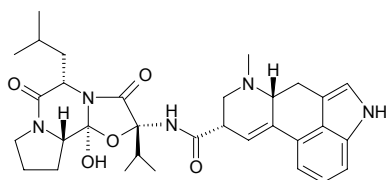
Ergokryptine [511-09-1] C<sub>32</sub>H<sub>41</sub>N<sub>5</sub>O<sub>5</sub> (575.71). Combining with solvent, prismatic crystals (acetone or benzene or methanol); recrystallization in methanol, mp 212°C (dec), [α]<sub>D</sub><sup>20</sup> = -120° (pyridine); [α]<sub>D</sub><sup>20</sup> = -198° (chloroform). Pharm: Antineoplastic; galactin inhibitor (female sheep); toxin. Source: MAI JIAO *Claviceps purpurea*. Ref: 5, 6, 658.

**7237 Ergoflavine**

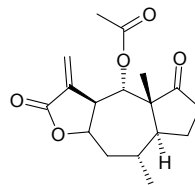
C<sub>30</sub>H<sub>26</sub>O<sub>14</sub> (610.53). mp 350°C (dec). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

**7238 α-Ergokryptinine**

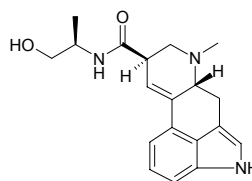
[511-10-4] C<sub>32</sub>H<sub>41</sub>N<sub>5</sub>O<sub>5</sub> (575.71). mp 240~242°C (dec). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

**7239 Ergolide**

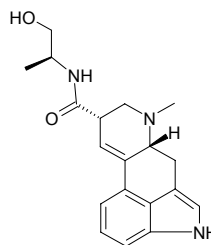
[54999-07-4] C<sub>17</sub>H<sub>22</sub>O<sub>5</sub> (306.36). White acicular crystals, mp 169~170°C, [α]<sub>D</sub><sup>20</sup> = +133° (c = 1.26, CH<sub>2</sub>Cl<sub>2</sub>). Pharm: Anti-inflammatory (NF-κB pathway)<sup>[4415]</sup>, anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>. Source: SHUI CHAO YANG *Inula helianthus-aquatica*. Ref: 430, 4415.

**7240 Ergometrine**

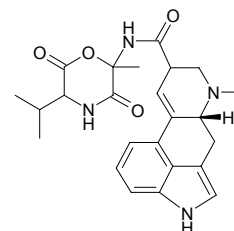
Ergobasine; Ergonovine; Ergostetrine; Ergoklinine; Ergotrate; Syntometrine [60-79-7] C<sub>19</sub>H<sub>23</sub>N<sub>3</sub>O<sub>2</sub> (325.41). Tetrahedral crystals (acetic ester), acicular crystals (benzene), mp 162°C, [α]<sub>D</sub><sup>20</sup> = -16° (c = 1, peridine), [α]<sub>D</sub><sup>20</sup> = -44° (chloroform), [α]<sub>D</sub><sup>20</sup> = +42° (ethanol), easily soluble in methanol, ethanol, acetic ester, acetone, slightly soluble in chloroform.<sup>[5507]</sup> Pharm: Inhibits release of galactin; similar action with arterenol to nerve system; uterine stimulant; used in treatment of post-partum uterus bleeding. Source: MAI JIAO *Claviceps purpurea*, YIN YE SHU *Ipomoea argyrophylla* MO XI GE XUAN HUA *River corymbosa* (the compound was isolated from the plant by A.Hofmann, et al. in 1961)<sup>[5505]</sup>. Ref: 4, 658, 5505, 5507.

**7241 Ergometrinine**

[479-00-5] C<sub>19</sub>H<sub>23</sub>N<sub>3</sub>O<sub>2</sub> (325.41). mp (+) 195~197°C (dec). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

**7242 Ergosecalinine**

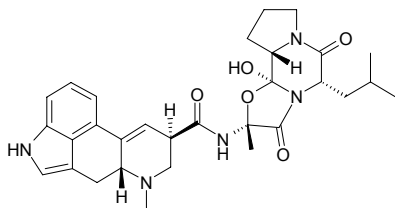
C<sub>24</sub>H<sub>28</sub>N<sub>4</sub>O<sub>4</sub> (436.52). mp 217°C (dec). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.



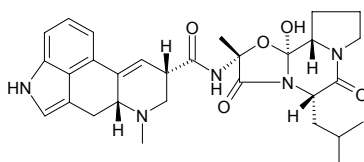


**7243 Ergosine**

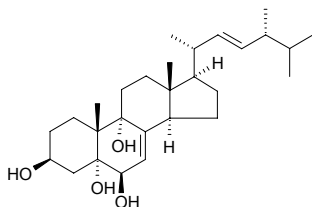
[561-94-4] C<sub>30</sub>H<sub>37</sub>N<sub>5</sub>O<sub>5</sub> (547.66). mp 228°C (dec). **Pharm:** Anti-fertility agent (rat, sc); anti-inflammatory (rat, swollen foot model caused by 5-HT and carrageenan); 5-HT receptor blocker (gpg uterus *in vitro*); adrenergic  $\alpha$ -receptor blocker (gpg testis *in vitro*); contracts blood vessels and increases blood pressure (cat, iv); inhibits release of galactin; oxytocic (rbt uterus iv, *in vivo*); similar action with ergotamine. **Source:** MAI JIAO *Claviceps purpurea*. **Ref:** 6, 658.

**7244 Ergosinine**

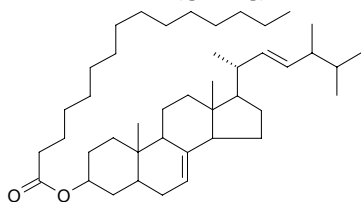
[596-88-3] C<sub>30</sub>H<sub>37</sub>N<sub>5</sub>O<sub>5</sub> (547.66). mp 228°C (dec). **Source:** MAI JIAO *Claviceps purpurea*. **Ref:** 6.

**7245 22E,24R-Ergosta-7,22-diene-3 $\beta$ ,5 $\alpha$ ,6 $\beta$ ,9 $\alpha$ -tetraol**

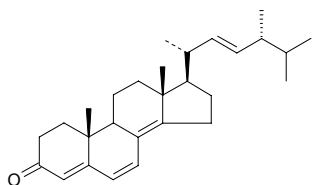
C<sub>28</sub>H<sub>46</sub>O<sub>4</sub> (446.68). White powder. **Source:** DUO ZHI RU GU *Lactarius rolemus*. **Ref:** 752.

**7246 Ergosta-7,22-dien-3 $\beta$ -yl pentadecanoate**

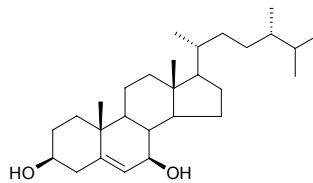
C<sub>43</sub>H<sub>74</sub>O<sub>2</sub> (623.07). White powder, mp 113~115°C. **Source:** LING ZHI *Ganoderma lucidum* (sporocarp). **Ref:** 4810.

**7247 Ergosta-4,6,8(14),22-tetraen-3-one**

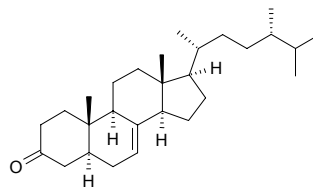
[19254-69-4] C<sub>28</sub>H<sub>40</sub>O (392.63). mp 114~115°C. **Source:** A LI HONG *Fomes officinalis*, LING *Trapa bispinosa*, ZHU LING *Polyporus umbellatus*. **Ref:** 2, 6.

**7248 (24S)-Ergost-5-en-3 $\beta$ ,7 $\beta$ -diol**

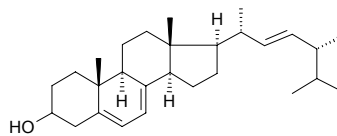
C<sub>28</sub>H<sub>48</sub>O<sub>2</sub> (416.69). Colorless crystals, mp 211~213°C, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = -64.1° (c = 0.05, CHCl<sub>3</sub>). **Source:** *Lobophytum* sp. **Ref:** 4432.

**7249 Ergost-7-en-3-one**

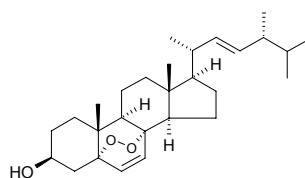
5 $\alpha$ ,8 $\alpha$ -Epi-dioxysterol-6-en-3 $\beta$ -ol C<sub>28</sub>H<sub>46</sub>O (398.68). **Source:** MU TI CENG KONG JUN *Fomes fomentarius* [Syn. *Pyropolyporus fomentarius*; *Boletus fomentarius*; *Polyporus fomentarius*]. **Ref:** 3972.

**7250 Ergosterol**

(22E)-Ergosta-5,7,22-trien-3 $\beta$ -ol [57-87-4] C<sub>28</sub>H<sub>44</sub>O (396.66). mp 163°C. **Pharm:** Transforms into vitamin D<sub>2</sub> under ultraviolet ray. **Source:** A LI HONG *Fomes officinalis*, BAI JIANG CAN *Bombyx mori*, BAI QU CAI *Chelidonium majus*, DONG CHONG XIA CAO *Cordyceps sinensis* (dried fungal stroma growing on larva of a caterpillar: content = 0.213%<sup>[5508]</sup>), FU LING *Poria cocos*, JI ZONG *Collybia albuminosa*, LING ZHI *Ganoderma lucidum*, MA BO *Lasiosphaera fenzlii*, MAI JIAO *Claviceps purpurea*, MU ER *Auricularia auricula*, NIU HUANG *Bos taurus domesticus*; *Bubalus bubalis*, REN GONG YONG CHONG CAO *Cordyceps militaris* cv. (sclerotium and stroma: content = 0.210%<sup>[5508]</sup>), SANG HUANG *Phellinus igniarius*, SHUANG BAO MO GU *Agaricus bisporus*, SONG XUN *Tricholoma matsutake* [Syn. *Armillaria matsutake*], XIANG XUN *Lentinus edodes*, YONG CHONG CAO *Cordyceps militaris* (sclerotium and stroma: content = 0.226%<sup>[5508]</sup>), YUAN CAN SHA *Bombyx mori*, ZHEN MO *Armillariella mellea*, ZHU LING *Polyporus umbellatus*, ZI ZHI *Ganoderma japonicum* [Syn. *Ganoderma sinense*], occurs in many plants. **Ref:** 2, 6, 587, 660, 1407, 5508.

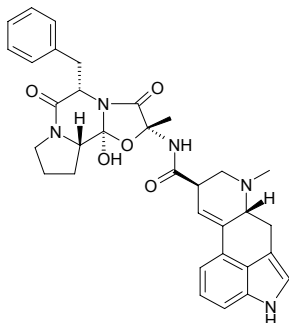
**7251 Ergosterol peroxide**

5 $\alpha$ ,8 $\alpha$ -Epidioxysterol-6,22-dien-3 $\beta$ -ol [2061-64-5] C<sub>28</sub>H<sub>44</sub>O<sub>3</sub> (428.66). Colorless acicular crystals, mp 182~184°C, mp 165~169°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -34° (c = 0.6, CHCl<sub>3</sub>). **Pharm:** Anti-HIV-1 (weakly). **Source:** LING ZHI *Ganoderma lucidum* (dried sporocarp: yield = 0.003%<sup>[4603]</sup>), ZI DING XIANG MO *Lepista nuda*, *Pleurotus eryngii*, *Antrodia camphorata* (fruit: yield = 0.060%dw). **Ref:** 2169, 3003, 4183, 4603.

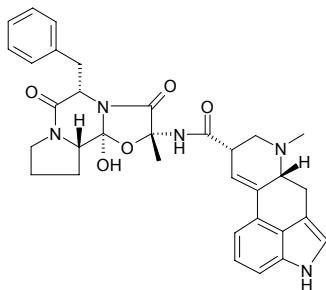


**7252 Ergotamine**

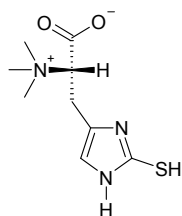
[113-15-5] C<sub>33</sub>H<sub>35</sub>N<sub>5</sub>O<sub>5</sub> (581.68). mp 212~214°C (dec). Pharm: Adrenergic receptor blocker (large dose, to turn over boost pressure action due to adrenalin); smooth muscle stimulant (peripheral blood vessel *in vitro*); relieves headache (recovers normal for over-dilation and excess beat of cerebral arteries); uterine stimulant; toxin (damages vascular endothelial cells in high dose). Source: MAI JIAO *Claviceps purpurea*. Ref: 4, 658.

**7253 Ergotaminine**

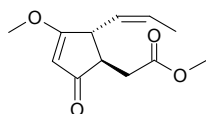
[639-81-6] C<sub>33</sub>H<sub>35</sub>N<sub>5</sub>O<sub>5</sub> (581.68). mp 252°C (dec). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

**7254 Ergothioneine**

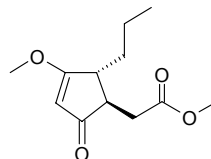
[497-30-3] C<sub>9</sub>H<sub>15</sub>N<sub>3</sub>O<sub>2</sub>S (229.30). mp 290°C (dec). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

**7255 Erigerenone A**

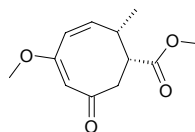
C<sub>12</sub>H<sub>16</sub>O<sub>4</sub> (224.26). Colorless oil, [α]<sub>D</sub><sup>24</sup> = +7.3° (c = 0.14, MeOH). Source: FEI CHENG FEI PENG *Erigeron philadelphicus* (aerial parts). Ref: 4366.

**7256 Erigerenone B**

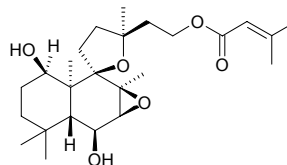
C<sub>12</sub>H<sub>18</sub>O<sub>4</sub> (226.27). Colorless oil, [α]<sub>D</sub><sup>24</sup> = +7.9° (c = 0.25, MeOH). Source: FEI CHENG FEI PENG *Erigeron philadelphicus*, YI NIAN PENG *Erigeron annuus*, SU MEN BAI JIU CAO *Erigeron sumatrensis* (aerial parts). Ref: 4366.

**7257 Erigerenone C**

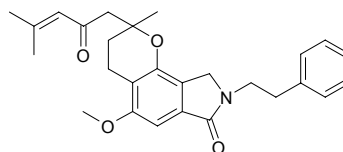
C<sub>12</sub>H<sub>16</sub>O<sub>4</sub> (224.26). Colorless oil, [α]<sub>D</sub><sup>22</sup> = +4.2° (c = 0.24, MeOH). Source: FEI CHENG FEI PENG *Erigeron philadelphicus* (aerial parts). Ref: 4366.

**7258 Erigerol**

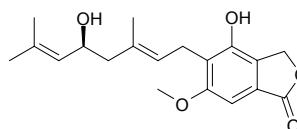
C<sub>25</sub>H<sub>40</sub>O<sub>6</sub> (436.59). Source: FEI CHENG FEI PENG *Erigeron philadelphicus* (aerial parts). Ref: 4338.

**7259 Erinacerin A**

C<sub>27</sub>H<sub>31</sub>NO<sub>4</sub> (433.55). Colorless oil, [α]<sub>D</sub><sup>21</sup> = +0° (c = 0.4, MeOH). Source: HOU TOU JUN *Herichium erinaceus* [Syn. *Hydnum erinaceus*]. Ref: 4513.

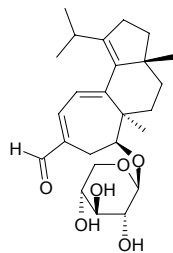
**7260 Erinacerin B**

C<sub>19</sub>H<sub>24</sub>O<sub>5</sub> (332.40). Amorphous powder, [α]<sub>D</sub><sup>24</sup> = +12.7° (c = 0.2, MeOH). Source: HOU TOU JUN *Herichium erinaceus* [Syn. *Hydnum erinaceus*]. Ref: 4513.

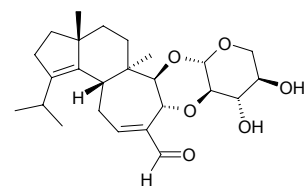


**7261 Erinacine A**

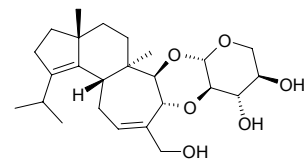
Erinacin A [156101-08-5]  $C_{25}H_{36}O_6$  (432.56). White crystals mp 74–76°C,  $[\alpha]_D = +216^\circ$  ( $c = 0.28$ , methanol). **Pharm:** Stimulates synthesis of NGF (mus neuroglia astrocytes *in vitro*, 1.0 mmol/L, NGF = 250.1pg/mL, comparing with adrenaline NGF = 69.2pg/mL) **Source:** HOU TOU JUN *Hericium erinaceus* [Syn. *Hydnum erinaceus*]. **Ref:** 948, 1174.

**7262 Erinacine B**

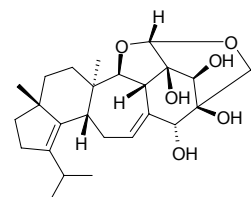
Erinacin B [156101-10-9]  $C_{25}H_{36}O_6$  (432.56). White crystals mp 125–127°C,  $[\alpha]_D = -34.9^\circ$  ( $c = 0.18$ , methanol). **Pharm:** Stimulates synthesis of NGF (rat spider neuroglia cell *in vitro*, 1.0 mmol/L, NGF = 129pg/mL, comparing with adrenaline NGF = 69pg/mL) **Source:** HOU TOU JUN *Hericium erinaceus* [Syn. *Hydnum erinaceus*]. **Ref:** 948, 1174.

**7263 Erinacine C**

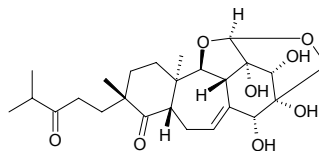
Erinacin C [156101-09-6]  $C_{25}H_{38}O_6$  (434.58). White crystals mp 115–118°C,  $[\alpha]_D = -72.5^\circ$  ( $c = 0.73$ , methanol). **Pharm:** Stimulates synthesis of NGF (mus spider neuroglia cell *in vitro*, 1.0 mmol/L, NGF = 299pg/mL, comparing with adrenaline NGF = 69.2pg/mL) **Source:** HOU TOU JUN *Hericium erinaceus* [Syn. *Hydnum erinaceus*]. **Ref:** 948, 1174.

**7264 Erinacine E**

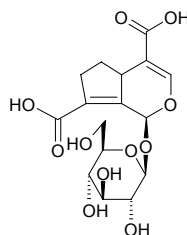
Erinacin E [178232-25-2]  $C_{25}H_{36}O_6$  (432.56). mp 161–163°C,  $[\alpha]_D^{25} = -114^\circ$  ( $c = 0.50$ , methanol). **Pharm:** Stimulates synthesis of NGF (rat spider neuroglia cell *in vitro*, 5.0 mmol/L, NGF = 105pg/mL) **Source:** HOU TOU JUN *Hericium erinaceus* [Syn. *Hydnum erinaceus*]. **Ref:** 1175.

**7265 Erinacine G**

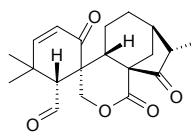
Erinacin G [182927-59-9]  $C_{25}H_{36}O_8$  (464.56).  $[\alpha]_D^{25} = -13^\circ$  ( $c = 0.25$ , methanol). **Source:** HOU TOU JUN *Hericium erinaceus* [Syn. *Hydnum erinaceus*]. **Ref:** 1521.

**7266 Erinaside**

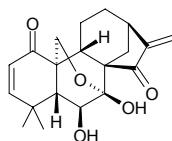
$C_{16}H_{20}O_{11}$  (388.33). Amorphous solid. **Source:** *Erinus alpinus* (frozen whole herb). **Ref:** 5291.

**7267 Eriocalysin A**

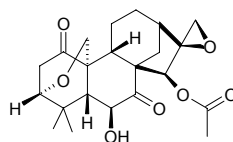
$C_{20}H_{24}O_5$  (344.41). mp 242–244°C,  $[\alpha]_D^{18.5} = +157.2^\circ$  ( $c = 0.127$ ,  $CHCl_3$ ). **Source:** MAO E XIANG CHA CAI *Rabdosia eriocalyx*. **Ref:** 4067.

**7268 Eriocalysin B**

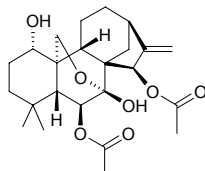
Rabdosianone  $C_{20}H_{24}O_5$  (344.41). mp 216–218°C,  $[\alpha]_D^{18.5} = -185.2^\circ$  ( $c = 0.108$ ,  $CHCl_3$ ). **Source:** MAO E XIANG CHA CAI *Rabdosia eriocalyx*. **Ref:** 4067.

**7269 Eriocalysin C**

$C_{22}H_{28}O_7$  (404.46). mp 191.5–192.5°C,  $[\alpha]_D^{22} = -67.1^\circ$  ( $c = 0.26$ , MeOH). **Source:** MAO E XIANG CHA CAI *Rabdosia eriocalyx*. **Ref:** 4067.

**7270 Eriocalysin D**

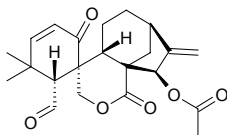
$C_{24}H_{34}O_7$  (434.53). mp 208–210°C,  $[\alpha]_D^{23} = -64.6^\circ$  ( $c = 0.27$ , MeOH). **Source:** MAO E XIANG CHA CAI *Rabdosia eriocalyx*. **Ref:** 4067.



**7271 Eriocalysin E**

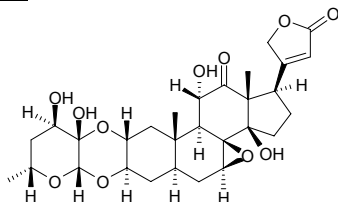
$C_{22}H_{26}O_6$  (386.45). mp 178~179.5°C,  $[\alpha]_D^{23} = +92.7^\circ$  ( $c = 0.27$ , MeOH).

Source: MAO E XIANG CHA CAI *Rabdosia eriocalyx*. Ref: 4067.

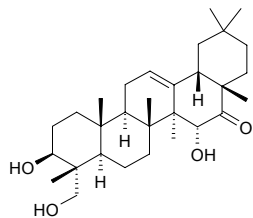
**7272 Eriocarpin**

Desglucosyrioside  $C_{29}H_{38}O_{11}$  (562.62). Pharm: LD<sub>50</sub> (male Swiss Webster mus, ip) = 6.5mg/kg. Source: MAO GUO MA LI JIN *Asclepias eriocarpa*.

Ref: 658.

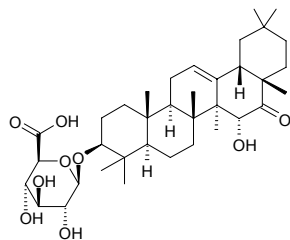
**7273 Eriocarpin B**

3 $\beta$ ,15 $\alpha$ ,23-Trihydroxy-olean-12-en-16-one  $C_{30}H_{48}O_4$  (472.71). Colorless crystals (MeOH), R[20, D] = +11.02° ( $c = 0.003$ , MeOH); colorless lamellar crystals, mp 218~220°C. Source: MAO GUO YU TENG *Derris eriocarpa*, YUN NAN GE TENG *Pueraria peduncularis*. Ref: 665, 2262.

**7274 Eriocarpin C**

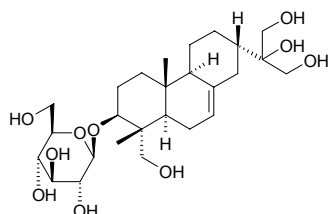
15 $\alpha$ -Hydroxy-16-oxo-olean-12(13)-en-3-*O*- $\beta$ -glucuronopyranoside  $C_{36}H_{56}O_9$  (632.84). Colorless crystals (MeOH), R[20, D] = -20.67° ( $c = 0.0052$ , MeOH).

Source: MAO GUO YU TENG *Derris eriocarpa*. Ref: 2262.

**7275 Eriocaside A**

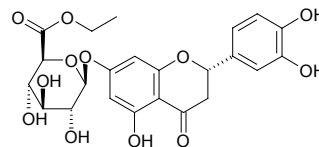
$C_{26}H_{44}O_{10}$  (516.63).  $[\alpha]_D^{21} = +0.83^\circ$  ( $c = 0.12$ , MeOH). Source: MAO E

XIANG CHA CAI *Rabdosia eriocalyx*. Ref: 4067.

**7276 Eriodictyl 7-*O*- $\beta$ -D-(6'-ethyl ester)-glucuronopyranoside**

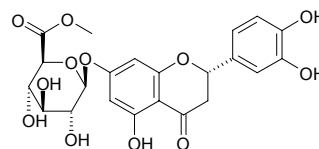
$C_{23}H_{24}O_{12}$  (492.44). Yellow needles (MeOH), mp 158~161°C,  $[\alpha]_D^{20} = -58.1^\circ$  ( $c = 0.56$ , MeOH). Source: NIU JIN TIAO *Dichotomanthes tristaniaecarpa*.

Ref: 2263.

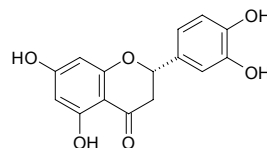
**7277 Eriodictyl 7-*O*- $\beta$ -D-(6'-methyl ester)-glucuronopyranoside**

$C_{22}H_{22}O_{12}$  (478.41). Yellow needles (MeOH), mp 121~123°C,  $[\alpha]_D = -71.3^\circ$  ( $c = 0.61$ , MeOH). Source: NIU JIN TIAO *Dichotomanthes tristaniaecarpa*.

Ref: 2263.

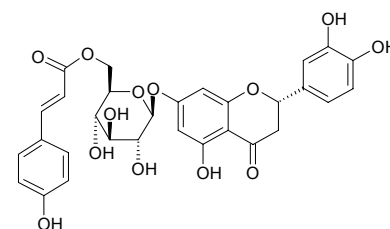
**7278 Eriodictyol**

[552-58-9]  $C_{15}H_{12}O_6$  (288.26). mp 267°C. Pharm: Antibacterial (*Pseudomonas maltophilia*, *Enterobacter cloacae*); diuretic (rbt); induces gene expression of pea nodule bacteria and accrete host *Pisum sativum*; larvacide (inhibits *Heliothis zea* larva growth); aldose reductase inhibitor (rat eye lens,  $10^{-5}$ mg/L, InRt = 90%); anti-inflammatory (modulator of cytokine network: inhibits LPS-stimulated TNF- $\alpha$  release in RAW264.7 macrophages,  $IC_{50} \approx 50\mu\text{mol/L}$ )<sup>[44]61</sup>. Source: BA DAN XING REN *Prunus amygdalus*, DA CHI JI *Onopordum acanthium*, HUANG QIN *Scutellaria baicalensis*, JIN JI ZE LAN *Eupatorium subhastatum*, LI MU *Lyonia ovalifolia*, OU BO HE *Mentha longifolia*, YOU GAN YE *Phyllanthus emblica* (branch and leaf). Ref: 6, 658, 660, 4205, 4416.

**7279 (S)-Eriodictyol-7-*O*-(6''-*O*-*trans*-*p*-coumaroyl)- $\beta$ -D-glucopyranoside**

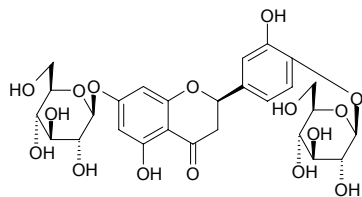
$C_{30}H_{28}O_{13}$  (596.55). Yellow amorphous powder,  $[\alpha]_D^{28} = -92.8^\circ$  ( $c = 0.36$ , MeOH).

Source: YOU GAN YE *Phyllanthus emblica* (branch and leaf). Ref: 4205.

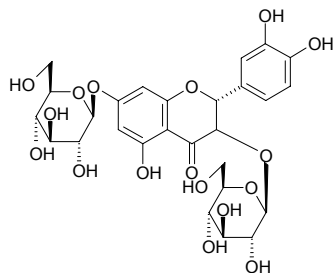


**7280 (2R)-Eriodictyol-7,4'-di-O-β-D-glucopyranoside**

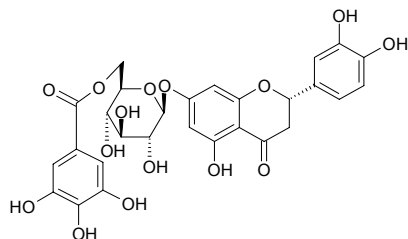
C<sub>27</sub>H<sub>32</sub>O<sub>16</sub> (612.55). Pale yellow amorphous solid. **Pharm:** Antioxidant (hydroxyl radical, IC<sub>50</sub> = 0.18mmol/L, control EGCG, IC<sub>50</sub> = 0.58mmol/L; superoxide anion, IC<sub>50</sub> = 0.25mmol/L, EGCG, IC<sub>50</sub> = 0.53mmol/L). **Source:** HU JI SHENG *Viscum coloratum* (branch and leaf: yield = 0.0008%dw). **Ref:** 920.

**7281 Eriodictyol-7,3-diglucoside**

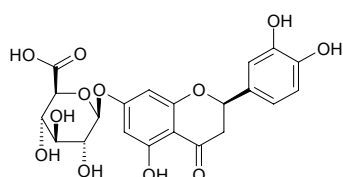
C<sub>27</sub>H<sub>32</sub>O<sub>17</sub> (628.55). **Source:** SHAN ZHA *Crataegus pinnatifida*. **Ref:** 2.

**7282 (S)-Eriodictyol-7-O-(6''-O-galloyl)-β-D-glucopyranoside**

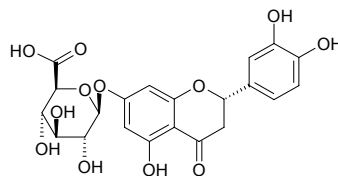
C<sub>28</sub>H<sub>26</sub>O<sub>15</sub> (602.51). Yellow amorphous powder, [α]<sub>D</sub><sup>28</sup> = -79.4° (c = 0.41, MeOH). **Source:** YOU GAN YE *Phyllanthus emblica* (branch and leaf). **Ref:** 4205.

**7283 (2R)-Eriodictyol-7-O-β-D-glucopyranosiduronic acid**

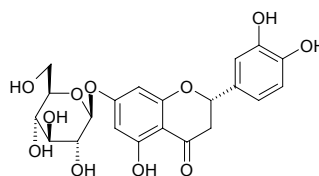
C<sub>21</sub>H<sub>20</sub>O<sub>12</sub> (464.39). Yellow powder, [α]<sub>D</sub><sup>24</sup> = -54.5° (c = 0.10, MeOH). **Pharm:** Aldose reductase inhibitor (rat lens, IC<sub>50</sub> = 1.5μmol/L, control Epalrestat, IC<sub>50</sub> = 0.072μmol/L)<sup>[4214]</sup>. **Source:** LU SHAN SHI WEI *Pyrrosia shearerii* (dried leaf: content = 0.043%)<sup>[5508]</sup>, SHI WEI *Pyrrosia lingua* (dried leaf: content scope of 3 origins = 0.026%~0.168%, mean content = 0.0763%)<sup>[5508]</sup>, XI NAN SHI WEI *Pyrrosia gralla* (dried leaf: content = 0.037%)<sup>[5508]</sup>, YE JU HUA *Chrysanthemum indicum* (flower-head: yield = 0.0023%)<sup>[4214]</sup>, YOU BING SHI WEI *Pyrrosia petiolosa* (dried leaf: content scope of 12 origins = 0.861%~2.743%, mean content = 1.613%)<sup>[5508]</sup>, ZHAN MAO SHI WEI *Pyrrosia drakeana* (dried leaf: content = 0.051%)<sup>[5508]</sup>. **Ref:** 4214, 5508.

**7284 (2S)-Eriodictyol-7-O-β-D-glucopyranosiduronic acid**

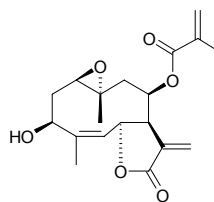
C<sub>21</sub>H<sub>20</sub>O<sub>12</sub> (464.39). Yellow powder, [α]<sub>D</sub><sup>26</sup> = -35.6° (c = 0.20, MeOH). **Pharm:** Aldose reductase inhibitor (rat lens, IC<sub>50</sub> = 2.1μmol/L, control Epalrestat, IC<sub>50</sub> = 0.072μmol/L). **Source:** YE JU HUA *Chrysanthemum indicum* (flower: yield = 0.0027%). **Ref:** 4214.

**7285 Eriodictyol-7-glucoside**

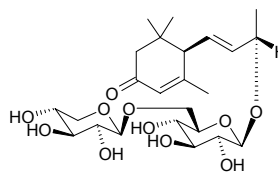
[In DNP] C<sub>21</sub>H<sub>22</sub>O<sub>11</sub> (450.40). mp 175~177°C. **Source:** SHUI YANG ZHI YE *Salix purpurea*, YOU GAN YE *Phyllanthus emblica* (branch and leaf). **Ref:** 6, 4205.

**7286 Erioflorin**

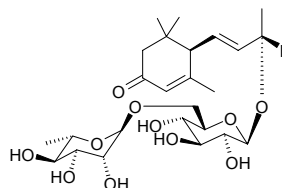
C<sub>19</sub>H<sub>24</sub>O<sub>6</sub> (348.40). **Source:** *Viguiera eriophora* ssp. *eriphora* (aerial parts), *Viguiera puruana* (aerial parts). **Ref:** 5090.

**7287 Eriojaposide A**

(6R,9R)-3-Oxo-α-ionyl-9-O-β-xylopyranosyl-(1''→6')-β-glucopyranoside C<sub>24</sub>H<sub>38</sub>O<sub>11</sub> (502.56). Amorphous powder, [α]<sub>D</sub><sup>23</sup> = +26.7° (c = 1.0, MeOH). **Source:** PI PA YE *Eriobotrya japonica* (branch and leaf). **Ref:** 3061.

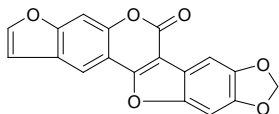
**7288 Eriojaposide B**

(6R,9R)-3-Oxo-α-ionyl-9-O-α-rhamnopyranosyl-(1''→6')-β-glucopyranoside C<sub>25</sub>H<sub>40</sub>O<sub>11</sub> (516.59). Amorphous powder, [α]<sub>D</sub><sup>23</sup> = +33.5° (c = 1.0, MeOH). **Source:** PI PA YE *Eriobotrya japonica* (branch and leaf). **Ref:** 3061.

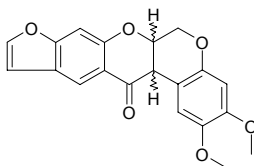


**7289 Erosnine**

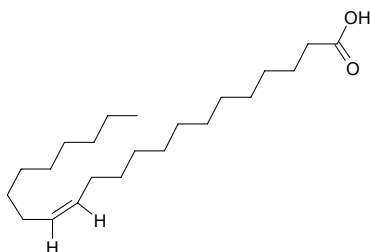
[In DNP] C<sub>18</sub>H<sub>8</sub>O<sub>6</sub> (320.26). mp 350°C (dec). Source: DI GUA ZI *Pachyrhizus erosus*. Ref: 6.

**7290 Erosone**

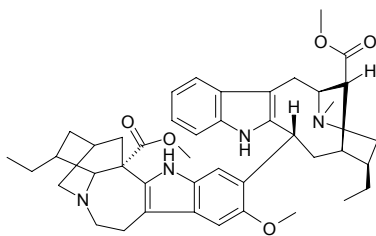
[15236-21-2] C<sub>20</sub>H<sub>16</sub>O<sub>6</sub> (352.35). mp 218°C. Source: DI GUA ZI *Pachyrhizus erosus*. Ref: 6.

**7291 Erucic acid**

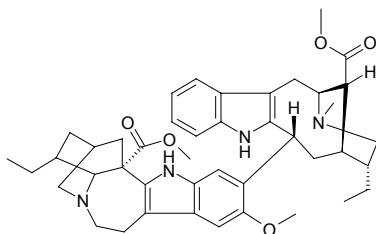
*cis*-13-Docosenoic acid [112-86-7] C<sub>22</sub>H<sub>42</sub>O<sub>2</sub> (338.58). mp 33.5–34.0°C, bp 241–243°C/5mmHg. Source: BO NIANG HAO *Descurainia sophia*, GUI ZHU XIANG *Cheiranthus cheiri*, HAN LIAN HUA *Tropaeolum majus*, LAI FU ZI *Raphanus sativus*, YUN TAI ZI *Brassica campestris* [Syn. *Brassica campestris* var. *oleifera*]. Ref: 6, 658, 660.

**7292 Ervdivaricatine A**

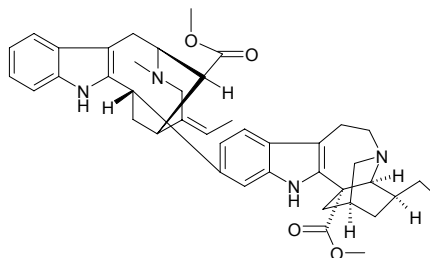
C<sub>43</sub>H<sub>56</sub>N<sub>4</sub>O<sub>5</sub> (708.95). mp 217–220°C. Source: DAN BAN GOU YA HUA *Ervatamia divaricata*. Ref: 802.

**7293 Ervdivaricatine B**

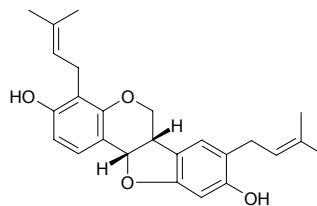
C<sub>43</sub>H<sub>56</sub>N<sub>4</sub>O<sub>5</sub> (708.95). mp 190°C. Source: DAN BAN GOU YA HUA *Ervatamia divaricata*. Ref: 802.

**7294 Ervahanine A**

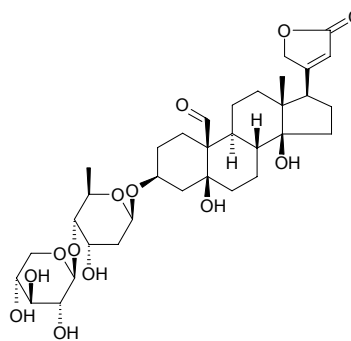
C<sub>42</sub>H<sub>50</sub>N<sub>4</sub>O<sub>4</sub> (674.89). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa*. Ref: 3403.

**7295 Erybraedin C**

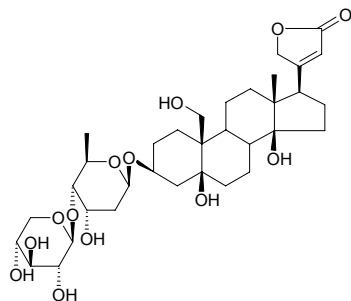
C<sub>25</sub>H<sub>28</sub>O<sub>4</sub> (392.50). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -17° (c = 0.5, MeOH). Pharm: Cytotoxic (KB, IC<sub>50</sub> = (23.7±0.5)μmol/L, control Helenalin, IC<sub>50</sub> = (0.64±0.08)μmol/L, Melphalan, IC<sub>50</sub> = (6.0±0.5)μmol/L; Mono-Mac-6, IC<sub>50</sub> = (28.6±1.4)μmol/L, Helenalin, IC<sub>50</sub> = (3.1±0.3)μmol/L; Jurkat-T, IC<sub>50</sub> = (21.4±0.5)μmol/L, Helenalin, IC<sub>50</sub> = (1.14±0.08)μmol/L, Melphalan, IC<sub>50</sub> = (9.1±0.8)μmol/L). Source: *Bituminaria morisiana* (leaf). Ref: 5077.

**7296 Erychroside**

[630-65-9] C<sub>34</sub>H<sub>50</sub>O<sub>13</sub> (666.77). mp 243–246°C, [ $\alpha$ ]<sub>D</sub> = +18° (methanol). Pharm: Cardiotonic; antihypertensive. Source: GUI ZHU TANG JIE *Erysimum cheiranthoides*. Ref: 6, 661.

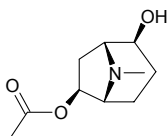
**7297 Erychrosol**

C<sub>34</sub>H<sub>52</sub>O<sub>13</sub> (668.79). Source: GUI ZHU TANG JIE *Erysimum cheiranthoides*. Ref: 6.

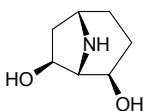


**7298 Erycibe alkaloid II**

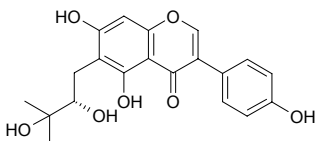
$C_{10}H_{17}NO_3$  (199.25). White mucilage,  $[\alpha]_D^{20} = -5.56^\circ$  ( $c = 0.90$ ,  $CHCl_3$ ); benzoate: white tiny acicular crystals (benzene or acetone), mp 160–161°C. **Pharm:** Antihypertensive (rbt, iv, 0.5mL of 0.025% solution); causes miosis. **Source:** DING GONG TENG *Erycibe obtusifolia*. **Ref:** 661.

**7299 Erycibelline**

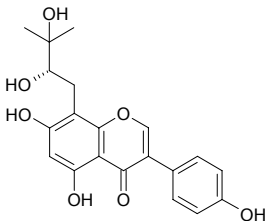
2β,7β-Dihydroxynortropine [107633-95-4]  $C_7H_{13}NO_2$  (143.19). Alkaline colorless oleaginous,  $[\alpha]_D^{10} = -12.5^\circ$  ( $c = 0.57$ , ethanol). **Source:** AO MAI DING GONG TENG *Erycibe elliptilimba*. **Ref:** 68.

**7300 Erycibenin A**

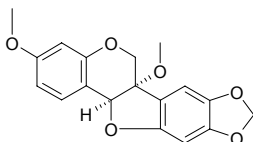
$C_{20}H_{20}O_7$  (372.38). **Pharm:** Hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by *D*-galactosamine (GalN),  $IC_{50} = 79\mu\text{mol/L}$ , control Silybin  $IC_{50} = 41\mu\text{mol/L}$ ). **Source:** GUANG BU DING GONG TENG *Erycibe expansa*. **Ref:** 4095.

**7301 Erycibenin B**

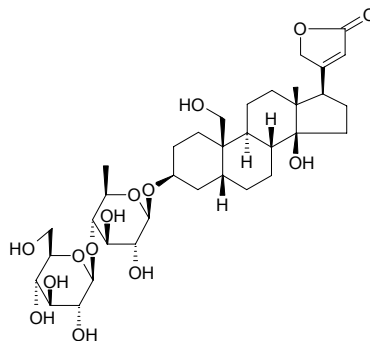
$C_{20}H_{20}O_7$  (372.38). **Pharm:** Hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by *D*-galactosamine (GalN),  $100\mu\text{mol/L}$ ,  $\text{InRt} = (31.9 \pm 0.3)\%$ , weak, control Silybin,  $100\mu\text{mol/L}$ ,  $\text{InRt} = (77.0 \pm 5.5)\%$ ). **Source:** GUANG BU DING GONG TENG *Erycibe expansa*. **Ref:** 4095.

**7302 Erycibenin C**

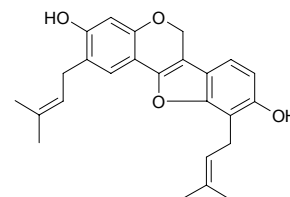
$C_{18}H_{16}O_6$  (328.32). **Pharm:** Hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by *D*-galactosamine (GalN),  $100\mu\text{mol/L}$ ,  $\text{InRt} = (10.5 \pm 2.7)\%$ , weak, control Silybin,  $100\mu\text{mol/L}$ ,  $\text{InRt} = (77.0 \pm 5.5)\%$ ). **Source:** GUANG BU DING GONG TENG *Erycibe expansa*. **Ref:** 4095.

**7303 Erycordine**

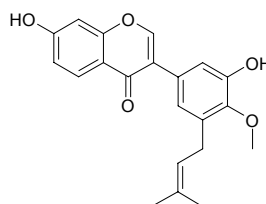
[13428-83-6]  $C_{35}H_{54}O_{14}$  (698.81). **Pharm:** Cardiotoxic; increases coronary flow; antihypertensive. **Source:** GUI ZHU TANG JIE *Erysimum cheiranthoides*, HUAN YANG SHEN YE TANG JIE *Erysimum crepidifolium*. **Ref:** 6, 658.

**7304 Erycrystalgallin**

$C_{25}H_{26}O_4$  (390.48). mp 179–180°C. **Pharm:** Antimalarial (antiplasmodial in *in vitro*, *Plasmodium falciparum*, W2 strain,  $IC_{50} = (20.1 \pm 3.6)\mu\text{mol/L}$ , control Quinine,  $IC_{50} = (0.21 \pm 0.01)\mu\text{mol/L}$ ; D6 strain,  $IC_{50} = (19.0 \pm 0.9)\mu\text{mol/L}$ , Quinine,  $IC_{50} = (0.042 \pm 0.002)\mu\text{mol/L}$ ). **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica* (root cortex). **Ref:** 5420.

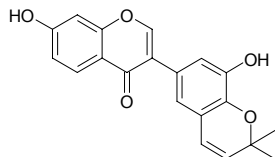
**7305 Erylatissin A**

7,3'-Dihydroxy-4'-methoxy-5'-(γ,γ-dimethylallyl)isoflavone  $C_{21}H_{20}O_5$  (352.39). Brown paste. **Pharm:** Antibacterial (*Escherichia coli*, MIA = 5.00μg, control Chloramphenicol, MIA = 0.001μg; *Staphylococcus aureus*, MIA = 0.10μg, Chloramphenicol, MIA = 0.0001μg; *Bacillus subtilis*, MIA = 0.10μg, Chloramphenicol, MIA = 0.0001μg); antifungal (*Candida mycoderma*, MIA = 0.02μg, control Miconazole, MIA = 0.0001μg); antioxidant (DPPH scavenger, TLC, MIA = 0.5μg,  $IC_{50} = 780\mu\text{g/mL}$ ; control Quercetin, MIA < 0.05μg,  $IC_{50} = 7\mu\text{g/mL}$ , Gallic acid, MIA < 0.05μg,  $IC_{50} = 4\mu\text{g/mL}$ ; Ascorbic acid, MIA < 0.10μg,  $IC_{50} = 18\mu\text{g/mL}$ ). **Source:** JI KUAN CI TONG *Erythrina latissima* (stem wood). **Ref:** 5247.

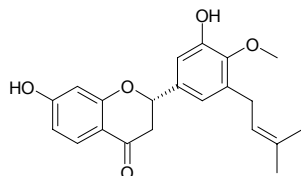


**7306 Erylatissin B**

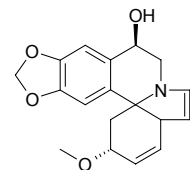
7,3'-Dihydroxy-6",6"-dimethyl-4",5"-dehydropyrano [2",3":4',5']isoflavone C<sub>20</sub>H<sub>16</sub>O<sub>5</sub> (336.35). Yellowish paste. **Pharm:** Antibacterial (*Staphylococcus aureus*, MIA = 1.00µg, Chloramphenicol, MIA = 0.0001µg; *Bacillus subtilis*, MIA = 1.00µg, Chloramphenicol, MIA = 0.0001µg); antifungal (*Candida mycoderma*, MIA = 1.00µg, control Miconazole, MIA = 0.0001µg); antioxidant (DPPH scavenger, TLC, MIA = 10µg, IC<sub>50</sub> > 1000µg/mL; control Quercetin, MIA < 0.05µg, IC<sub>50</sub> = 7µg/mL, Gallic acid, MIA < 0.05µg, IC<sub>50</sub> = 4µg/mL; Ascorbic acid, MIA < 0.10µg, IC<sub>50</sub> = 18µg/mL). **Source:** JI KUAN CI TONG *Erythrina latissima* (stem wood). **Ref:** 5247.

**7307 Erylatissin C**

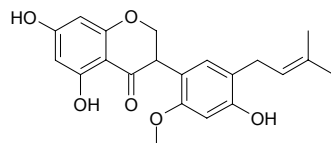
(-)-7,3'-Dihydroxy-4'-methoxy-5'-(γ,γ-dimethylallyl)flavanone C<sub>21</sub>H<sub>22</sub>O<sub>5</sub> (354.41). Yellow solid, mp 56–59°C, [α]<sub>D</sub> = -78° (c = 0.025, MeOH). **Pharm:** Antibacterial (*Escherichia coli*, MIA = 0.50µg, control Chloramphenicol, MIA = 0.001µg; *Staphylococcus aureus*, MIA = 0.10µg, Chloramphenicol, MIA = 0.0001µg; *Bacillus subtilis*, MIA = 0.01µg, Chloramphenicol, MIA = 0.0001µg); antifungal (*Candida mycoderma*, MIA = 0.01µg, control Miconazole, MIA = 0.0001µg); antioxidant (DPPH scavenger, TLC, MIA = 0.5µg, IC<sub>50</sub> = 710µg/mL; control Quercetin, MIA < 0.05µg, IC<sub>50</sub> = 7µg/mL, Gallic acid, MIA < 0.05µg, IC<sub>50</sub> = 4µg/mL; Ascorbic acid, MIA < 0.10µg, IC<sub>50</sub> = 18µg/mL). **Source:** JI KUAN CI TONG *Erythrina latissima* (stem wood). **Ref:** 5247.

**7308 Eryphrinine**

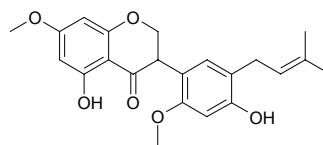
C<sub>18</sub>H<sub>19</sub>NO<sub>4</sub> (313.36). **Source:** JI GUAN CI TONG *Erythrina crysragalli* (the compound was isolated from the plant in 1973). **Ref:** 5505.

**7309 Erypoeigin C**

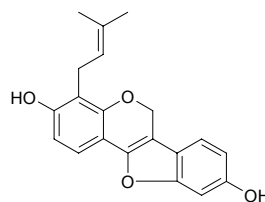
C<sub>21</sub>H<sub>22</sub>O<sub>6</sub> (370.41). Colorless oil. **Source:** SHAN DI CI TONG *Erythrina poeppigiana*. **Ref:** 1972.

**7310 Erypoeigin D**

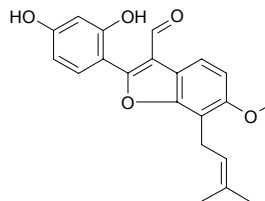
C<sub>22</sub>H<sub>24</sub>O<sub>6</sub> (384.43). Colorless oil. **Source:** SHAN DI CI TONG *Erythrina poeppigiana*. **Ref:** 1972.

**7311 Erypoeigin E**

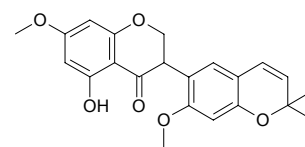
C<sub>20</sub>H<sub>18</sub>O<sub>4</sub> (322.36). Yellowish oil. **Source:** SHAN DI CI TONG *Erythrina poeppigiana*. **Ref:** 1972.

**7312 Erypoeigin F**

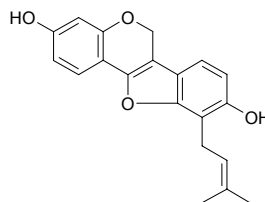
C<sub>21</sub>H<sub>20</sub>O<sub>5</sub> (352.39). Amorphous powder. **Pharm:** Antibacterial (13 strains of methicillin-resistant *Staphylococcus aureus* (MRSA), for 13/13 active). **Source:** SHAN DI CI TONG *Erythrina poeppigiana* (root). **Ref:** 3400.

**7313 Erypoeigin G**

C<sub>22</sub>H<sub>22</sub>O<sub>6</sub> (382.42). Amorphous powder, [α]<sub>D</sub> = ±0°. **Pharm:** Antibacterial inactive (13 strains of methicillin-resistant *Staphylococcus aureus* (MRSA), for 13/13 inactive). **Source:** SHAN DI CI TONG *Erythrina poeppigiana* (root). **Ref:** 3400.

**7314 Erypoeigin H**

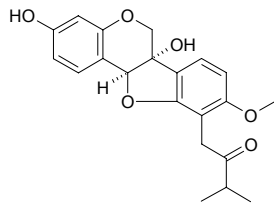
C<sub>20</sub>H<sub>18</sub>O<sub>4</sub> (326.36). Amorphous powder. **Pharm:** Antibacterial (13 strains of methicillin-resistant *Staphylococcus aureus* (MRSA), for 13/13 active). **Source:** SHAN DI CI TONG *Erythrina poeppigiana* (root). **Ref:** 3400.



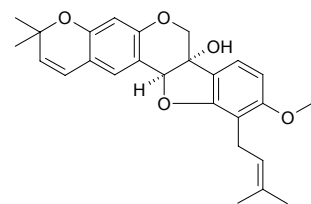


**7315 Erypoeigin I**

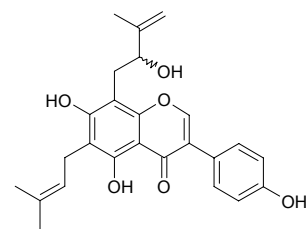
$C_{21}H_{22}O_6$  (370.41). Amorphous powder,  $[\alpha]_D = -71^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antibacterial inactive (13 strains of methicillin-resistant *Staphylococcus aureus* (MRSA), for 13/13 inactive). **Source:** SHAN DI CI TONG *Erythrina poeppigiana* (root). **Ref:** 3400.

**7316 Erypoeigin J**

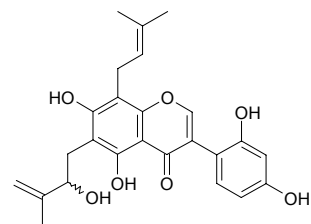
$C_{26}H_{28}O_5$  (420.51). Amorphous powder,  $[\alpha]_D = -96^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antibacterial inactive (13 strains of methicillin-resistant *Staphylococcus aureus* (MRSA), for 13/13 inactive). **Source:** SHAN DI CI TONG *Erythrina poeppigiana* (root). **Ref:** 3400.

**7317 Erysenegalensein E**

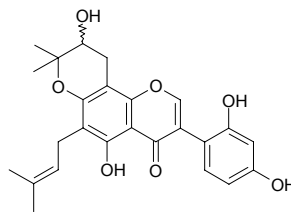
$C_{25}H_{26}O_6$  (422.48). Colorless amorphous,  $[\alpha]_D = +4.8^\circ$  ( $c = 0.056$ , EtOH). **Pharm:** Antifungal (*Trichophyton mentagrophytes*, 500–1000  $\mu\text{g}/\text{mL}$ )<sup>[2347]</sup>, cytotoxic (KB,  $EC_{50} = 6.25 \mu\text{g}/\text{mL}$ ). **Source:** CI TONG *Erythrina variegata* [Syn. *Erythrina indica*] (stem cortex), PAN YUAN YU TENG *Derris scandens*. **Ref:** 2347, 5220.

**7318 Erysenegalensein N**

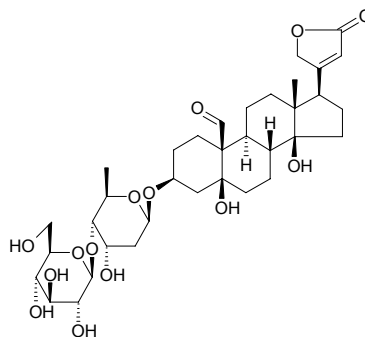
5,7,2',4'-Tetrahydroxy-6-(2''-hydroxy-3''-methylbut-3''-enyl)-8-( $\gamma,\gamma$ -dimethylallyl) isoflavone  $C_{25}H_{26}O_7$  (438.48). Pale-yellow oil,  $[\alpha]_D^{20} = -3.3^\circ$  ( $c = 0.8$ , MeOH). **Source:** SAI NEI JIA ER CI TONG *Erythrina senegalensis*. **Ref:** 2344.

**7319 Erysenegalensein O**

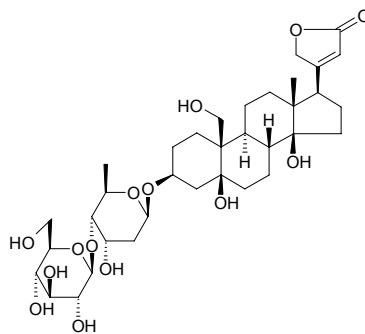
5,2',4'-Trihydroxy-6-( $\gamma,\gamma$ -dimethylallyl)-3''-hydroxy-2''-dimethyldihydropyrano[5''',6''';8,7]isoflavone  $C_{25}H_{26}O_7$  (438.48). Pale-yellow oil. **Source:** SAI NEI JIA ER CI TONG *Erythrina senegalensis*. **Ref:** 2344.

**7320 Erysimoside**

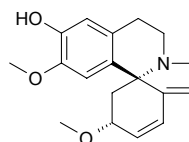
$C_{35}H_{52}O_{14}$  (696.80). mp 170–173°C. **Pharm:** Cardiotonic. **Source:** CHANG SHUO HUANG MA *Corchorus olitorius*, GUI ZHU TANG JIE *Erysimum cheiranthoides*, HUANG MA YE *Corchorus capsularis*, HUANG MA ZI *Corchorus capsularis*, KANG PI DU MAO XUAN HUA *Strophanthus kombe*, LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*], MENG GU CE JIN ZHAN HUA *Adonis mongolica*, TANG JIE *Erysimum diffusum*. **Ref:** 6, 658.

**7321 Erysimosol**

3-O-Digilanidobioside [11006-14-7]  $C_{35}H_{54}O_{14}$  (698.81). **Source:** GUI ZHU TANG JIE *Erysimum cheiranthoides*. **Ref:** 6.

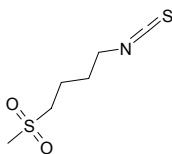
**7322 Erysoidine**

[7290-03-1]  $C_{18}H_{21}NO_3$  (299.37). mp 204–205°C. **Source:** QIAO MU CI TONG *Erythrina arborescens*. **Ref:** 6.

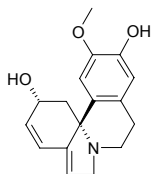


**7323 Erysoline**

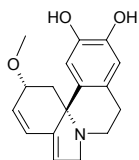
[504-84-7]  $C_6H_{11}NO_2S_2$  (193.29). mp 59–60°C. **Pharm:** Antibacterial (gram-positive bacteria, gram-negative bacteria, acid-fast bacteria, EC = 125–500  $\mu\text{g/mL}$ ); antiprotozoal (*Trichomonas vaginalis* and *Trypanosoma equiperdum*, *in vitro*, EC = 1.0  $\mu\text{g/mL}$ , *Castellanella gambiense*, *in vitro*, EC = 0.5–2.5  $\mu\text{g/mL}$ ); antiviral (*in vitro*); cytotoxic (EAC *in vitro*, 500  $\mu\text{g/mL}$ , after 24h completely inhibition). **Source:** A FU HAN TANG JIE *Erysimum perofskianum*, QUN XIN CAI *Cardaria draba*, MAO DU XING CAI *Lepidium draba*. **Ref:** 661.

**7324 Erysonine**

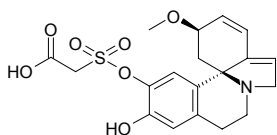
[7290-05-3]  $C_{17}H_{19}NO_3$  (285.35). **Pharm:** Neuromuscular blocker. **Source:** JIA LE BI CI TONG *Erythrina caribea*, HEI CI CI TONG *Erythrina melanacantha*. **Ref:** 658.

**7325 Erysoipine**

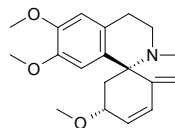
$C_{17}H_{19}NO_3$  (285.35). mp 242–243°C. **Pharm:** Ganglionic blocker (curariform action). **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica*, CI TONG *Erythrina variegata* [Syn. *Erythrina indica*], FU KE CI TONG *Erythrina folkersii*, QIAO MU CI TONG *Erythrina arborescens*, SHU WEI CAO HUA CI TONG *Erythrina salviiflora*, YING HE CI TONG *Erythrina lithosperma*. **Ref:** 6, 658.

**7326 Erysothiopine**

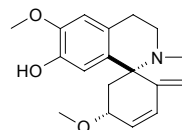
[In DNP]  $C_{19}H_{21}NO_7S$  (407.45). Hydrate crystals (solution of ethanol in water), mp 168–169°C,  $[\alpha]_D^{25} = +194^\circ$  (ethanol). **Pharm:** Neuromuscular blocker. **Source:** HUI CI TONG *Erythrina glauca*. **Ref:** 658.

**7327 Erysoitrine**

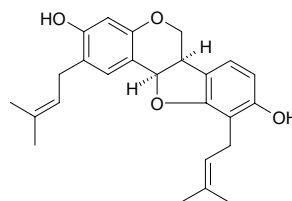
[27740-43-8]  $C_{19}H_{23}NO_3$  (313.40). Free alkali: mp 95–97°C (light petroleum ether); hydrochloride: mp 206–208°C (ether–ethanol); bitter acid salt: mp 162–163,  $[\alpha]_D^{21} = +142^\circ$  ( $c = 0.4$ , ethanol). **Pharm:** Antineoplastic; neuromuscular blocker; uterine stimulant. **Source:** GOU QI XIAO BO *Berberis zycium*, SHUAN ZHUANG CI TONG *Erythrina suberosa*. **Ref:** 661.

**7328 Erysovine**

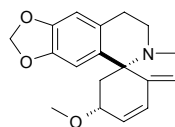
[466-72-8]  $C_{18}H_{21}NO_3$  (299.37). mp 178–179°C. **Pharm:** Ganglionic blocker (curariform action). **Source:** CI TONG *Erythrina variegata* [Syn. *Erythrina indica*], FU KE CI TONG *Erythrina folkersii*, QIAO MU CI TONG *Erythrina arborescens*, SHU WEI CAO HUA CI TONG *Erythrina salviiflora*. **Ref:** 6, 658.

**7329 Erythrabssin II**

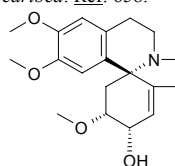
$C_{25}H_{28}O_4$  (392.50). **Pharm:** Antimalarial (antiplasmodial *in vitro*, *Plasmodium falciparum*, W2 strain,  $IC_{50} = (6.5 \pm 0.6) \mu\text{mol/L}$ , control Quinine,  $IC_{50} = (0.21 \pm 0.01) \mu\text{mol/L}$ ; D6 strain,  $IC_{50} = (8.1 \pm 1.4) \mu\text{mol/L}$ , Quinine,  $IC_{50} = (0.042 \pm 0.002) \mu\text{mol/L}$ ). **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica* (root cortex). **Ref:** 5420.

**7330 Erythraline**

[466-77-3]  $C_{18}H_{19}NO_3$  (297.36). mp 106–107°C. **Pharm:** Ganglionic blocker (curariform action). **Source:** HAI TONG PI *Erythrina variegata* var. *orientalis*. **Ref:** 6, 658.

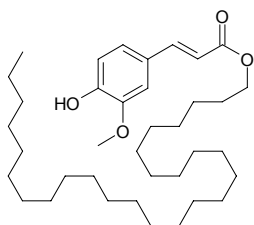
**7331 Erythratidine**

[41431-22-5]  $C_{19}H_{25}NO_4$  (331.42). **Pharm:** Neuromuscular blocker. **Source:** HEI CI CI TONG *Erythrina melanacantha*, JIA LE BI CI TONG *Erythrina caribea*. **Ref:** 658.

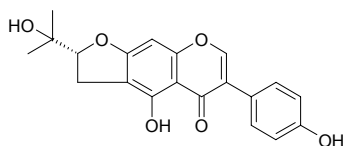


**7332 Erythrinassinate B**

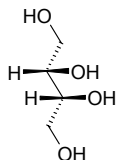
$C_{37}H_{64}O_4$  (572.92). Source: CI TONG *Erythrina variegata* [Syn. *Erythrina indica*] (stem cortex). Ref: 5220.

**7333 Erythrinin C**

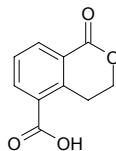
[63807-85-2]  $C_{20}H_{18}O_6$  (354.36). Source: *Glycyrrhiza* sp. Ref: 2431.

**7334 Erythritol**

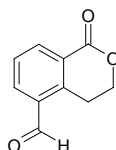
Threitol [149-32-6]  $C_4H_{10}O_4$  (122.12). Amorphous powder,  $[\alpha]_D^{23} = 0^\circ$ , mp *D*(+) 88.5~89.0°C, *L*(-) 88°C, *dl* 72 °C; mp 121.5°C, bp 329~331°C. Pharm: Coronary vasodilator. Source: BAO CHUN HUA *Primula malacoides*, BEI SHA SHEN *Glehnia littoralis* (fruit), SHI LUO ZI *Anethum graveolens* (fruit), YING SU KE *Papaver somniferum*, ZHANG YE BAN XIA *Pinellia pedatisecta*, ZHEN MO *Armillariella mellea*. Ref: 6, 586, 658, 3525, 4177.

**7335 Erythrocentauric acid**

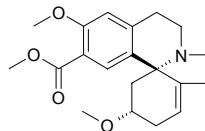
5-Carboxyl-3,4-dihydrogen-1*H*-2-benzopyran-1-one  $C_{10}H_8O_4$  (192.17). Tubbiness colorless transparent needles, mp 251~253°C. Source: QIN JIAO *Gentiana macrophylla*. Ref: 4594, 4824.

**7336 Erythrocentaurin**

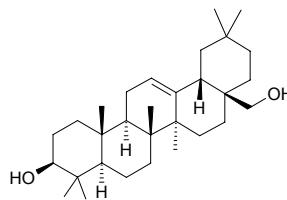
$C_{10}H_8O_3$  (176.17). Colorless needles, mp 145~147°C ( $CHCl_3$ ). Source: QIN JIAO *Gentiana macrophylla*. Ref: 4594, 4824.

**7337 Erythroculine**

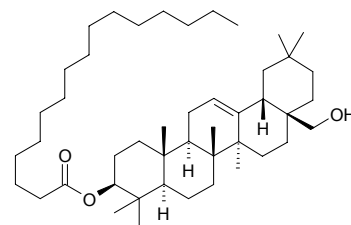
[22150-96-5]  $C_{20}H_{25}NO_4$  (343.43). Source: HENG ZHOU WU YAO *Cocculus laurifolius*. Ref: 6.

**7338 Erythrodiol**

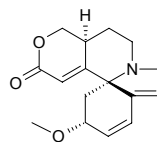
Olean-12-en-3,28-diol  $C_{30}H_{50}O_2$  (442.73). mp 215~217°C. Source: BING PIAN *Dryobalanops aromatica*, BING PIAN *Dryobalanops aromatica*, FENG XIANG JI SHENG *Viscum articulatum*, MANG GUO SHU PI *Mangifera indica*. Ref: 2, 6.

**7339 Erythrodiol 3-O-palmitate**

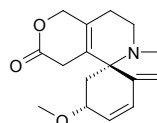
$C_{46}H_{80}O_3$  (681.15). Source: HUANG LONG DAN *Gentiana lutea* (rhizome and root). Ref: 4307.

**7340  $\alpha$ -Erythroidine**

[466-80-8]  $C_{16}H_{19}NO_3$  (273.33). Acicular crystals (pentane), mp 58~60°C,  $[\alpha]_D^{27} = +136^\circ$  ( $c = 0.5$ , water), instable in air. Pharm: Neuromuscular blocker. Source: MEI ZHOU CI TONG *Erythrina americana*. Ref: 658.

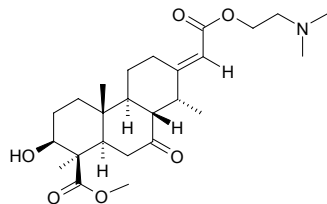
**7341  $\beta$ -Erythroidine**

[466-81-9]  $C_{16}H_{19}NO_3$  (273.33). Crystals (absolute ethanol), mp 99.5~100.0°C,  $[\alpha]_D^{25} = +88.8^\circ$ . Pharm: Hypnotic; inhibits respiration; antihypertensive; neuromuscular blocker; LD<sub>50</sub> (mus, ip) = 29.5mg/kg. Source: MEI ZHOU CI TONG *Erythrina americana*. Ref: 658.

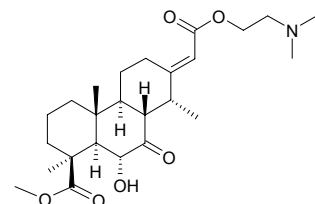


**7342 Erythrophlamine**

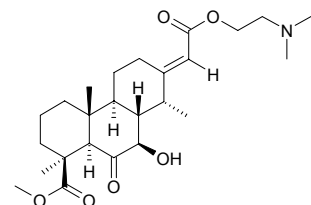
$C_{25}H_{39}NO_6$  (449.59). Crystals (ethanol–petroleum ether), mp 149–157°C,  $[\alpha]_D^{20} = -62.5^\circ$  ( $c = 0.911$ , ethanol). Pharm: Cardiotonic. Source: FEI ZHOU GE MU *Erythrophleum africanum*, JI NEI YA GE MU *Erythrophleum guineense*, KAO MING GE MU *Erythrophleum couminga*, XIANG YA HAI AN GE MU *Erythrophleum ivorense*, YE XIANG GE MU *Erythrophleum suaveolens*. Ref: 658.

**7343 Erythrophleguine**

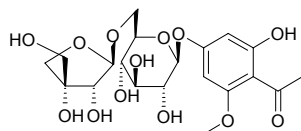
[4829-28-1]  $C_{25}H_{39}NO_6$  (449.59). mp 77–78°C,  $[\alpha]_D = -38^\circ$  (ethanol). Pharm: Cardiotonic; enhances myocardial contractility; slows heart rate. Source: JI NEI YA GE MU *Erythrophleum guineense*, KAO MING GE MU *Erythrophleum couminga*, XIANG YA HAI AN GE MU *Erythrophleum ivorense*, YE XIANG GE MU *Erythrophleum suaveolens*. Ref: 658.

**7344 Erythrosumamine**

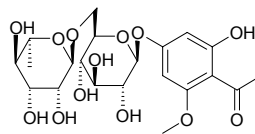
$C_{25}H_{39}NO_6$  (449.59). Source: JI NEI YA GE MU *Erythrophleum guineense*. Ref: 1521.

**7345 Erythroxyloside A**

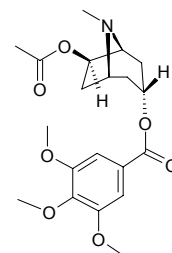
$C_{20}H_{28}O_{13}$  (476.44). Amorphous powder,  $[\alpha]_D^{24} = -88.0^\circ$  ( $c = 0.97$ , MeOH). Source: JIAN PU ZHAI GU KE *Erythroxyllum cambodianum* (aerial parts). Ref: 4461.

**7346 Erythroxyloside B**

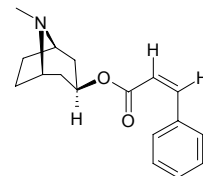
$C_{21}H_{30}O_{13}$  (490.47). Amorphous powder,  $[\alpha]_D^{24} = -78.3^\circ$  ( $c = 1.07$ , MeOH). Source: JIAN PU ZHAI GU KE *Erythroxyllum cambodianum* (aerial parts). Ref: 4461.

**7347 Erythrozeylanine A**

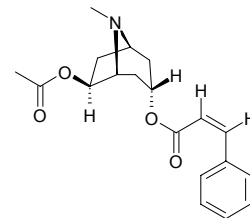
1*R*,3*R*,5*S*,6*R*-6-Acetoxy-3-(3',4',5'-trimethoxybenzoyloxy)tropane  $C_{20}H_{27}NO_7$  (393.44). Colorless semisolid,  $[\alpha]_D^{25} = -22.1^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). Source: XI LAN GU KE *Erythroxyllum zeylanicum* (root). Ref: 3919.

**7348 Erythrozeylanine B**

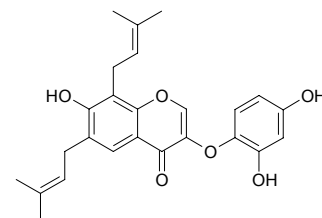
*cis*-3β-(Cinnamoyloxy)tropane  $C_{17}H_{21}NO_2$  (271.36). Source: XI LAN GU KE *Erythroxyllum zeylanicum* (root). Ref: 3919.

**7349 Erythrozeylanine C**

*cis*-6β-Acetoxy-3α-(cinnamoyloxy)tropane  $C_{19}H_{23}NO_4$  (329.40). Source: XI LAN GU KE *Erythroxyllum zeylanicum* (twig, leaf). Ref: 3919.

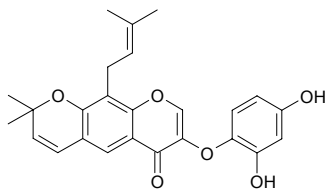
**7350 Eryvarin F**

3-(2,4-Dihydroxyphenoxy)-7-hydroxy-6,8-di(3,3-dimethylallyl)chromen-4-one  $C_{25}H_{26}O_6$  (422.48). Amorphous powder. Source: CI TONG *Erythrina variegata* [Syn. *Erythrina indica*]. Ref: 2040.

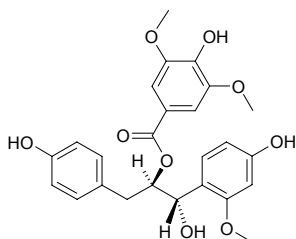


**7351 Eryvarin G**

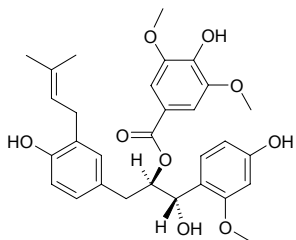
3-(2,4-dihydroxyphenoxy)-8-(3,3-dimethylallyl)-2,2-dimethylpyrano[5,6:6,7]chromen-4-one C<sub>25</sub>H<sub>24</sub>O<sub>6</sub> (420.47). Amorphous powder. Source: CI TONG *Erythrina variegata* [Syn. *Erythrina indica*]. Ref: 2040.

**7352 Eryvarinol A**

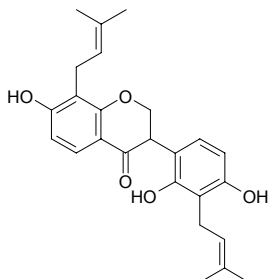
C<sub>25</sub>H<sub>26</sub>O<sub>9</sub> (470.48). Amorphous powder,  $[\alpha]_D^{23} = -74^\circ$  ( $c = 0.1$ , MeOH). Source: CI TONG *Erythrina variegata* [Syn. *Erythrina indica*] (root: yield = 0.0015%). Ref: 4671.

**7353 Eryvarinol B**

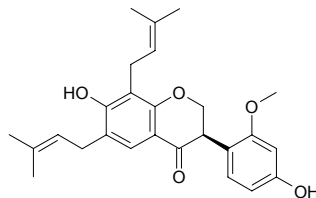
C<sub>30</sub>H<sub>34</sub>O<sub>9</sub> (538.6). Amorphous powder,  $[\alpha]_D^{23} = -62^\circ$  ( $c = 0.1$ , MeOH). Source: CI TONG *Erythrina variegata* [Syn. *Erythrina indica*] (root: yield = 0.0021%). Ref: 4671.

**7354 Eryzerin A**

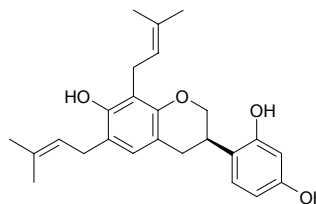
(±)-7,2',4'-Trihydroxy-8,3'-di(γ,γ-dimethylallyl)isoflavanone C<sub>25</sub>H<sub>28</sub>O<sub>5</sub> (408.50). Amorphous powder,  $[\alpha]_D = \pm 0^\circ$ . Pharm: Antibacterial (Methicillin-Resistant *Staphylococcus aureus* (MRSA), MIC range = 12.5~25 μg/mL, MIC<sub>50</sub> = 25 μg/mL, MIC<sub>90</sub> = 25 μg/mL, proportion of sensitive strains at 12.5 μg/mL = 4/13). Source: *Erythrina zeyheri* (root). Ref: 3451.

**7355 Eryzerin B**

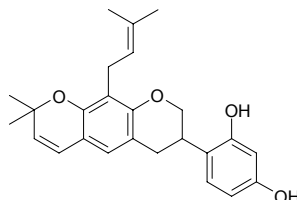
(3R)-7,4'-Dihydroxy-2'-methoxy-6,8-di(γ,γ-dimethylallyl)isoflavanone C<sub>26</sub>H<sub>30</sub>O<sub>5</sub> (422.53). Amorphous powder,  $[\alpha]_D = -41^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antibacterial (Methicillin-Resistant *Staphylococcus aureus* (MRSA), MIC range = 25~50 μg/mL, MIC<sub>50</sub> > 50 μg/mL, MIC<sub>90</sub> > 50 μg/mL, proportion of sensitive strains at 12.5 μg/mL = 0/13). Source: *Erythrina zeyheri* (root). Ref: 3451.

**7356 Eryzerin C**

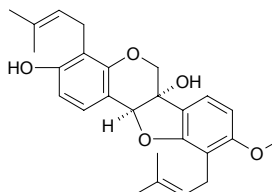
(3R)-7,2',4'-Trihydroxy-6,8-di(γ,γ-dimethylallyl)isoflavan C<sub>25</sub>H<sub>30</sub>O<sub>4</sub> (394.52). Amorphous powder,  $[\alpha]_D = -9^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antibacterial (Methicillin-Resistant *Staphylococcus aureus* (MRSA), MIC range = 3.13~6.25 μg/mL, MIC<sub>50</sub> = 6.25 μg/mL, MIC<sub>90</sub> = 6.25 μg/mL, proportion of sensitive strains at 12.5 μg/mL = 13/13). Source: *Erythrina zeyheri* (root). Ref: 3451.

**7357 Eryzerin D**

2',4'-Dihydroxy-8-γ,γ-dimethylallyl-2''-dimethylpyrano-[5,6:6,7]isoflavan C<sub>25</sub>H<sub>28</sub>O<sub>4</sub> (392.50). Amorphous powder,  $[\alpha]_D = +3^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antibacterial (Methicillin-Resistant *Staphylococcus aureus* (MRSA), MIC range = 6.25~12.5 μg/mL, MIC<sub>50</sub> = 12.5 μg/mL, MIC<sub>90</sub> = 12.5 μg/mL, proportion of sensitive strains at 12.5 μg/mL = 13/13). Source: *Erythrina zeyheri* (root). Ref: 3451.

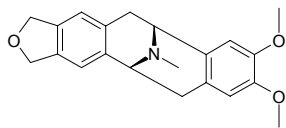
**7358 Eryzerin E**

(6aS,11aS)-3,6a-Dihydroxy-9-methoxy-4,10-di(γ,γ-dimethylallyl)pterocarpan C<sub>26</sub>H<sub>30</sub>O<sub>5</sub> (422.53). Amorphous powder,  $[\alpha]_D = -87^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antibacterial (Methicillin-Resistant *Staphylococcus aureus* (MRSA), MIC range = 6.25~25 μg/mL, MIC<sub>50</sub> = 6.25 μg/mL, MIC<sub>90</sub> = 12.5 μg/mL, proportion of sensitive strains at 12.5 μg/mL = 12/13). Source: *Erythrina zeyheri* (root). Ref: 3451.

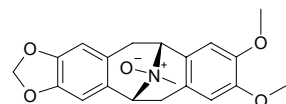


**7359 (+)-Eschscholtzidine**

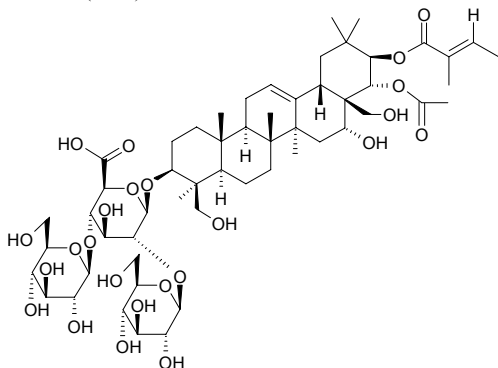
$C_{21}H_{23}NO_3$  (337.42). Source: HOU KE GUI *Cryptocarya chinensis* (wood). Ref: 3092.

**7360 (+)-Eschscholtzidine-N-oxide**

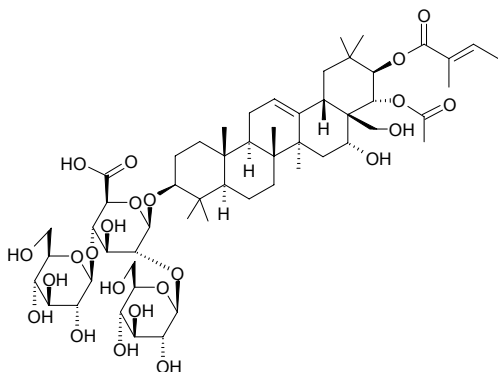
$C_{20}H_{21}NO_5$  (355.39). Colorless needles (MeOH), mp 193~194°C,  $[\alpha]_D^{25} = +145.3^\circ$  ( $c = 0.1278$ , MeOH). Source: HOU KE GUI *Cryptocarya chinensis* (wood). Ref: 3092.

**7361 Escin Ia**

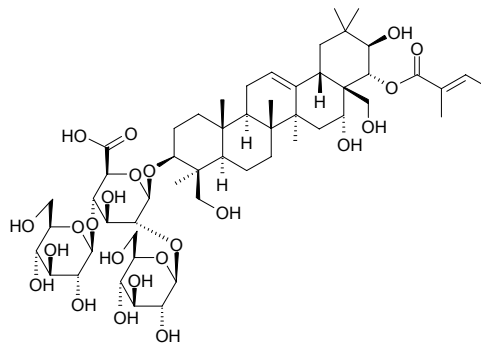
21-O-Tigloyl-22-O-acetylprotoaescigenin-3-O- $[\beta$ -D-glucopyranosyl(1→2)] $[\beta$ -D-glucopyranosyl(1→4)]- $\beta$ -D-glucopyranosiduronic acid  $C_{55}H_{86}O_{24}$  (1131.28). Pharm: Anti-inflammatory (mus, assay of Dimethyl benzene-induced inflammation, dose 30mg/kg, InRt = 79.3%, control Dexamethasone, dose 1mg/kg, InRt = 55.6%). Source: QI YE SHU *Aesculus chinensis* (seeds). Ref: 2578.

**7362 Escin IIIa**

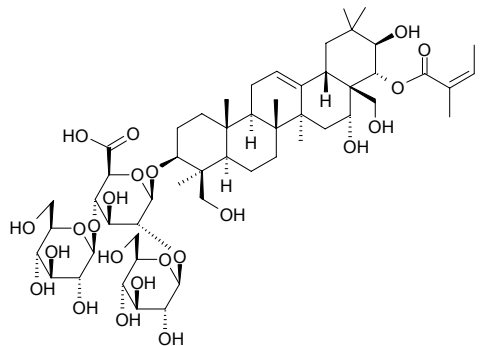
$C_{55}H_{86}O_{23}$  (1115.28). White amorphous powder,  $[\alpha]_D^{25} = -53.3^\circ$  ( $c = 0.90$ , MeOH). Source: QI YE SHU *Aesculus chinensis* (seed). Ref: 3528.

**7363 Escin IVg**

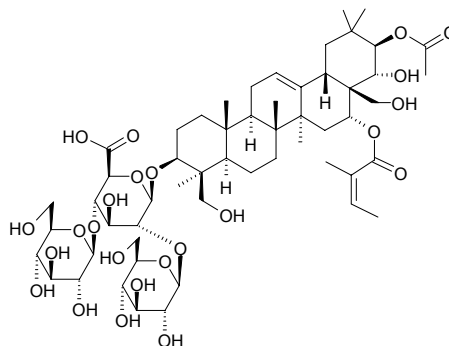
22-Tigloylprotoaescigenin 3-O- $[\beta$ -D-glucopyranosyl(1→2)] $[\beta$ -D-glucopyranosyl(1→4)]- $\beta$ -D-glucopyranosiduronic acid  $C_{53}H_{84}O_{23}$  (1089.25). White amorphous powder,  $[\alpha]_D^{25} = -25.0^\circ$  ( $c = 1.00$ , MeOH). Source: QI YE SHU *Aesculus chinensis* (seed). Ref: 3528.

**7364 Escin IVh**

22-Angeloylprotoaescigenin 3-O- $[\beta$ -D-glucopyranosyl(1→2)] $[\beta$ -D-glucopyranosyl(1→4)]- $\beta$ -D-glucopyranosiduronic acid  $C_{53}H_{84}O_{23}$  (1089.25). White amorphous powder,  $[\alpha]_D^{25} = -60^\circ$  ( $c = 1.05$ , MeOH). Source: QI YE SHU *Aesculus chinensis* (seed). Ref: 3528.

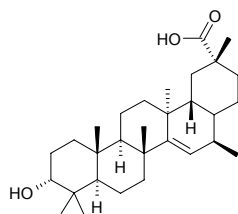
**7365 Escin VIb**

16-Angeloyl-21-acetylprotoaescigenin 3-O- $[\beta$ -D-glucopyranosyl(1→2)] $[\beta$ -D-glucopyranosyl(1→4)]- $\beta$ -D-glucopyranosiduronic acid  $C_{55}H_{86}O_{24}$  (1131.28). White amorphous powder,  $[\alpha]_D^{25} = -55^\circ$  ( $c = 1.00$ , MeOH). Source: QI YE SHU *Aesculus chinensis* (seed). Ref: 3528.

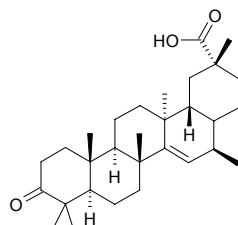


**7366 Esculentoic acid A**

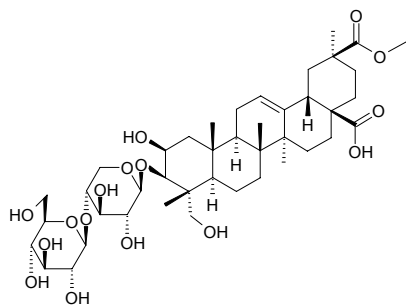
$C_{30}H_{48}O_3$  (456.72). Colorless powder, mp 248~251°C,  $[\alpha]_D^{25} = -16.4^\circ$  ( $c = 0.64$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (A2780 ovarian cancer cell line,  $IC_{50} = 6.4\text{mg/mL}$ , marginally active). **Source:** MU SHU DI SHANG BU FEN *Manihot esculenta*. **Ref:** 5379.

**7367 Esculentoic acid B**

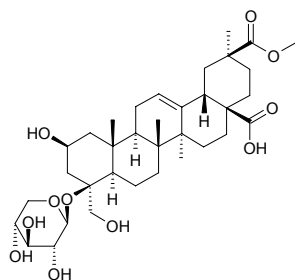
$C_{30}H_{46}O_3$  (454.70). Colorless needles, mp 276~278°C,  $[\alpha]_D^{25} = +10.6^\circ$  ( $c = 0.48$ ,  $CHCl_3$ :MeOH = 1:1). **Pharm:** Cytotoxic (A2780 ovarian cancer cell line,  $IC_{50} = 4.8\text{mg/mL}$ , marginally active). **Source:** MU SHU DI SHANG BU FEN *Manihot esculenta*. **Ref:** 5379.

**7368 Esculentoside A**

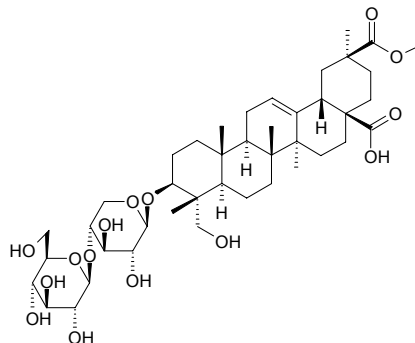
Phytolaccoside E [65497-07-6]  $C_{42}H_{66}O_{16}$  (826.98). Powder, mp 257~258°C,  $[\alpha]_D^{21} = +51.3^\circ$  ( $c = 0.99$ , EtOH). **Source:** MEI SHANG LU *Phytolacca americana* [Syn. *Phytolacca decandra*] (dried root: content = 0.86%<sup>[5523]</sup>), SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*] (dried root: mean content of 11 origins = 0.37%<sup>[5523]</sup>). **Ref:** 660, 1521, 1535, 5523.

**7369 Esculentoside B**

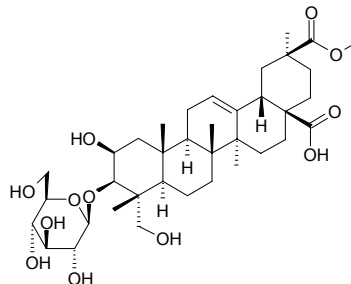
$C_{35}H_{54}O_{11}$  (650.81). **Source:** SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*]. **Ref:** 1535.

**7370 Esculentoside C**

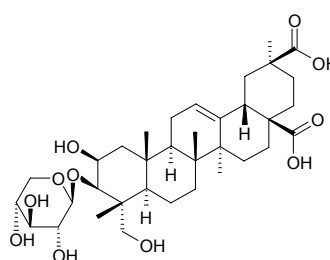
Phytolaccoside D [65931-92-2]  $C_{42}H_{66}O_{15}$  (810.99). mp 220~222°C,  $[\alpha]_D = +40^\circ$  ( $c = 0.3$ , MeOH). **Pharm:** Anti-inflammatory. **Source:** MEI SHANG LU *Phytolacca americana* [Syn. *Phytolacca decandra*], SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*]. **Ref:** 1535, 3106, 3108.

**7371 Esculentoside D**

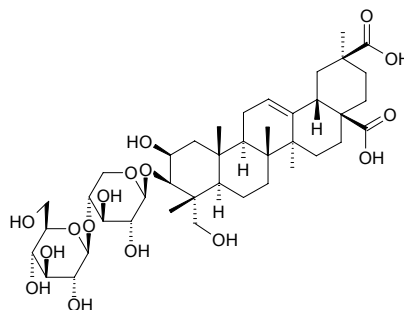
$C_{37}H_{58}O_{12}$  (694.87). **Source:** SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*]. **Ref:** 1535.

**7372 Esculentoside E**

[65949-36-7]  $C_{35}H_{54}O_{11}$  (650.81). **Source:** SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*]. **Ref:** 1536.

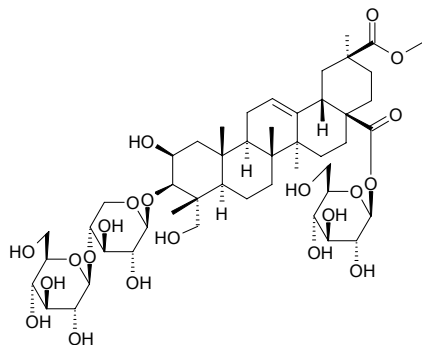
**7373 Esculentoside F**

[95263-31-3]  $C_{41}H_{64}O_{16}$  (812.96). **Source:** SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*]. **Ref:** 1536.

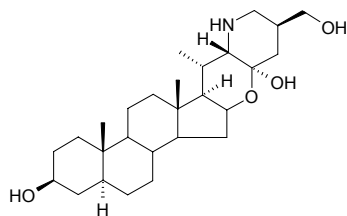


**7374 Esculentoside H**

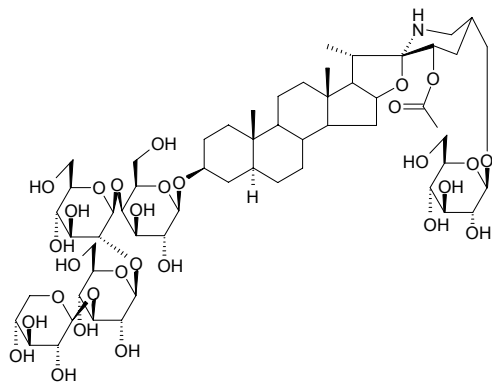
Phytolaccasaponin B [66656-92-6]  $C_{48}H_{76}O_{21}$  (989.13). Needles +3H<sub>2</sub>O, mp 218~220°C,  $[\alpha]_D^{29} = +38.3^\circ$  ( $c = 0.93$ , EtOH). Source: MEI SHANG LU *Phytolacca americana* [Syn. *Phytolacca decandra*], SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*]. Ref: 1521, 1537.

**7375 Esculeogenin B**

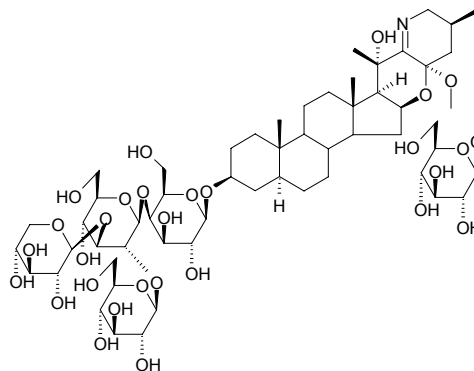
(5 $\alpha$ ,22*S*,23*R*,25*S*)-22,26-Epimino-16 $\beta$ ,23-epoxy-3 $\beta$ ,23,27-trihydroxycholestan e  $C_{27}H_{45}NO_4$  (447.66). Amorphous powder,  $[\alpha]_D = -96.2^\circ$  ( $c = 0.05$ , pyridine). Source: FAN QIE *Lycopersicon esculentum*. Ref: 4484.

**7376 Esculeoside A**

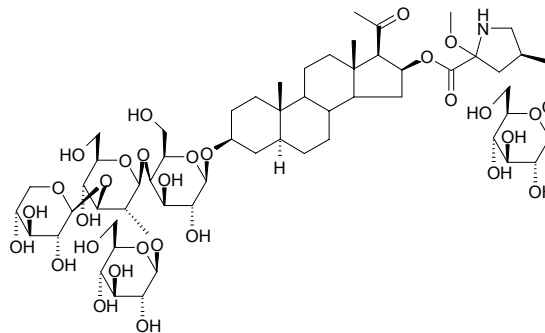
$C_{58}H_{95}NO_{29}$  (1270.39). white powder,  $[\alpha]_D = -52.5^\circ$  (MeOH). Pharm: Cytotoxic (MCF7 cells,  $IC_{50} = 24.5\mu\text{mol/L}$ , control Tomatine,  $IC_{50} = 15\mu\text{mol/L}$ , cytotoxicity of compounds was measured using the WST-8 proliferation reagent, see M. Ishiyama, et al., *Talanta*, 1999, 44, 1299). Source: FAN QIE *Lycopersicon esculentum*. Ref: 4317.

**7377 Esculeoside C**

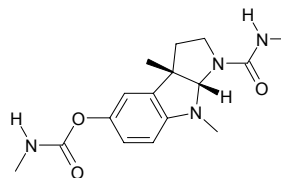
3-*O*- $\beta$ -Lycotetraosyl(5*S*,25*S*)-22,26-epimino-16 $\beta$ ,23-epoxy-23 $\alpha$ -methoxy-22(*N*)-ene-3 $\beta$ ,20 $\alpha$ ,27-trihydroxycholestane 27-*O*- $\beta$ -*D*-glucopyranoside  $C_{57}H_{93}NO_{29}$  (1256.37). Amorphous powder,  $[\alpha]_D^{24} = -56.7^\circ$  ( $c = 0.9$ , pyridine). Source: YING TAO FAN QIE *Lycopersicon esculentum* var. *cerasiforme* (ripe fruit: yield = 0.00009%fw). Ref: 1453.

**7378 Esculeoside D**

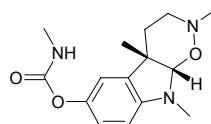
3-*O*- $\beta$ -Lycotetraosyl 3 $\beta$ ,16 $\beta$ -dihydroxy-5 $\alpha$ -pregn-20-one 16-*O*-[(4*S*)-2,5-epimino-2-methoxy-4-( $\beta$ -*D*-glucopyranosyloxy) methyl-pentanoic acid]-ester  $C_{57}H_{93}NO_{30}$  (1272.37). Amorphous powder,  $[\alpha]_D^{24} = -20.7^\circ$  ( $c = 1.0$ , pyridine). Source: YING TAO FAN QIE *Lycopersicon esculentum* var. *cerasiforme* (ripe fruit: yield = 0.00009%fw). Ref: 1453.

**7379 Eseramine**

[6091-57-2]  $C_{16}H_{22}N_4O_3$  (318.38). Pharm: Cholinesterase inhibitor. Source: DU BIAN DOU *Physostigma venenosum*. Ref: 658.

**7380 Eseridine**

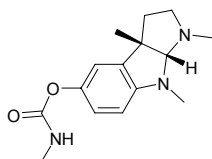
Geneserine [25573-43-7]  $C_{15}H_{21}N_3O_3$  (291.35). Pharm: Cholinesterase inhibitor. Source: DU BIAN DOU *Physostigma venenosum*. Ref: 658.



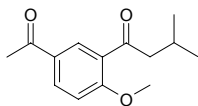


**7381 Eserine**

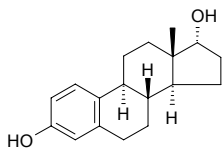
Physostigmine; Cogmine; Physostol [57-47-6]  $C_{15}H_{21}N_3O_2$  (275.35). Trapezoidal half-prismatic crystals (ether or benzene), mp 105–106°C,  $[\alpha]_D^{17} = -76^\circ$  ( $c = 1.3$ , chloroform),  $[\alpha]_D^{25} = -120^\circ$  (benzene), soluble in ethanol, benzene, chloroform, slightly soluble in water.<sup>[5507]</sup> **Pharm:** BChE inhibitor ( $IC_{50} = (0.04 \pm 0.0001) \mu\text{mol/L}$ <sup>[2563]</sup>,  $IC_{50} = (0.857 \pm 0.008) \mu\text{mol/L}$ <sup>[4217]</sup>,  $IC_{50} = (0.875 \pm 0.008) \mu\text{mol/L}$ <sup>[5216]</sup>); BChE inhibitor (horse serum BChE,  $IC_{50} = (0.857 \pm 0.008) \mu\text{mol/L}$ <sup>[4241]</sup>); AChE inhibitor ( $IC_{50} = (0.41 \pm 0.001) \mu\text{mol/L}$ <sup>[4217]</sup>,  $IC_{50} = (0.041 \pm 0.001) \mu\text{mol/L}$ <sup>[5216]</sup>); AChE inhibitor (electric eel AChE,  $IC_{50} = (0.041 \pm 0.001) \mu\text{mol/L}$ <sup>[4241]</sup>); antidote (poisoning from anticholinergic); used in treatment of glaucoma (0.2%–0.5%) and myoparalysis<sup>[658]</sup>;  $LD_{50}$  (mus, ip) = 2.5 mg/kg<sup>[658]</sup>. **Source:** DU BIAN DOU *Physostigma venenosum* (in 1864, isolated from the plant for the first time<sup>[5507]</sup>; in 1969, isolated from the plant by R.K.Hill, et al.<sup>[5505]</sup>). **Ref:** 658, 2563, 4217, 4241, 5216, 5505, 5507.

**7382 Espeleton**

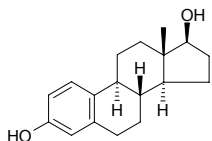
$C_{14}H_{18}O_3$  (234.30). **Pharm:** Antifungal (*Trichophyton mentagrophytes* ATCC28185, MIC = 100  $\mu\text{g/mL}$ , control Miconazole, MIC = 8  $\mu\text{g/mL}$ ; *Trichophyton rubrum* ATCC28188, MIC = 100  $\mu\text{g/mL}$ , Miconazole, MIC = 8  $\mu\text{g/mL}$ ). **Source:** *Eupatorium aschenbornianum*. **Ref:** 5472.

**7383  $\alpha$ -Estradiol**

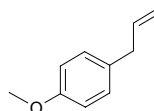
[50-28-2]  $C_{18}H_{24}O_2$  (272.39). mp 223°C. **Pharm:** Promotes normal growth of female sexual organs and secondary sex characters. **Source:** LU RONG *Cervus nippon*; *Cervus elaphus*, SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*, ZI HE CHE *Homo sapiens*. **Ref:** 2, 658, 5501.

**7384  $\beta$ -Estradiol**

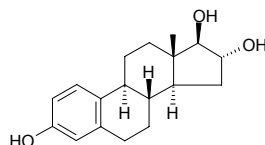
17 $\beta$ -Oestradiol [57-91-0]  $C_{18}H_{24}O_2$  (272.39). mp 178°C. **Pharm:** Promotes normal growth of female sexual organs and secondary sex characters. **Source:** BAI FAN DOU *Phaseolus vulgaris*, LU RONG *Cervus nippon*; *Cervus elaphus*, SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*, ZI HE CHE *Homo sapiens*. **Ref:** 2, 658, 5501.

**7385 Estragole**

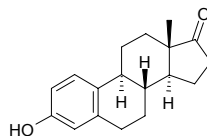
4-Methoxyallylbenzene [140-67-0]  $C_{10}H_{12}O$  (148.21). bp 215–216°C, bp 102°C/16 mmHg. **Pharm:** Antibacterial; antispasmodic; leukopoietic; promotes liver regeneration; sedative;  $LD_{50}$  (mus, orl) = 4000 mg/kg. **Source:** HUA JIAO *Zanthoxylum bungeanum*, HUI XIANG *Foeniculum vulgare*, QIAN HU *Angelica decursiva* [Syn. *Peucedanum decursivum*], SHUI HUI XIANG *Limnophila rugosa*, XI XIN *Asarum sieboldii*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum*, HUO XIANG *Agastache rugosus*, BA JIAO HUI XIANG *Illicium verum*, OU ZHOU CHI SONG *Pinus sylvestris*, RI BEN XIN YI *Magnolia kobus*. **Ref:** 2, 4, 6, 658, 660, 1521.

**7386 Estriol**

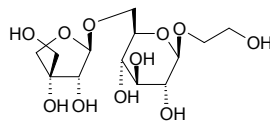
Estratriol [50-27-1]  $C_{18}H_{24}O_3$  (288.39). mp 282–283°C. **Pharm:** Leukopoietic (promotes growth of white blood cells); used in treatment of menopathy and female climacteric syndrome. **Source:** ZI HE CHE *Homo sapiens*. **Ref:** 5, 6, 658.

**7387 Estrone**

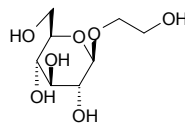
3-Hydroxy-1,3,5(10)-estratrien-17-one [53-16-7]  $C_{18}H_{22}O_2$  (270.37). Crystals (acetone), mp ( $\pm$ ) 251–254°C, mp (+) 254.5–256.0°C,  $[\alpha]_D^{25} = +158$ –168° (dioxane). **Pharm:** Estrogenic activity. **Source:** LU RONG *Cervus nippon*; *Cervus elaphus*, SUAN SHI LIU *Punica granatum*, WU LOU ZI *Phoenix dactylifera*, ZI HE CHE *Homo sapiens*, YUE JI SHI LIU *Punica granatum* cv. *nana*, YE ZI *Cocos nucifera* (fruit; the compound was isolated from the plant by A. Butenandt et al. in 1938)<sup>[5505]</sup>. **Ref:** 6, 658, 5501, 5505.

**7388 Ethane-1,2-diol 1-O- $\beta$ -D-apiofuranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside**

$C_{13}H_{24}O_{11}$  (356.33). Colorless syrup,  $[\alpha]_D^{21} = -47^\circ$  ( $c = 0.7$ , MeOH). **Source:** ZI RAN QIN *Cuminum cyminum* (fruit). **Ref:** 3395.

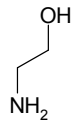
**7389 Ethane-1,2-diol 1-O- $\beta$ -D-glucopyranoside**

$C_8H_{16}O_7$  (224.21). Colorless syrup,  $[\alpha]_D^{21} = -17^\circ$  ( $c = 0.6$ , MeOH). **Source:** HUI QIN *Pimpinella anisum* (fruit). **Ref:** 3402.

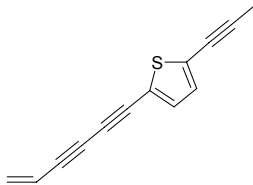


**7390 Ethanolamine**

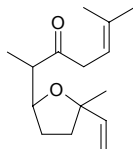
2-Aminoethanol [141-43-5]  $C_2H_7NO$  (61.08). bp 171°C. Source: XI JIAO *Rhinoceros unicornis*; *Rhinoceros sondaicus*; *Rhinoceros sumatrensis*. Ref: 6.

**7391 2-(Ethenylbutadiynyl)-5-(propinyl)-thiophene**

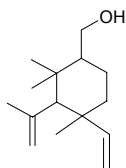
$C_{13}H_8S$  (196.27). Source: MO LI HUA *Jasminum sambac*. Ref: 6.

**7392 2-(5-Ethenyl-5-methyl-2-tetrahydrofuranyl)-6-methyl-5-hepten-3-one**

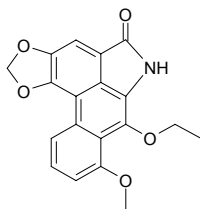
$C_{15}H_{24}O_2$  (236.36). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.

**7393 4-Ethenyl-2,2,4-trimethyl-3-(1-methylethenyl)-cyclohexane-methanol**

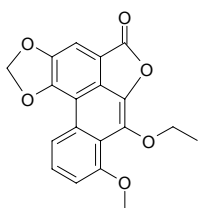
$C_{15}H_{26}O$  (222.37). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

**7394 9-Ethoxy-aristolactam**

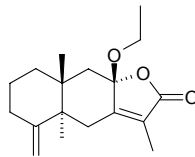
$C_{19}H_{15}NO_5$  (337.34). Source: MIAN MAO MA DOU LING *Aristolochia mollissima*. Ref: 127.

**7395 9-Ethoxy-aristolactone**

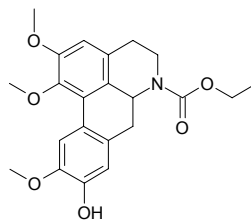
9-Ethoxy-aristololide  $C_{19}H_{14}O_6$  (338.32). Source: MIAN MAO MA DOU LING *Aristolochia mollissima*. Ref: 127.

**7396 8β-Ethoxy atractylenolide III**

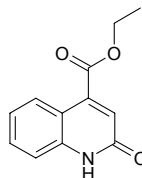
$C_{18}H_{26}O_3$  (290.41). Source: BAI ZHU *Atractylodes macrocephala* [Syn. *Atractylis macrocephala*]. Ref: 2.

**7397 N-Ethoxycarbonyllaurotetanine**

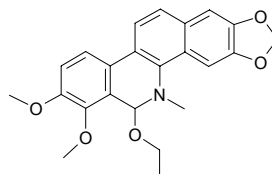
$C_{22}H_{25}NO_6$  (399.45). Yellowish powder. Source: XIA YE SHAN HU JIAO *Lindera angustifolia* (root). Ref: 4875.

**7398 4-Ethoxycarbonyl-2-quinolinone**

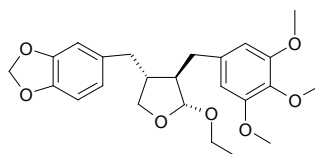
[5466-27-3]  $C_{12}H_{11}NO_3$  (217.23). Colorless acicular crystals, mp 208–209°C. Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. Ref: 2, 156.

**7399 Ethoxychelerythrine**

$C_{23}H_{23}NO_5$  (393.44). White lamellar crystals (ammonia absolute ethanol), mp 207–208°C; Pharm: Cytotoxic (Ehrlich ascites carcinoma cells)<sup>[5369]</sup>; antineoplastic (cervical carcinoma, thyroid carcinoma); antibacterial; anti-inflammatory (used in treatment of cervicitis). Source: BO LUO HUI *Macleaya cordata*. Ref: 658, 5369.

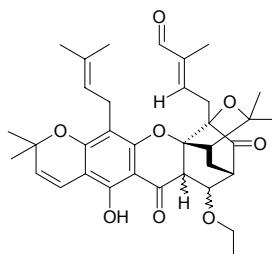
**7400 Ethoxyclusin**

$C_{24}H_{30}O_7$  (430.50). Pharm: CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4,  $IC_{50} = 0.44\mu\text{mol/L}$ ; CYP2D6,  $IC_{50} = 87.9\mu\text{mol/L}$ ; control Ketoconazole, CYP3A4,  $IC_{50} = 0.72\mu\text{mol/L}$ ; control Quinidine, CYP2D6,  $IC_{50} = 0.082\mu\text{mol/L}$ ). Source: BI CHENG QIE *Piper cubeba* (fruit: yield = 0.00005%dw). Ref: 4797.

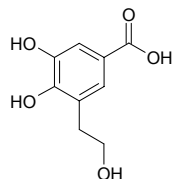


**7401 Ethoxydihydroisomoreollin**

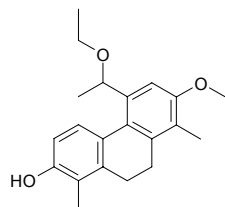
$C_{35}H_{42}O_8$  (590.72). mp 143°C. Source: TENG HUANG *Garcinia morella*. Ref: 6.

**7402 3-Ethoxy-4,5-dihydroxy-benzoic acid**

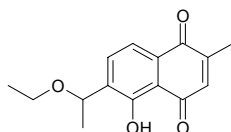
$C_9H_{10}O_5$  (198.18). White powder, mp > 300°C. Source: AN MO LE *Phyllanthus emblica*. Ref: 2434.

**7403 5-(1-Ethoxy-ethyl)-2-hydroxy-7-methoxy-1,8-dimethyl-9,10-dihydrophenanthrene**

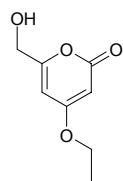
$C_{21}H_{26}O_3$  (326.44). Source: JIAN DENG XIN CAO *Juncus acutus*. Ref: 1965.

**7404 6-(1-Ethoxyethyl)plumbagin**

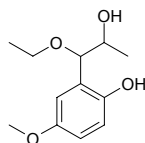
$C_{15}H_{16}O_4$  (260.29). Orange needles (hexane), mp 73°C,  $[\alpha]_D^{30} = -0.06^\circ$  ( $c = 0.36$ ,  $CHCl_3$ ). Pharm: Ichthyotoxin (MLC = 0.9mg/L, control Juglone, MLC = 0.2mg/L). Source: HAI SHI *Diospyros maritima* (fruit). Ref: 4185.

**7405 4-Ethoxy-6-hydroxymethyl- $\alpha$ -pyrone**

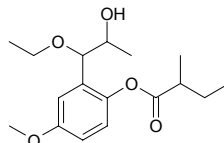
$C_8H_{10}O_4$  (170.17). White needles, mp 94.5~96.8°C. Pharm: DPPH scavenger ( $SC_{50} > 100\mu\text{mol/L}$ )<sup>[4247]</sup>; antioxidant (superoxide anion radical scavenger, superoxide dismutase method,  $IC_{50}$  for Formazan formation activity  $> 100\mu\text{mol/L}$ )<sup>[4247]</sup>. Source: XIAN REN ZHANG *Opuntia dillenii* (fresh stem; yield = 0.00013%)<sup>[4247]</sup>. Ref: 2468, 4247.

**7406 2-(1-Ethoxy-2-hydroxy)propyl-4-methoxyphenol**

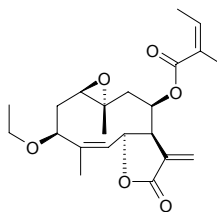
$C_{12}H_{18}O_4$  (226.27). Colorless liquid. Source: YANG HONG SHAN *Pimpinella thelungiana*. Ref: 371.

**7407 2-(1-Ethoxy-2-hydroxy)propyl-4-methoxyphenol-2-methyl-butyrat**

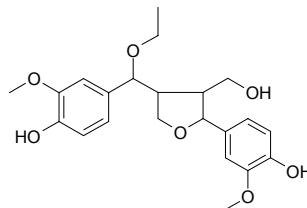
$C_{17}H_{26}O_5$  (310.39). Colorless liquid. Source: YANG HONG SHAN *Pimpinella thelungiana*. Ref: 371.

**7408 3 $\beta$ -Ethoxy-leptocarpin**

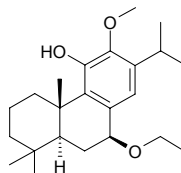
$C_{22}H_{30}O_6$  (390.48). Source: *Viguiera puruana* (aerial parts). Ref: 5090.

**7409 4-[1-Ethoxyl-1-(4'-hydroxy-3'-methoxy)benzyl]methyl-2-(4-hydroxy-3-methoxy)benzyl-3-hydroxymethyl-tetrahydro-furan**

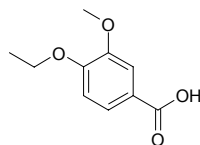
$C_{22}H_{28}O_7$  (404.46). White powder, mp 114~116°C. Source: CAO YE BAI JIANG *Patrinia scabra*. Ref: 2467.

**7410 7 $\beta$ -Ethoxy-12-methoxy-8,11,13-abietatrien-11-ol**

$C_{23}H_{36}O_3$  (360.54). Source: DU SONG SHI *Juniperus rigida*. Ref: 6.

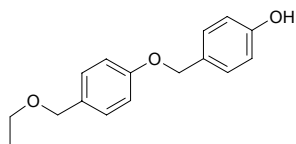
**7411 4-Ethoxy-3-methoxybenzoic acid**

$C_{10}H_{12}O_4$  (196.20). Source: FEN CHA DANG GUI *Angelica furcijuga* (flower). Ref: 4454.

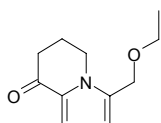


**7412 4-Ethoxymethylphenyl-4'-hydroxybenzylether**

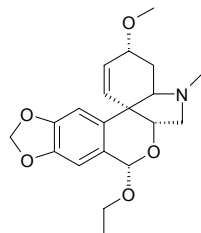
$C_{16}H_{18}O_3$  (258.32). Source: TIAN MA *Gastrodia elata*. Ref: 2.

**7413 3-Ethoxymethyl-5,6,7,8-tetrahydro-8-indolizinone**

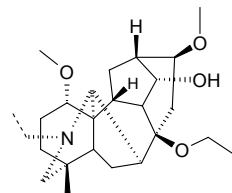
$C_{11}H_{15}NO_2$  (193.25). Pharm: Antifungal (*Penicillium avellaneum* UC-4376, MIA = 250.0 $\mu$ g/disk, control Amphotericin B, MIA = 0.08 $\mu$ g/disk); antibacterial (*Staphylococcus aureus*, MIA = 400.0 $\mu$ g/disk, control Rifampicin, MIA = 1.0 $\mu$ g/disk; *Mycobacterium tuberculosis*, MIA = 300.0 $\mu$ g/disk, Rifampicin, MIA = 1.0 $\mu$ g/disk; *Streptococcus pneumoniae*, MIA = 300.0 $\mu$ g/disk, Rifampicin, MIA = 1.0 $\mu$ g/disk). Source: DIAN HUANG JING *Polygonatum kingianum* (dried rhizome). Ref: 5484.

**7414 8 $\alpha$ -Ethoxyprocridelline**

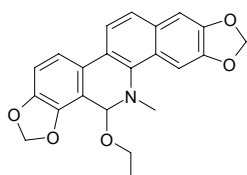
$C_{20}H_{25}NO_5$  (359.43). Amorphous,  $[\alpha]_D^{28} = +116.6^\circ$  ( $c = 0.06$ ,  $CHCl_3$ ). Pharm: AChE inhibitor ( $IC_{50} = (1145 \pm 87) \mu mol/L$ , control Galanthamine,  $IC_{50} = (1.9 \pm 0.2) \mu mol/L$ )<sup>[4952]</sup>. Source: LIN JING ZHONG ZI WEN SHU LAN *Crinum bulbispermum*. Ref: 2369, 4952.

**7415 8-Ethoxysachaonitine**

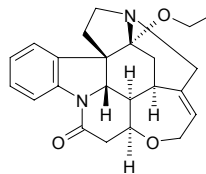
$C_{23}H_{41}NO_4$  (419.61). Amorphous solid,  $[\alpha]_D^{25} = -17.6^\circ$  ( $c = 0.08$ ,  $CHCl_3$ ). Source: BAN HUA WU TOU *Aconitum variegatum* (aerial parts). Ref: 5270.

**7416 Ethoxysanguinarine**

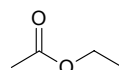
$C_{22}H_{19}NO_5$  (377.40). White lamellar crystals (ammonia absolute ethanol), mp 210–211°C. Pharm: Antibacterial; antineoplastic (cervical carcinoma, thyroid carcinoma); anti-inflammatory (used in treatment of cervicitis). Source: BO LUO HUI *Macleaya cordata*. Ref: 658.

**7417 16-Ethoxystrychnine**

$C_{23}H_{26}N_2O_3$  (378.48). mp 224–225°C. Source: LV SONG GUO *Strychnos ignatii*. Ref: 6.

**7418 Ethyl acetate**

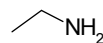
Ethyl ethanoate [141-78-6]  $C_4H_8O_2$  (88.11). bp 77.1°C. Source: JIU LIQUOR, SHENG JIANG *Zingiber officinale*. Ref: 2.

**7419 Ethyl aldehyde**

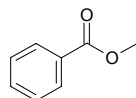
Acetaldehyde [75-07-0]  $C_2H_4O$  (44.05). Source: HAI JIU CAI *Triglochin maritimum*, NIU BANG GEN *Arctium lappa*. Ref: 6.

**7420 Ethylamine**

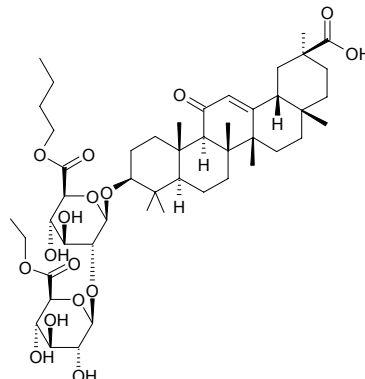
Aminoethane [75-04-7]  $C_2H_7N$  (45.08). bp 16.6°C. Source: LING MAO XIANG *Viverra zibetha*. Ref: 6.

**7421 Ethyl benzoate**

Ethyl benzenecarboxylate [93-89-0]  $C_9H_{10}O_2$  (150.18). bp 212.9°C. Source: XUAN CAO GEN *Hemerocallis fulva*. Ref: 6.

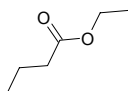
**7422 Ethyl-n-butyl-uralsaponin A esters**

3 $\beta$ -Hydroxy-11-oxo-olean-12-en-30-oic acid-3-*O*- $\beta$ -*D*-(*n*-butyl-glucuronopyranosyl ester)-(1 $\rightarrow$ 2)- $\beta$ -*D*-(ethyl-glucuronopyranosyl ester)  $C_{48}H_{74}O_{16}$  (907.12). Colorless powder, mp 178°C. Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 2148.

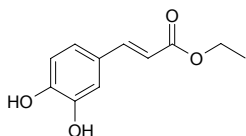


**7423 Ethyl butyrate**

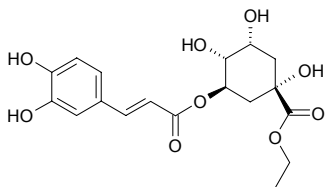
Ethyl butanoate [105-54-4]  $C_6H_{12}O_2$  (116.16). bp 119.9°C. Source: JIU Liquor. Ref: 6.

**7424 Ethyl caffeate**

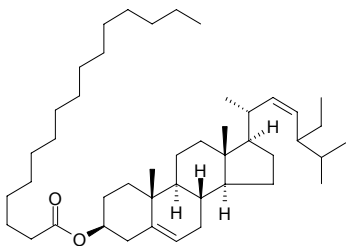
$C_{11}H_{12}O_4$  (208.22). Colorless acicular crystals, mp 138~140°C (acetone). Source: JIA BAI HE *Notholirion hyacinthinum* [Syn. *Notholirion bulbuliferum*], NAN CHUAN GUAN CHUN HUA *Microtoena prainiana* (stem: 0.00014%dw)<sup>[4752]</sup>. Ref: 663, 4752.

**7425 Ethyl chlorogenate**

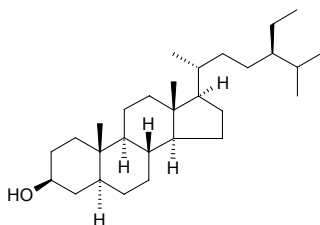
$C_{18}H_{22}O_9$  (382.37). Cream white acicular crystals (acetone), mp 106~110°C. Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.00073%dw)<sup>[4723]</sup>, XI NAN REN DONG *Lonicera bournei*. Ref: 439, 4723.

**7426 24-Ethylcholesta-5,22-dien-3β-ol palmitic acid ester**

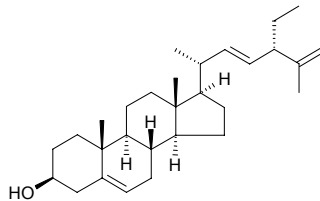
Stigmasteryl palmitate  $C_{45}H_{78}O_2$  (651.12). Colorless columnar crystals ( $CH_3OH$ ), mp 193~194°C. Source: WU WEN ZI BEI TAI *Plagiochasma intermedium*, CHE QIAN *Plantago asiatica*, HUI XIANG GEN *Foeniculum vulgare*. Ref: 6, 857.

**7427 24α-Ethyl-5α-cholestan-3β-ol**

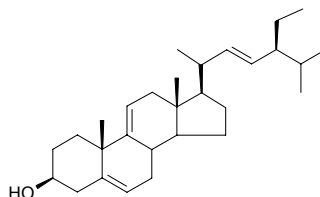
[83-45-4]  $C_{29}H_{52}O$  (416.74). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**7428 (24S)-Ethylcholesta-5,22,25-trien-3β-ol**

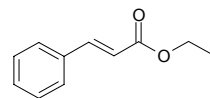
$C_{29}H_{46}O$  (410.69). mp 152~153°C. Source: CHOU MO LI *Clerodendron fragrans*, SHUI HU MAN *Clerodendron inerme*. Ref: 6.

**7429 24β-Ethylcholesta-5,9(11),22-trien-3β-ol**

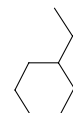
$C_{29}H_{46}O$  (410.69). Crystalline solid, mp 158~160°C,  $[\alpha]_D = -47^\circ$  ( $CHCl_3$ ). Source: KU LANG SHU *Clerodendrum inerme*. Ref: 3382.

**7430 Ethylcinnamate**

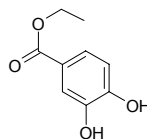
*trans*-Ethyl cinnamate; Ethyl *trans*-3-phenylpropenoate [103-36-6]  $C_{11}H_{12}O_2$  (176.22). bp (*cis*) 125°C/12mmHg. (*trans*) 271°C. Source: ROU GUI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*] (bark: content = 0.042%)<sup>[5508]</sup>, SHAN NAI *Kaempferia galanga*. Ref: 6, 5508.

**7431 Ethylcyclohexane**

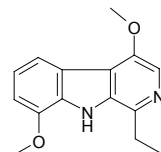
[1678-91-7]  $C_8H_{16}$  (112.22). Source: SHAN ZHA *Crataegus pinnatifida*. Ref: 2.

**7432 Ethyl 3,4-dihydroxybenzoate**

$C_9H_{10}O_4$  (182.18). Pharm: DPPH scavenger ( $SC_{50} = 4.9\mu mol/L$ )<sup>[4247]</sup>, antioxidant (superoxide anion radical scavenger, superoxide dismutase method,  $IC_{50}$  for Formazan formation activity =  $11\mu mol/L$ ). Source: XIAN REN ZHANG *Opuntia dillenii* (fresh stem: yield = 0.00014%). Ref: 4247.

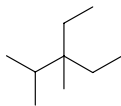
**7433 1-Ethyl-4,8-dimethoxy-β-carboline**

$C_{15}H_{16}N_2O_2$  (256.31). Source: KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12.

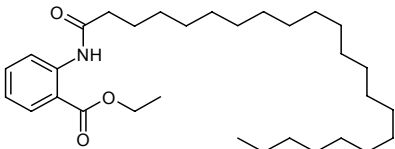


**7434 3-Ethyl-2,3-dimethyl-pentane**

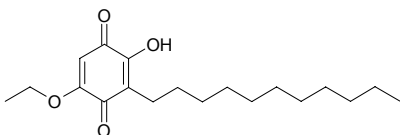
$C_9H_{20}$  (128.26). Source: SHAN ZHA *Crataegus pinnatifida*. Ref: 2.

**7435 Ethyl *N*-docosanoylanthranilate****7436**

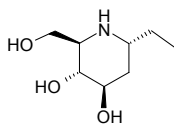
[209523-04-6]  $C_{31}H_{53}NO_3$  (487.77). Source: XI ZANG QIN JIAO *Gentiana tibetica*. Ref: 702.

**7436 5-*O*-Ethylembelin**

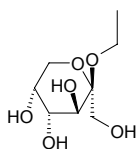
$C_{19}H_{30}O_4$  (322.45). Orange crystals, mp 59–60°C. Pharm: Cytotoxic (*in vitro*, HL-60,  $IC_{50}$  = 2.5 μg/mL; Bel7402,  $IC_{50}$  = 2.7 μg/mL; HeLa,  $IC_{50}$  = 3.9 μg/mL; U937,  $IC_{50}$  = 1.3 μg/mL; control Colchicine, HL-60,  $IC_{50}$  = 1.6 μg/mL; Bel7402,  $IC_{50}$  = 0.4 μg/mL; HeLa,  $IC_{50}$  = 0.1 μg/mL; U937,  $IC_{50}$  = 0.1 μg/mL)<sup>[4746]</sup>. Source: LA ZHU GUO *Aegiceras corniculatum* (stem and twig; yield = 0.00050%). Ref: 4746.

**7437 α-1-*C*-Ethyl-fagomine**

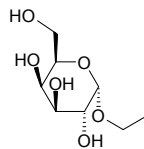
$C_8H_{17}NO_3$  (175.23).  $[\alpha]_D^{25}$  = +45.7° ( $c$  = 0.71,  $H_2O$ ). Pharm: Enzymes inhibitor ( $\alpha$ -glucosidase: rice,  $IC_{50}$  = 490 μmol/L, control DMDP,  $IC_{50}$  = 300 μmol/L; yeast,  $IC_{50}$  > 1000 μmol/L, DMDP,  $IC_{50}$  = 3.6 μmol/L; rat intestinal maltase,  $IC_{50}$  > 1000 μmol/L, DMDP,  $IC_{50}$  = 290 μmol/L;  $\beta$ -glucosidase, almond,  $IC_{50}$  > 1000 μmol/L, DMDP,  $IC_{50}$  = 13 μmol/L;  $\beta$ -galactosidase, bovine liver,  $IC_{50}$  = 29 μmol/L, DMDP,  $IC_{50}$  = 2.2 μmol/L; trehalase, porcine kidney,  $IC_{50}$  > 1000 μmol/L, DMDP,  $IC_{50}$  = 200 μmol/L; amyloglucosidase, *Aspergillus niger*,  $IC_{50}$  > 1000 μmol/L, DMDP,  $IC_{50}$  = 19 μmol/L). Source: RI BEN SAN YE SHA SEN *Adenophora triphylla* var. *japonica* (fresh whole herbs). Ref: 3915.

**7438 Ethyl-α-*D*-fructoside**

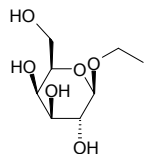
$C_8H_{16}O_6$  (208.21). Source: DANG SHEN *Codonopsis pilosula*. Ref: 2.

**7439 1-Ethyl-α-*D*-galactoside**

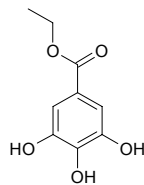
Eleutheroside C  $C_8H_{16}O_6$  (208.21). mp 142°C. Source: CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*], CI WU JIA PI *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*]. Ref: 2, 6.

**7440 1-Ethyl-β-*D*-galactoside**

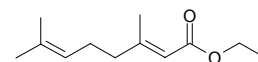
$C_8H_{16}O_6$  (208.21). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*]. Ref: 2.

**7441 Ethyl gallate**

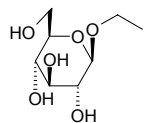
Gallic acid ethyl ester [831-61-8]  $C_9H_{10}O_5$  (198.18). White rhombic crystals (chloroform–methanol), mp 155–158°C. Pharm: Antibacterial (*Bacillus dysenteriae*); antifibrotic; platelet aggregation inhibitor (*in vitro*); inhibits OH-free radicals damaging AT-III (Antithrombase-III) (0.6 mmol/L, InRt = 48.5%); collagenase inhibitor (hmn *in vitro*,  $IC_{50}$  = 2 μg/mL); analgesic. Source: A LA BO JIN HE HUAN *Acacia arabica*, CHA TIAO QI *Acer ginnala*, DA HUA HONG JING TIAN *Rhodiola crenulata* [Syn. *Rhodiola euryphylla*], HE ZI *Terminalia chebula*, LI SHU PI *Castanea mollissima*, MU MIAN HUA *Bombax malabaricum* [Syn. *Gossampinus malabarica*], SHE PU TAO *Ampelopsis brevipedunculata*, SHENG DI HONG JING TIAN *Rhodiola sacra*, WAN SHOU JU *Tagetes erecta*, XI XI LI QI SHU *Rhus coriaria*. Ref: 552, 660, 900.

**7442 Ethyl geranate**

[13058-12-3]  $C_{12}H_{20}O_2$  (196.29). bp 110–120°C. Source: YUN XIANG CAO *Cymbopogon distans*. Ref: 6.

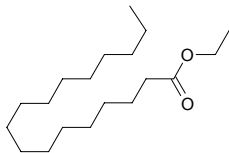
**7443 Ethyl β-*D*-glucopyranoside**

$C_8H_{16}O_6$  (208.21). Colorless syrup,  $[\alpha]_D^{23}$  = –26°. Source: BEI SHA SHEN *Glehnia littoralis* (fruit), SHI LUO ZI *Anethum graveolens* (fruit). Ref: 3525, 4177.

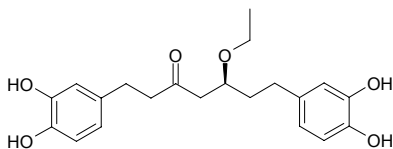


**7444 Ethyl heptadecanoate**

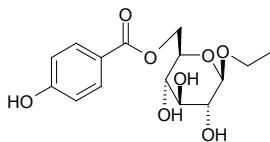
Ethyl margarate [14010-23-2] C<sub>19</sub>H<sub>38</sub>O<sub>2</sub> (298.51). Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. Ref: 2.

**7445 5-O-Ethyl-hirsutanonol**

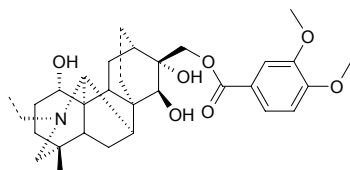
C<sub>21</sub>H<sub>26</sub>O<sub>6</sub> (374.44). Pharm: Antioxidant (superoxide radical scavenger, IC<sub>50</sub> = 2.9 μmol/L; DPPH scavenger, IC<sub>50</sub> = 4.3 μmol/L). Source: CHI YANG *Alnus japonica* (leaf). Ref: 4535.

**7446 Ethyl (6-O-p-hydroxybenzoyl)-β-D-glucopyranoside**

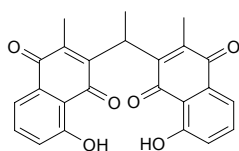
C<sub>15</sub>H<sub>20</sub>O<sub>8</sub> (328.32). Source: ZI YE *Catalpa ovata* (fallen leaf). Ref: 4290.

**7447 N-Ethyl-1α-hydroxy-17-veratrolydictizine**

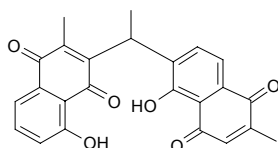
C<sub>31</sub>H<sub>43</sub>NO<sub>7</sub> (541.69). Amorphous solid, [α]<sub>D</sub><sup>25</sup> = +30.0° (c = 0.11, CHCl<sub>3</sub>). Source: BAN HUA WU TOU *Aconitum variegatum* (aerial parts). Ref: 5270.

**7448 Ethylidene-3,3'-biplumbagin**

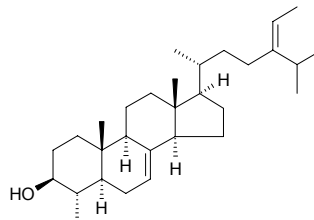
C<sub>24</sub>H<sub>18</sub>O<sub>6</sub> (402.41). Orange-red plates (hexane-C<sub>6</sub>H<sub>6</sub>), mp 200~201°C. Pharm: Ichthyotoxin (MLC > 10mg/L, control Juglone, MLC = 0.2mg/L). Source: HAI SHI *Diospyros maritima* (fruit). Ref: 4185.

**7449 Ethylidene-3,6'-biplumbagin**

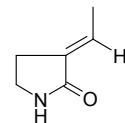
C<sub>24</sub>H<sub>18</sub>O<sub>6</sub> (402.41). Orange-red plates (hexane-C<sub>6</sub>H<sub>6</sub>), mp 185~186°C, [α]<sub>D</sub><sup>28</sup> = -1.50° (c = 1.28, CHCl<sub>3</sub>). Pharm: Ichthyotoxin (MLC > 10mg/L, control Juglone, MLC = 0.2mg/L). Source: HAI SHI *Diospyros maritima* (fruit). Ref: 4185.

**7450 24-Ethylidene lophenol**

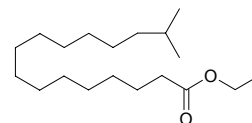
[474-40-8] C<sub>30</sub>H<sub>50</sub>O (426.73). mp 162~164°C. Source: GAN ZHE *Saccharum sinensis*. Ref: 6.

**7451 trans-3-Ethylidene-2-pyrrolidinone**

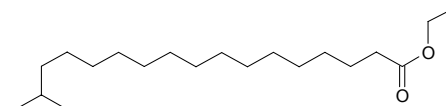
Corydalactam [930-94-9] C<sub>6</sub>H<sub>9</sub>NO (111.14). mp 172~174°C. Source: JU HUA HUANG LIAN *Corydalis pallida*. Ref: 6.

**7452 Ethylisoheptadecanoate**

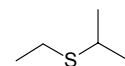
C<sub>19</sub>H<sub>38</sub>O<sub>2</sub> (298.51). Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. Ref: 2.

**7453 Ethylisooctadecanoate**

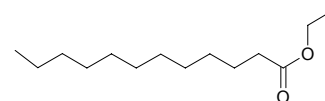
C<sub>20</sub>H<sub>40</sub>O<sub>2</sub> (312.54). Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. Ref: 2.

**7454 Ethylisopropyl sulfide**

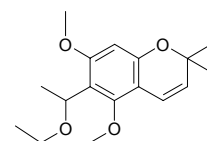
2-Methyl-3-thiapentane [5145-99-3] C<sub>5</sub>H<sub>12</sub>S (104.22). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

**7455 Ethyllaurate**

Ethyl dodecanoate [106-33-2] C<sub>14</sub>H<sub>28</sub>O<sub>2</sub> (228.38). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 2.

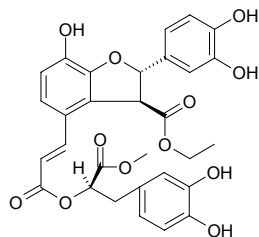
**7456 Ethylleptol B**

C<sub>17</sub>H<sub>24</sub>O<sub>4</sub> (292.38). Yellowish oleaginous substances, [α]<sub>D</sub><sup>10</sup> = +3.26° (c = 0.307, Me<sub>2</sub>CO). Source: SAN CHA KU *Evodia lepta* [Syn. *Ilex lepta*]. Ref: 393.

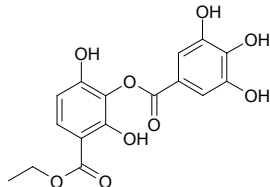


**7457 Ethyl lithospermate**

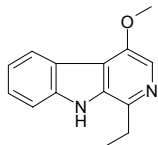
$C_{30}H_{28}O_{12}$  (580.55). Brown yellow gum,  $[\alpha]_D^{23} = +65.6^\circ$  ( $c = 0.25$ , MeOH). **Pharm:** Antioxidant (DPPH scavenger,  $IC_{50} = 0.1028$ mmol/L, control Propyl gallate,  $IC_{50} = 0.03$ mol/L; superoxide radical inhibitor, inactive, control Propyl gallate,  $IC_{50} = 0.106$ mmol/L; iron chelating assay, inactive, control Propyl gallate,  $IC_{50} = 0.064$ mmol/L). **Source:** MING XIAN HUA ZHU CHANG ZHU LIU LI CAO *Lindelofia stylosa* (aerial parts). **Ref:** 4533.

**7458 Ethyl-m-digallate**

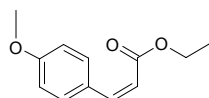
$C_{16}H_{14}O_9$  (350.28). Colorless colloid. **Source:** LUAN SHU *Koelreuteria paniculata*. **Ref:** 677.

**7459 1-Ethyl-4-methoxy-β-carboline**

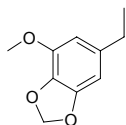
$C_{14}H_{14}N_2O$  (226.28). **Source:** KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. **Ref:** 12.

**7460 Ethyl p-methoxy-cis-cinnamate**

$C_{12}H_{14}O_3$  (206.24). **Pharm:** Anti-cancer-promoted activity ( $IC_{50} = 5.5$ μmol/L). **Source:** SHAN NAI *Kaempferia galanga*. **Ref:** 2252.

**7461 5-Ethyl-1-methoxy-2,3-methylenedioxybenzene**

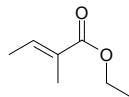
$C_{10}H_{12}O_3$  (180.21). **Source:** *Plagiochila rutilans*. **Ref:** 5144.

**7462 1-Ethyl-2-methylbenzene**

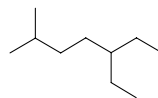
[611-14-3]  $C_9H_{12}$  (120.20). **Source:** SHAN ZHA *Crataegus pinnatifida*. **Ref:** 2.

**7463 Ethyl-2-methylbut-2-enoate**

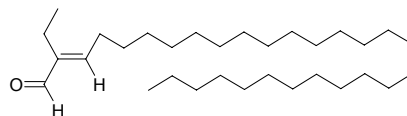
[5837-78-5]  $C_7H_{12}O_2$  (128.17). **Pharm:** Flavorant. **Source:** WEN PO *Cydonia oblonga*. **Ref:** 658.

**7464 5-Ethyl-2-methylheptane**

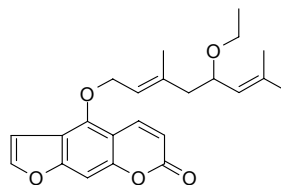
$C_{10}H_{22}$  (142.29). **Source:** SHAN ZHA *Crataegus pinnatifida*. **Ref:** 2.

**7465 (2E)-2-Ethyl-2-nonacosenal**

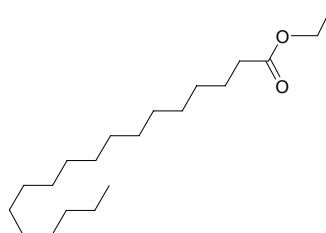
$C_{31}H_{60}O$  (448.82). White crystals, mp 65~66°C. **Source:** JI DAN SHEN *Codonopsis convolvulacea*. **Ref:** 779.

**7466 Ethylnotopterol**

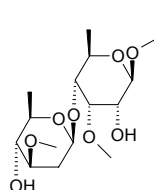
5-(2E,5E)-3,7-Dimethyl-7-[(1-ethoxy)ethoxy-2,5-octadienyloxy] psoralen  $C_{23}H_{26}O_5$  (328.26). Colorless ropy substance. **Source:** QIANG HUO *Notopterygium incisum*. **Ref:** 325.

**7467 Ethyloctadecanoate**

Ethyl stearate [111-61-5]  $C_{20}H_{40}O_2$  (312.54). **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. **Ref:** 2.

**7468 Ethyl O-β-D-oleandropyranosyl-(1→4)-O-3-O-methyl-6-deoxy-β-D-allopyranoside**

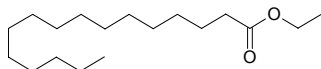
$C_{16}H_{30}O_8$  (350.41). **Source:** ROU LEI NIU NAI CAI *Marsdenia roylei*. **Ref:** 1875.



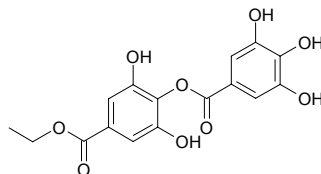


**7469 Ethylpalmitate**

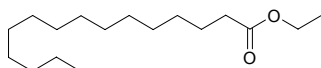
Ethyl hexadecanoate [628-97-7] C<sub>18</sub>H<sub>36</sub>O<sub>2</sub> (284.49). mp (α) 24°C, (β) 19.3°C. Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*], DANG SHEN *Codonopsis pilosula*, JIN YIN HUA *Lonicera japonica*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2, 6, 638.

**7470 Ethyl-p-digallate**

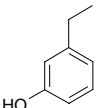
C<sub>16</sub>H<sub>14</sub>O<sub>9</sub> (350.28). Colorless colloid. Source: LUAN SHU *Koelreuteria paniculata*. Ref: 677.

**7471 Ethylpentadecanoate**

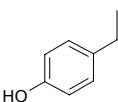
[41114-00-5] C<sub>17</sub>H<sub>34</sub>O<sub>2</sub> (270.46). Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. Ref: 2.

**7472 m-Ethylphenol**

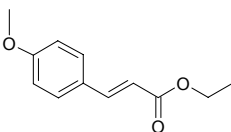
C<sub>8</sub>H<sub>10</sub>O (122.17). Source: DANG GUI *Angelica sinensis*, YIN CHEN HAO *Artemisia capillaris*. Ref: 2, 660.

**7473 p-Ethylphenol**

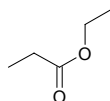
C<sub>8</sub>H<sub>10</sub>O (122.17). Source: DANG GUI *Angelica sinensis*, YIN CHEN HAO *Artemisia capillaris*. Ref: 2, 660.

**7474 Ethyl-p-methoxycinnamate**

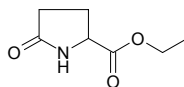
p-Methoxycinnamic acid ethyl ether [24393-56-4] C<sub>12</sub>H<sub>14</sub>O<sub>3</sub> (206.24). Pharm: Cytotoxic (HeLa). Source: SHAN NAI *Kaempferia galanga*, TU LIANG JIANG *Hedychium spicatum*. Ref: 6, 658.

**7475 Ethylpropionate**

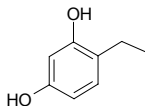
[105-37-3] C<sub>5</sub>H<sub>10</sub>O<sub>2</sub> (102.13). Source: SHENG JIANG *Zingiber officinale*, CHUAN XU DUAN *Dipsacus asperoides*. Ref: 2, 660.

**7476 Ethyl pyroglutamate**

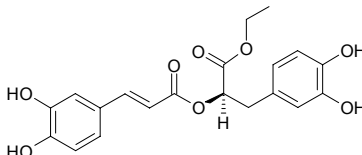
C<sub>7</sub>H<sub>11</sub>NO<sub>3</sub> (157.17). Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2487.

**7477 4-Ethylresorcinol**

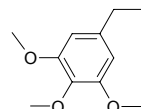
[2896-60-8] C<sub>8</sub>H<sub>10</sub>O<sub>2</sub> (138.17). Source: DANG GUI *Angelica sinensis*. Ref: 2.

**7478 Ethyl rosmarinate**

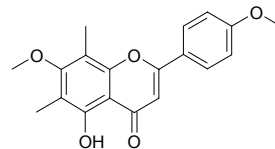
C<sub>20</sub>H<sub>20</sub>O<sub>8</sub> (388.38). Pharm: Antioxidant (DPPH scavenger, IC<sub>50</sub> = 0.0412mmol/L, control Propyl gallate, IC<sub>50</sub> = 0.03mol/L; superoxide radical inhibitor, inactive, control Propyl gallate, IC<sub>50</sub> = 0.106mmol/L; iron chelating assay, inactive, control Propyl gallate, IC<sub>50</sub> = 0.064mmol/L). Source: MING XIAN HUA ZHU CHANG ZHU LIU LI CAO *Lindelofia stylosa* (aerial parts). Ref: 4533.

**7479 5-Ethyl-1,2,3-trimethoxybenzene**

C<sub>11</sub>H<sub>16</sub>O<sub>3</sub> (196.25). Source: *Plagiochila rutilans*. Ref: 5144.

**7480 Eucalyptin**

[3122-88-1] C<sub>19</sub>H<sub>18</sub>O<sub>5</sub> (326.35). mp 198.5~200.0°C. Source: AN YE *Eucalyptus globulus*, NING MENG AN YE *Eucalyptus citriodora*. Ref: 6.

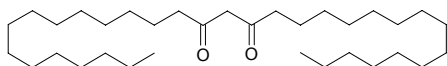
**7481 Eucalyptol**

[470-82-6] C<sub>10</sub>H<sub>18</sub>O (154.25). Colorless liquid, camphor-like odor, mp 1.5°C, bp 176~177°C. Pharm: Analgesic; antiasthmatic; antibacterial; anti-inflammatory; anthelmintic; antipyretic. Source: AN YE *Eucalyptus globulus* (95.13% in volatile oil), BAI QIAN CENG *Melaleuca leucadendra*, BIN HAO *Artemisia maritima*, DA YE AN YE *Eucalyptus robusta*, GAO LIANG JIANG *Alpinia officinarum* (dried rhizome: mean content of 6 origins = 0.35%)<sup>[5508]</sup>, LUO LE *Ocimum basilicum*, MEI GUO XIA LA MEI *Calycanthus floridus*, QING GUO *Canarium album*, SHU ZHI BAN RI HUA *Csitis ladaniferus*, TU QIANG HUO *Hedychium coronarium*, ZHANG MU *Cinnamomum camphora* (wood: content = 0.21%)<sup>[5501]</sup>, ZI SUI HUAI *Amorpha fruticosa*. Ref: 661, 5501, 5508.

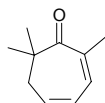


**7482 Eucalyptus wax**

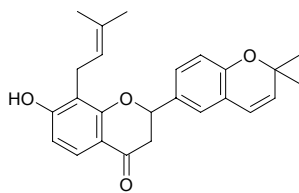
$C_{33}H_{64}O_2$  (492.88). **Pharm:** Used in treatment of diseases in lung and bronchus. **Source:** *Eucalyptus* sp., *Acacia* sp. **Ref:** 658.

**7483 Eucarvone**

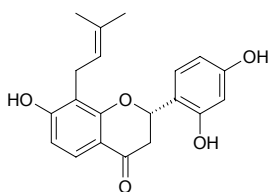
[503-93-5]  $C_{10}H_{14}O$  (150.22). bp 99~100°C/22mmHg. **Source:** LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum*. **Ref:** 2, 660, 1521.

**7484 Euchrenone**

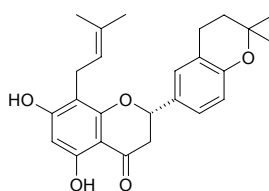
$C_{25}H_{26}O_4$  (390.48). **Source:** GUANG GUO GAN CAO *Glycyrrhiza glabra*. **Ref:** 2431.

**7485 (2S)-Euchrenone A<sub>7</sub>**

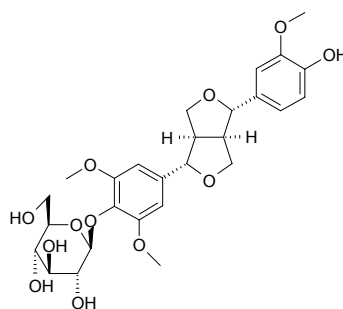
Anticancer Flavonoid PMV70P691-90  $C_{20}H_{20}O_5$  (340.38). **Pharm:** Aromatase inhibitor (*in vitro*,  $IC_{50} = 3.4 \mu\text{mol/L}$ ; control Aminoglutethimide,  $IC_{50} = 6.4 \mu\text{mol/L}$ )<sup>[3090, 5038]</sup>. **Source:** GOU SHU *Broussonetia papyrifera*. **Ref:** 3090, 5038.

**7486 (2S)-Euchrenone A<sub>16</sub>**

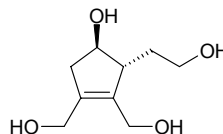
5,7-Dihydroxy-8-( $\gamma,\gamma$ -dimethylallyl)-[6''',6'''-dimethyl-4''',5'''-dihydropyrano-(2''',3''':4',3')] -flavanone  $C_{25}H_{28}O_5$  (408.50). Yellow oil,  $[\alpha]_D^{24} = -213^\circ$  ( $c = 0.05$ ,  $CHCl_3$ ). **Source:** TAI WAN SHAN DOU GEN *Euchresta formosana*. **Ref:** 1977.

**7487 Eucommin A**

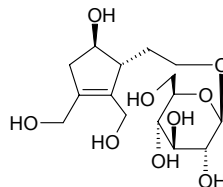
(+)-Medioresinol monoglucoside [99633-12-2]  $C_{27}H_{34}O_{12}$  (550.56). **Pharm:** Immunomodulator **Source:** DU ZHONG *Eucommia ulmoides*, HUANG CHAN *Allemanda neritifolia*. **Ref:** 2.

**7488 Eucommiol**

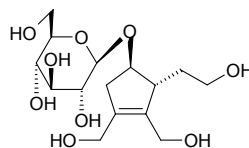
[55930-44-4]  $C_9H_{16}O_4$  (188.23). **Source:** DU ZHONG *Eucommia ulmoides*. **Ref:** 2.

**7489 Eucommioside I**

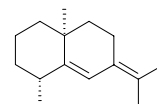
[82225-01-2]  $C_{15}H_{26}O_9$  (350.37). **Source:** DU ZHONG *Eucommia ulmoides*. **Ref:** 2.

**7490 Eucommioside-II**

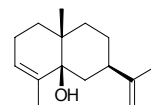
[94190-27-9]  $C_{15}H_{26}O_9$  (350.37). **Source:** DU ZHONG *Eucommia ulmoides*. **Ref:** 2.

**7491 (+)-Eudesma-5,7(11)-diene**

$C_{15}H_{24}$  (204.36). Colorless oil. **Source:** *Tritomaria polita* (essential oil). **Ref:** 3446.

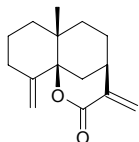
**7492 (-)-Eudesma-3,11-dien-5-ol**

$C_{15}H_{24}O$  (220.36). **Source:** KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides* (essential oil). **Ref:** 5129.

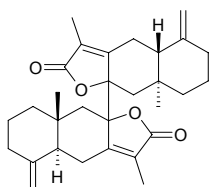


**7493 Eudesma-4(15),11(13)-dien-12,5 $\beta$ -olide**

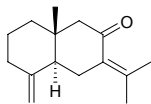
C<sub>15</sub>H<sub>20</sub>O<sub>2</sub> (232.33). Source: LIU LENG JU *Laggera alata* (aerial parts: yield = 0.00083%dw). Ref: 4709.

**7494 Bis-[8-eudesma-4(15),7(11)-dien-12,8 $\alpha$ -olide]**

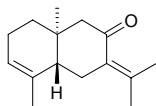
C<sub>30</sub>H<sub>38</sub>O<sub>4</sub> (462.63). Colorless prisms, mp 211~212°C (CH<sub>2</sub>Cl<sub>2</sub>), 210~212°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +255.8° (*c* = 0.122, CHCl<sub>3</sub>). Source: *Trattinickia rhoifolia* (resin). Ref: 4213.

**7495 (+)-Eudesma-4(15),7(11)-dien-8-one**

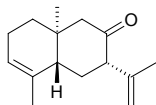
Selina-4(15),7(11)-dien-8-one; Selina-4(14),7(11)-dien-8-one C<sub>15</sub>H<sub>22</sub>O (218.34). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +92.6° (*c* = 0.034, methanol). Pharm: Anti-inflammatory (mus, reduces blood capillary permeability caused by acetic acid, 300mg/kg, InRt = (31.6±11.9)%). Source: BAI ZHU *Atractylodes macrocephala* [Syn. *Atractylis macrocephala*], BEI CANG ZHU *Atractylodes chinensis*, CANG ZHU *Atractylodes lancea*, GUAN CANG ZHU *Atractylodes japonica*, SHUANG YE XI XIN *Asarum caulescens*. Ref: 660, 661.

**7496 (+)-Eudesma-3,7(11)-dien-8-one**

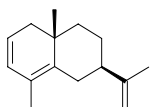
C<sub>15</sub>H<sub>22</sub>O (218.34). Colorless oil. Source: *Tritomaria polita* (essential oil). Ref: 3446.

**7497 (+)-Eudesma-3,11-dien-8-one**

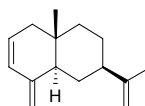
C<sub>15</sub>H<sub>22</sub>O (218.34). Colorless oil. Source: *Tritomaria polita* (essential oil). Ref: 3446.

**7498 Eudesma-2,4,11-triene**

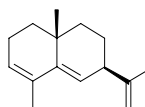
C<sub>15</sub>H<sub>22</sub> (202.34). Source: KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides* (essential oil). Ref: 5129.

**7499 (-)-Eudesma-2,4(15),11-triene**

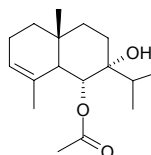
C<sub>15</sub>H<sub>22</sub> (202.34). Source: KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides* (essential oil). Ref: 5129.

**7500 Eudesma-3,5,11-triene**

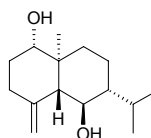
C<sub>15</sub>H<sub>22</sub> (202.34). Source: KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides* (essential oil). Ref: 5129.

**7501 (-)-Eudesm-3-ene-6 $\alpha$ -acetoxy-7 $\alpha$ -ol**

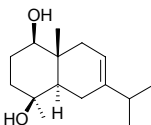
C<sub>17</sub>H<sub>28</sub>O<sub>3</sub> (280.41). Colorless needle crystals, mp 141~142°C. Source: LIE E TAI *Chiloscyphus polyanthus*. Ref: 2188.

**7502 ent-4(15)-Eudesmene-1 $\beta$ ,6 $\alpha$ -diol**

C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Amorphous, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -36.8° (*c* = 0.16, CHCl<sub>3</sub>), [ $\alpha$ ]<sub>D</sub><sup>12</sup> = -31.5° (*c* = 0.13, MeOH). Source: ZHAO WA JIA KE TAI *Jackiella javanica*. Ref: 5303.

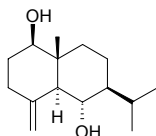
**7503 7-Eudesmene-1,4-diol**

C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Colorless plates, mp 107~109°C. Pharm: Antiplasmodial (*Plasmodium falciparum* strains, IC<sub>50</sub> = 4.17 $\mu$ g/mL, control Chloroquine, IC<sub>50</sub> = 0.0028 $\mu$ g/mL)<sup>[2383]</sup>. Source: *Reneilimia cincinnata* (fruits). Ref: 2383.

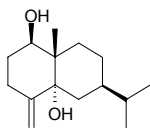


**7504 Eudesm-4(15)-ene-1 $\beta$ ,6 $\alpha$ -diol**

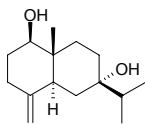
1 $\beta$ ,6 $\alpha$ -Dihydroxy-eudesman-4(15)-ene C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +4.5° (c = 0.2, CHCl<sub>3</sub>); [ $\alpha$ ]<sub>D</sub><sup>17</sup> = +7° (c = 0.50, CHCl<sub>3</sub>); White powder, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -27.1° (c = 1.47, CHCl<sub>3</sub>); colorless needles (petroleum ether-EtOAc), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +45° (c = 0.1, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (inhibits growth of Bel7402 cell, 0.0001mol/L, InRt = 29.1%, control Etoposide, InRt = 96.0%)<sup>[5073]</sup>; anti-HIV-1 inactive (*in vitro*, HOG R5)<sup>[4688]</sup>. **Source:** DIE DA LAO *Litsea verticillata* (leaf and twig: 0.00049%dw), FEI CHENG FEI PENG *Erigeron philadelphicus* (aerial parts), HUANG HUA HAO *Artemisia annua* (seed), SU MEN BAI JIU CAO *Erigeron sumatrensis* (aerial parts), YI NIAN PENG *Erigeron annuus* (aerial parts), ZHONG JIAN JIN JI ER *Caragana intermedia* (aerial parts). **Ref:** 3435, 4338, 4688, 4786, 5073.

**7505 4(15)-Eudesmene-1 $\beta$ ,5 $\alpha$ -diol**

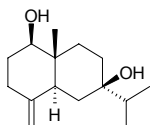
1 $\beta$ ,5 $\alpha$ -Dihydroxyeudesman-4(15)-ene C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Colorless monoclinic crystals (petroleum ether-EtOAc), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +122° (c = 0.7, CHCl<sub>3</sub>); [ $\alpha$ ]<sub>D</sub><sup>17</sup> = +30° (c = 0.10, CHCl<sub>3</sub>). **Pharm:** Antifungal (*Pyricularia oryzae* P-2b, MIC = 20 $\mu$ g/mL)<sup>[4786]</sup>; glucose consumption activity (C<sub>2</sub>C<sub>12</sub> muscle cell assay, IC = 10.7 $\mu$ g/mL; in animal tests, it showed the same effect on oral glucose tolerance in db/db mouse as metformin, MIC = 100mg/mL)<sup>[4786]</sup>. **Source:** YI NIAN PENG *Erigeron annuus* (aerial parts), ZHONG JIAN JIN JI ER *Caragana intermedia* (aerial parts). **Ref:** 4338, 4786, 5073.

**7506 4(15)-Eudesmene-1 $\beta$ ,7 $\alpha$ -diol**

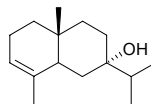
1 $\beta$ ,7 $\alpha$ -Dihydroxyeudesman-4(15)-ene C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>17</sup> = +30° (c = 0.13, CHCl<sub>3</sub>); colorless needles (petroleum ether-EtOAc), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +35° (c = 0.1, CHCl<sub>3</sub>). **Pharm:** Antifungal (*Pyricularia oryzae* P-2b, MIC = 12 $\mu$ g/mL)<sup>[4786]</sup>. **Source:** YI NIAN PENG *Erigeron annuus* (aerial parts), ZHONG JIAN JIN JI ER *Caragana intermedia* (aerial parts). **Ref:** 4786, 5073.

**7507 4(15)-Eudesmene-1 $\beta$ ,7 $\beta$ -diol**

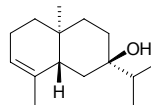
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Colorless needles (petroleum ether-EtOAc), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -12° (c = 0.1, CHCl<sub>3</sub>). **Pharm:** Antifungal (*Pyricularia oryzae* P-2b, MIC = 16 $\mu$ g/mL)<sup>[4786]</sup>. **Source:** ZHONG JIAN JIN JI ER *Caragana intermedia* (aerial parts). **Ref:** 4786.

**7508 (+)-Eudesm-3-ene-7 $\alpha$ -ol**

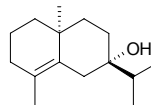
C<sub>15</sub>H<sub>26</sub>O (222.37). Greenish oil. **Source:** LIE E TAI *Chiloscyphus polyanthus*. **Ref:** 2188.

**7509 Eudesm-3-en-7-ol**

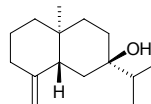
(+)-(2*R*,4*aS*,8*aR*)-1,2,3,4,4*a*,5,6,8*a*-Octahydro-4*a*,8-dimethyl-2-(1-methylethyl)-1,2-naphthalenol C<sub>15</sub>H<sub>26</sub>O (222.37). Colorless oil. **Source:** YING ZHI YE TAI *Lepidozia vitrea* (essential oil). **Ref:** 5209.

**7510 Eudesm-4-en-7 $\alpha$ -ol**

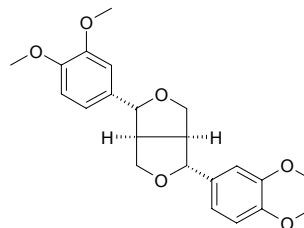
(-)-1,2,3,4,4*a*,5,6,7-Octahydro-4*a*,8-dimethyl-2-(1-methylethyl)-naphthalen-2-ol C<sub>15</sub>H<sub>26</sub>O (222.37). Colorless oil. **Source:** DONG YA ZHI YE TAI *Lepidozia fauriana* (essential oil), YING ZHI YE TAI *Lepidozia vitrea* (essential oil). **Ref:** 5209.

**7511 Eudesm-4(15)-en-7-ol**

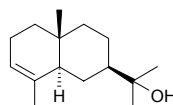
(-)-(2*R*,4*aS*,8*aR*)-Decahydro-4*a*-methyl-8-methylene-2-(1-methylethyl)-2-naphthalenol C<sub>15</sub>H<sub>26</sub>O (222.37). Colorless oil. **Source:** YING ZHI YE TAI *Lepidozia vitrea* (essential oil). **Ref:** 5209.

**7512 Eudesmin**

C<sub>22</sub>H<sub>26</sub>O<sub>6</sub> (386.45). mp 107-108°C. **Pharm:** Tuberculostatic (*in vitro*); calcium antagonist (gpg, colon bands). **Source:** BAN PI AN *Eucalyptus hemiphloia*, WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*], XI BING MU JIANG ZI *Litsea gracilipes*, ZHAI YE NAN YANG SHAN *Araucaria angustifolia*, ZHOU YE MU LAN *Magnolia praecocissima* (seed), *Haplophyllum* sp. **Ref:** 6, 658, 660, 4181.

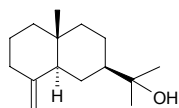
**7513  $\alpha$ -Eudesmol**

[473-16-5] C<sub>15</sub>H<sub>26</sub>O (222.37). mp 75°C, bp 156°C/10mmHg. **Source:** CANG ZHU *Atractylodes lancea*, HOU PO *Magnolia officinalis*, AO YE HOU PO *Magnolia biloba*. **Ref:** 6, 660.

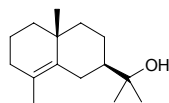


**7514  $\beta$ -Eudesmol**

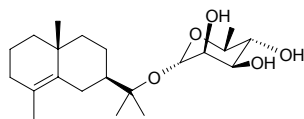
[473-15-4] C<sub>15</sub>H<sub>26</sub>O (222.37). mp 76°C. **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 $\mu$ mol/L, InRt = (98.5 $\pm$ 1.8)%, control *L*-NMMA, 100 $\mu$ mol/L, InRt = (79.2 $\pm$ 0.9)%,  $p < 0.01$ )<sup>[4150]</sup>. **Source:** AO YE HOU PO *Magnolia biloba*, BEI CANG ZHU *Atractylodes chinensis* (dried rhizome: content = 2.20%<sup>[5531]</sup>), CANG ZHU *Atractylodes lancea* (dried rhizome: content scope of 5 origins = 0.44%~1.56%, mean content = 0.84%<sup>[5531]</sup>), FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*] (root: content = 1.549% in male, content = 1.727% in female)<sup>[5501]</sup>, GAN SONG *Nardostachys chinensis*, GUAN CANG ZHU *Atractylodes japonica* (dried rhizome: content = 0.02%<sup>[5531]</sup>), HOU PO *Magnolia officinalis*, LIU SHAN *Cryptomeria fortunei*, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*], SHENG JIANG *Zingiber officinale*. **Ref:** 2, 6, 660, 4150, 5501, 5531.

**7515  $\gamma$ -Eudesmol**

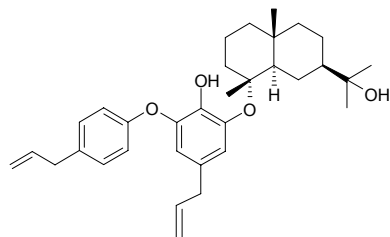
C<sub>15</sub>H<sub>26</sub>O (222.37). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 1.5 $\mu$ g/mL, Hep 2,2,15, IC<sub>50</sub> = 0.01 $\mu$ g/mL). **Source:** YI LAN *Cananga odorata* (fruit). **Ref:** 3055.

**7516  $\gamma$ -Eudesmol 11- $\alpha$ -L-rhamnoside**

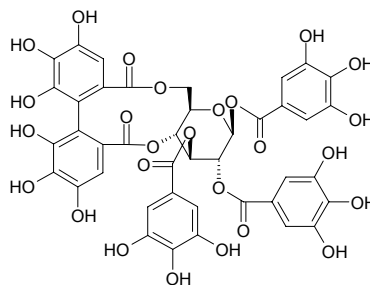
C<sub>21</sub>H<sub>36</sub>O<sub>5</sub> (368.52). Gum, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -11.5° ( $c = 0.24$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 3.9 $\mu$ g/mL, Hep2,2,15, IC<sub>50</sub> = 10.6 $\mu$ g/mL). **Source:** YI LAN *Cananga odorata* (fruit). **Ref:** 3055.

**7517 Eudesobovatol A**

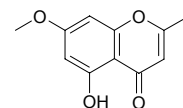
[125196-77-2] C<sub>33</sub>H<sub>44</sub>O<sub>4</sub> (504.72). **Pharm:** CNS depressant; used in treatment of neurosis and gastrointestinal disease; neurotrophic. **Source:** RI BEN HOU PO *Magnolia obovata*. **Ref:** 658.

**7518 Eugeniiin**

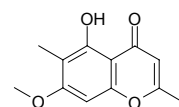
Tellimagrandin II; Cornustannin 2 [58970-75-5] C<sub>41</sub>H<sub>30</sub>O<sub>26</sub> (938.68). **Pharm:** Antiviral (herpes simplex virus); inhibits lipolysis (rat fat cells, induced by adrenaline); antioxidant (SOD-like activity, EC<sub>50</sub> = 94.8 $\mu$ mol/L, control Gallic acid, EC<sub>50</sub> = 31.7 $\mu$ mol/L, *L*-Ascorbic acid, EC<sub>50</sub> = 34.6 $\mu$ mol/L)<sup>[3408]</sup>; antioxidant (DPPH scavenger, EC<sub>50</sub> = 0.44 $\mu$ mol/L, control Gallic acid, EC<sub>50</sub> = 5.88 $\mu$ mol/L, *L*-Ascorbic acid, EC<sub>50</sub> = 6.25 $\mu$ mol/L)<sup>[3408]</sup>. **Source:** BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*], BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (fresh fruit: yield = 0.063%fw)<sup>[4695]</sup>, CHI SHAO *Paeonia lactiflora* wild, DING XIANG *Syzygium aromaticum* [Syn. *Eugenia caryophyllata*], HU TAO REN *Juglans regia*, RI BEN MA SANG *Coriaria japonica*, SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpium officinale*], XIN SHAO NA CAO *Tellima grandifolia*, *Rosa* sp., *Quercus* sp., *Fuchsia* sp. **Ref:** 2, 658, 3408, 4695.

**7519 Eugenin**

C<sub>11</sub>H<sub>10</sub>O<sub>4</sub> (206.20). **Pharm:** Cytotoxic (hmn peripheral blood T cells, dose = 5.0 $\mu$ g/mL, T cell survival rate = 98%)<sup>[3498]</sup>; immunosuppressant (inhibits IL-2 secretion costimulated by CD28, dose = 5.0 $\mu$ g/mL, InRt = 59%). **Source:** HONG CHAI HU *Bupleurum scorzonerifolium* (root). **Ref:** 3498.

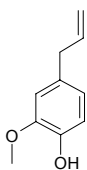
**7520 Eugenitin**

[480-12-6] C<sub>12</sub>H<sub>12</sub>O<sub>4</sub> (220.23). mp 162°C. **Source:** DING XIANG *Syzygium aromaticum* [Syn. *Eugenia caryophyllata*]. **Ref:** 6.

**7521 Eugenol**

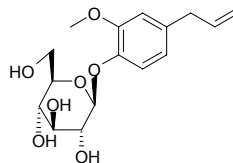
4-Allyl-2-methoxyphenol [97-53-0] C<sub>10</sub>H<sub>12</sub>O<sub>2</sub> (164.21). mp -9°C, bp 254-255°C. **Pharm:** Antibacterial (*Staphylococcus aureus*, *Klebsiella pneumoniae*, *Escherichia coli*, *Shigella shigae*, *Bacillus proteus* etc., IC = 1:2000~1:8000)<sup>[5501]</sup>; antifungal (pathogen fungi, EC = 1:8000~1:16000)<sup>[5501]</sup>; antioxidant<sup>[5501]</sup>; CNS activity (rbt, iv, anesthesia action, lowers blood pressure, inhibits respiration and anticonvulsion)<sup>[5501]</sup>; platelet aggregation inhibitor (rbt platelets induced by thrombin, 100 $\mu$ g/mL, add thrombin 0.1u/mL, AggRt = (91.9 $\pm$ 0.4)%, control AggRt = (92.6 $\pm$ 0.4)%; add AA,

100 $\mu$ mol/L, 100 $\mu$ g/mL, AggRt = (0.0 $\pm$ 0.0)%, 2 $\mu$ g/mL, AggRt = (86.3 $\pm$ 3.9)%, control AggRt = (87.8 $\pm$ 0.3)%, Aspirin 50 $\mu$ g/mL, AggRt = (11.7 $\pm$ 10.1)%; add collagen 10 $\mu$ g/mL, 100 $\mu$ g/mL, AggRt = (17.1 $\pm$ 5.6)%, 2 $\mu$ g/mL, AggRt = (88.2 $\pm$ 1.0)%, control AggRt = (89.3 $\pm$ 0.5)%, Aspirin 100 $\mu$ g/mL, AggRt = (81.3 $\pm$ 0.5)%; add PAF 2ng/mL, 100 $\mu$ g/mL, AggRt = (91.0 $\pm$ 1.0)%, control AggRt = (93.0 $\pm$ 0.6)%<sup>[4938]</sup>; antipyretic (rbt with IL-induced fever, stronger than acetyl aminophenol, antipyretic mechanism involves inhibition of PG synthesis in brain)<sup>[5501]</sup>; anti-inflammatory (rat, swollen foot model caused by carrageenan; mouse, edema on ears caused by oleum crotonis; gpg, edema on ears caused by benzoic acid)<sup>[5501]</sup>; smooth muscle relaxant (smooth muscle in blood vessel, intestine and isolated uterus, smooth muscle in gpg trachea ED<sub>50</sub> = (39 $\pm$ 5) $\mu$ mol/L, smooth muscle in gpg ileum ED<sub>50</sub> = (6.8 $\pm$ 1.0) $\mu$ g/mL, but causes constriction of rat isolated bladder)<sup>[5501]</sup>; anti-androgenic (testosterone-5 $\alpha$ -reductase inhibitor)<sup>[5501]</sup>; LD<sub>50</sub> (rat, orl) = 1.93g/kg, (rat, orl) = 2.68g/kg; (mouse, orl) = 3g/kg<sup>[5501]</sup>. **Source:** BAI CHANG *Acorus calamus*, CHA SHU *Sassafras tzumu*, CHAI HU *Bupleurum chinense*, DA LIANG JIANG *Alpinia galanga*, DING XIANG *Syzygium aromaticum* [Syn. *Eugenia caryophyllata*] (dried bud: content scope = 11.2%–15.3%<sup>[5501]</sup>, mean content = 12.49%<sup>[5508]</sup>), DU HENG *Asarum forbesii*, DUO XIANG GUO *Pimenta dioica*, FAN SHI LIU YE *Psidium guajava*, FEI LONG ZHANG XUE *Toddalia asiatica* [Syn. *Toddalia aculeata*; *Paullinia asiatica*], GAO LIANG JIANG *Alpinia officinarum*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], GUI PI *Cinnamomum japonicum*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], JIA JING JIE *Nepeta cataria*, JIAN ZI SU YE *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], JIN YIN HUA *Lonicera japonica*, JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*], JU JIANG YE *Piper betle*, KE SHI HAO *Artemisia klotzschiana*, KONG SHI CHUN *Ulva pertusa*, LUO LE *Ocimum basilicum*, MA HUA *Cannabis sativa*, MEI GUI HUA *Rosa rugosa*, MO YAO *Commiphora myrrha* [Syn. *Commiphora molmol*], ROU DOU KOU *Myristica fragrans* (kernel: content = 0.456%<sup>[5508]</sup>), SAN TIAO JIN *Cinnamomum tamala*, SANG YE *Morus alba*, SHE XIANG SHI CAO *Achillea moschata*, SHI CHANG PU *Acorus tatarinowii*, SHI ZHU *Dianthus chinensis*, SHI XIANG RU *Mosla chinensis* [Syn. *Orthodon chinensis*], SHUI XIAN HUA *Narcissus tazetta* var. *chinensis*, TAI WAN CHA MU *Sassafras randainense*, TAI WAN HU JIAO *Piper taiwanense* (stem), TIAN NIU ZHI *Origanum majorana*, XI XIN *Asarum sieboldii*, XIANG ZHANG *Cinnamomum parthenoxylum* [Syn. *Cinnamomum porrectum*], XIAO CAO WU *Delphinium yunnanense*, XIN YI *Magnolia liliflora*, YANG SHI CAO *Achillea millefolium*, YE XIANG SHU *Cestrum nocturnum*, YIN CHEN HAO *Artemisia capillaris*, YIN XING CAO *Siphonostegia chinensis*, YUE GUI ZI *Laurus nobilis*, ZHANG MU *Cinnamomum camphora*, *Ocimum* sp., occurs in many plants. **Ref:** 2, 4, 11, 638, 658, 660, 4938, 5501, 5508.



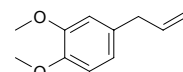
### 7522 Eugenol- $\beta$ -D-glucopyranoside

3-Hydroxyestragele- $\beta$ -D-glucopyranoside C<sub>16</sub>H<sub>22</sub>O<sub>7</sub> (326.35). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -34° (c = 0.4, MeOH). **Pharm:** Neurite outgrowth enhancer inactive (PC12D cells, nerve growth factor-mediated, 10-100 $\mu$ mol/L)<sup>[4745]</sup>. **Source:** HUI QIN *Pimpinella anisum* (fruit), SHE XIANG CAO *Thymus vulgaris*, YE GAN CAO *Scoparia dulcis* (aerial parts: yield = 0.0015%). **Ref:** 2592, 3402, 4745.



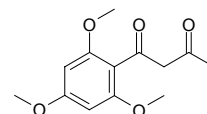
### 7523 Eugenol methyl ether

Methyl eugenol [93-15-2] C<sub>11</sub>H<sub>14</sub>O<sub>2</sub> (178.23). bp 248–249°C. **Pharm:** Antispasmodic. ; CNS depressant; antipyretic; skeletal muscle relaxant. **Source:** JU JIANG YE *Piper betle*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum*, LUO LE *Ocimum basilicum*, ROU DOU KOU *Myristica fragrans* (kernel: content = 1.052%<sup>[5508]</sup>), SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpium officinale*], SHENG JIANG *Zingiber officinale*, SHI CHANG PU *Acorus tatarinowii*, SI JING JIE BA DOU *Croton nepetaefolius*, XI XIN *Asarum sieboldii*, YIN CHEN HAO *Artemisia capillaris*, occurs in many plants (in many essential oils). **Ref:** 2, 4, 658, 660, 5501, 5508.



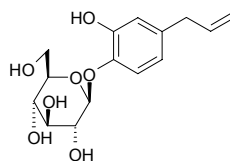
### 7524 Eugenone

[480-27-3] C<sub>13</sub>H<sub>16</sub>O<sub>5</sub> (252.27). mp 97–98°C. **Source:** DING XIANG *Syzygium aromaticum* [Syn. *Eugenia caryophyllata*]. **Ref:** 6.



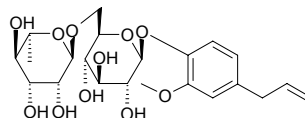
### 7525 Eugenylglucoside

3,4-Dihydroxy-allylbenzene-4-O- $\beta$ -D-glucopyranoside C<sub>15</sub>H<sub>20</sub>O<sub>7</sub> (312.32). White powder. **Source:** BAI MEI HUA *Prunus mume* (flower: yield = 0.050%fw), JIAN YE LONG XUE SHU *Dracaena cochinchinensis*. **Ref:** 2114, 4641.



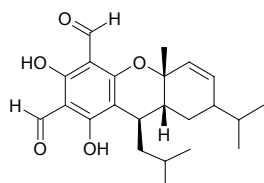
### 7526 Eugenyl- $\beta$ -rutinoside

C<sub>22</sub>H<sub>32</sub>O<sub>11</sub> (472.49). Yellow-white powder. **Source:** BO SI YI MU CAO *Leonurus persicus*. **Ref:** 2499.

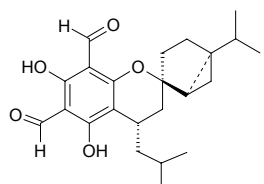


**7527 Euglobal Ia<sub>1</sub>**

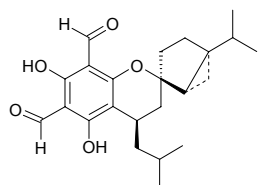
[77844-93-0] C<sub>23</sub>H<sub>30</sub>O<sub>5</sub> (386.49). **Pharm:** Inhibits granulation. **Source:** AN YE *Eucalyptus globulus*. **Ref:** 658.

**7528 Euglobal Ib**

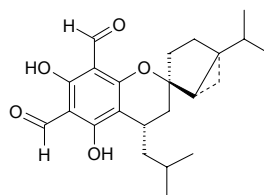
[77844-94-1] C<sub>23</sub>H<sub>30</sub>O<sub>5</sub> (386.49). Colorless acicular crystals (chloroform), mp 118~120°C, [α]<sub>D</sub><sup>20</sup> = +2.27 (*c* = 0.65, chloroform). **Pharm:** Anti-inflammatory; antineoplastic (EBV-EA induced by TPA, InRt = (70~80)% with molecular ratio of Euglobal-Ib/TPA 1000, while InRt = 50% with ratio 100). **Source:** AN YE *Eucalyptus globulus*. **Ref:** 977, 982.

**7529 Euglobal Ic**

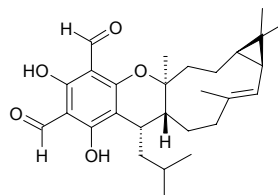
[77794-60-6] C<sub>23</sub>H<sub>30</sub>O<sub>5</sub> (386.49). Colorless rhombic crystals (ethanol), mp 108~110°C, [α]<sub>D</sub><sup>20</sup> = -3.12 (*c* = 1.0, chloroform). **Pharm:** Anti-inflammatory; antineoplastic (EBV-EA induced by TPA, InRt over 80% with molecular ratio of Euglobal-Ic/TPA 1000, while InRt = (20~30)% with ratio 100). **Source:** AN YE *Eucalyptus globulus*. **Ref:** 977, 982.

**7530 Euglobal Iia**

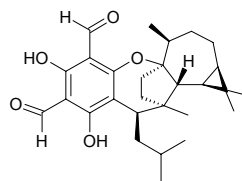
[77844-92-9] C<sub>23</sub>H<sub>30</sub>O<sub>5</sub> (386.49). Colorless rhombic crystals (chloroform), mp 115~117°C, [α]<sub>D</sub><sup>20</sup> = +26.7° (*c* = 0.7, chloroform). **Pharm:** Anti-inflammatory; antineoplastic (EBV-EA induced by TPA, InRt over 80% with molecular ratio of Euglobal-Iia/TPA 1000, while InRt (20~30)% with ratio 100). **Source:** AN YE *Eucalyptus globulus*. **Ref:** 977, 982.

**7531 Euglobal III**

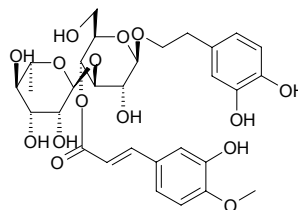
[76449-26-8] C<sub>28</sub>H<sub>38</sub>O<sub>5</sub> (454.61). Colorless acicular crystals (ethanol), mp 169~170°C, [α]<sub>D</sub><sup>20</sup> = +229° (*c* = 1.0, chloroform). **Pharm:** Anti-inflammatory; antineoplastic (EBV-EA induced by TPA, InRt = 100% with molecular ratio of Euglobal-III/TPA 1000, while InRt over 70% with ratio 500). **Source:** AN YE *Eucalyptus globulus*. **Ref:** 981, 984, 1013.

**7532 Euglobal V**

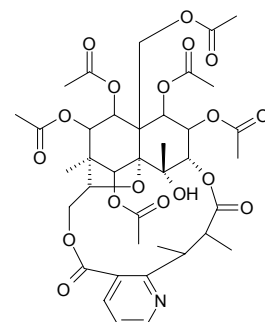
[77809-89-3] C<sub>28</sub>H<sub>38</sub>O<sub>5</sub> (454.61). Colorless rhombic crystals, mp 184~185°C, [α]<sub>D</sub><sup>20</sup> = -206° (*c* = 1, chloroform). **Pharm:** Anti-inflammatory; antineoplastic (EBV-EA induced by TPA, InRt = 80% with molecular ratio of Euglobal-V/TPA 1000, while InRt over 40% with ratio 500). **Source:** AN YE *Eucalyptus globulus*. **Ref:** 981, 984, 1042.

**7533 Eukovoside**

C<sub>30</sub>H<sub>38</sub>O<sub>15</sub> (638.63). Amorphous powder. **Source:** DUAN XIAN XIAO MI CAO *Euphrasia regelii*. **Ref:** 2432.

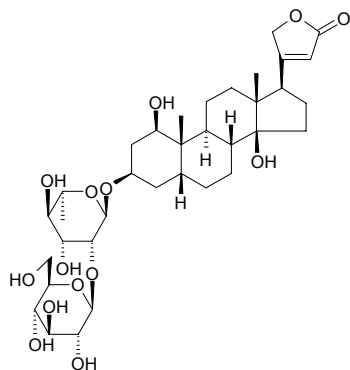
**7534 Euonymine**

C<sub>38</sub>H<sub>47</sub>NO<sub>18</sub> (805.79). White powder. **Source:** LEI GONG TENG *Tripterygium wilfordii* (root heart). **Ref:** 4559.

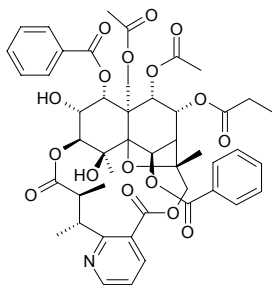


**7535 Euonymoside A**

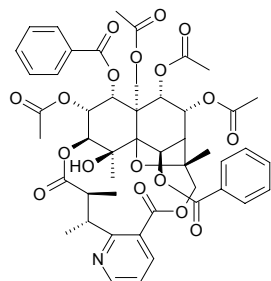
[155740-04-8]  $C_{35}H_{54}O_{14}$  (698.81). Colorless thin crystals (methanol), mp 172–173°C,  $[\alpha]_D^{25} = +33.9^\circ$  ( $c = 2.42$ , chloroform:methanol = 4:1). **Pharm:** Cytotoxic (A549 *in vitro*,  $IC_{50} = 0.06\mu\text{g/mL}$ , SK-OV-3,  $IC_{50} = 0.4\mu\text{g/mL}$ ). **Source:** XI BO SHI WEI MAO *Euonymus sieboldianus* **Ref:** 994, 1148, 1521.

**7536 Euophelline**

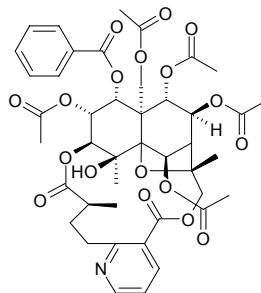
$C_{47}H_{51}NO_{17}$  (901.93). Amorphous white powder, mp 168–169°C,  $[\alpha]_D^{24} = +2.2^\circ$  ( $c = 0.45$ ,  $CHCl_3$ ). **Source:** YOU DIAN WEI MAO *Euonymus verrucosides*, FU FANG TENG *Euonymus fortunei*, SHUAN CHI WEI MAO *Euonymus phellomana*. **Ref:** 1928.

**7537 Euoverrine A**

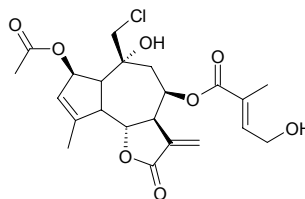
$C_{48}H_{51}NO_{18}$  (929.94). Amorphous white powder, mp 145–146°C,  $[\alpha]_D^{24} = +5.5^\circ$  ( $c = 0.55$ ,  $CHCl_3$ ). **Source:** YOU DIAN WEI MAO *Euonymus verrucosides*, FU FANG TENG *Euonymus fortunei*, SHUAN CHI WEI MAO *Euonymus phellomana*. **Ref:** 1928.

**7538 Euoverrine B**

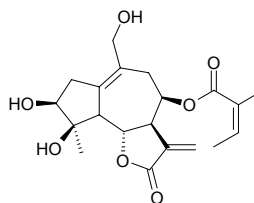
$C_{43}H_{49}NO_{18}$  (867.87). Amorphous white powder, mp. 148–149°C,  $[\alpha]_D^{24} = +10.9^\circ$  ( $c = 0.55$ ,  $CHCl_3$ ). **Source:** YOU DIAN WEI MAO *Euonymus verrucosides*, FU FANG TENG *Euonymus fortunei*, SHUAN CHI WEI MAO *Euonymus phellomana*. **Ref:** 1928.

**7539 Eupachifolin D**

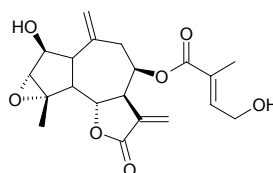
$C_{22}H_{27}ClO_8$  (454.91). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.00036%<sup>[4762]</sup>), HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.0023%<sup>[4739]</sup>). **Ref:** 4739, 4762.

**7540 Eupachinilide A**

8 $\beta$ -Angelyloxy-3 $\beta$ ,4 $\beta$ ,14-trihydroxy-5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-1(10),11(13)-diene-6,12-olide  $C_{20}H_{26}O_7$  (378.43). White powder,  $[\alpha]_D^{20} = -65.8^\circ$  ( $c = 0.58$ ,  $CH_3OH$ ). **Pharm:** Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 10.8\mu\text{g/mL}$ ; Bel7402,  $IC_{50} = 72.2\mu\text{g/mL}$ ; control Hydroxycamptothecin, HL-60,  $IC_{50} = 0.024\mu\text{g/mL}$ ; Bel7402,  $IC_{50} = 0.62\mu\text{g/mL}$ ). **Source:** HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.0036%). **Ref:** 4739.

**7541 Eupachinilide B**

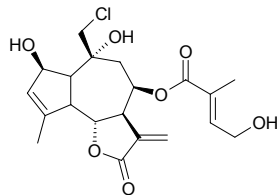
8 $\beta$ -(4'-Hydroxytiglyloxy)-3 $\alpha$ ,4 $\alpha$ -epoxy-2 $\beta$ -hydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-1(10),11(13)-diene-6,12-olide  $C_{20}H_{24}O_7$  (376.41). White powder,  $[\alpha]_D^{20} = -67.1^\circ$  ( $c = 0.50$ ,  $CH_3OH$ ). **Source:** HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.0036%). **Ref:** 4739.



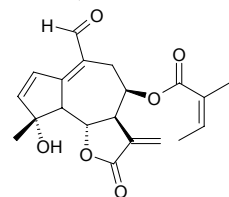


**7542 Eupachinilide C**

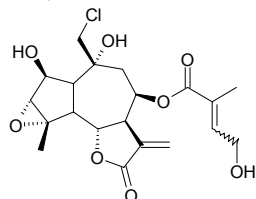
$C_{20}H_{25}ClO_7$  (412.87). Gum,  $[\alpha]_D^{20} = -66.9^\circ$  ( $c = 0.50$ ,  $CH_3OH$ ). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.0265%<sup>[4762]</sup>), HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.00032%<sup>[4739]</sup>). **Ref:** 4739, 4762.

**7543 Eupachinilide D**

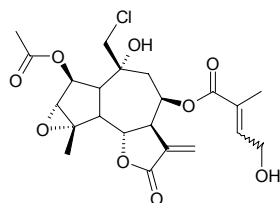
$8\beta$ -Angelyloxy-4 $\alpha$ -hydroxy-14-oxo-5 $\alpha H$ ,6 $\beta H$ ,7 $\alpha H$ -guaia-2,10(14),11(13)-trien-6,12-olide  $C_{20}H_{22}O_6$  (358.39). White powder,  $[\alpha]_D^{20} = -204.0^\circ$  ( $c = 1.53$ ,  $CH_3OH$ ). **Source:** HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.0036%). **Ref:** 4739.

**7544 Eupachinilide E**

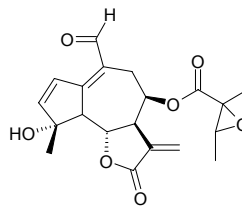
$8\beta$ -(4'-Hydroxytiglyloxy)-14-chlorine-3 $\alpha$ ,4 $\alpha$ -epoxy-2 $\beta$ ,10 $\alpha$ -dihydroxy-1 $\alpha H$ ,5 $\alpha H$ ,6 $\beta H$ ,7 $\alpha H$ -guaia-11(13)-ene-6,12-olide  $C_{20}H_{25}ClO_8$  (428.87). White powder,  $[\alpha]_D^{20} = -59.4^\circ$  ( $c = 0.60$ ,  $CH_3OH$ ). **Pharm:** Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 1.3\mu g/mL$ ; Bel7402,  $IC_{50} = 18\mu g/mL$ ; control Hydroxycamptothecin, HL-60,  $IC_{50} = 0.024\mu g/mL$ ; Bel7402,  $IC_{50} = 0.62\mu g/mL$ )<sup>[4739]</sup>. **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.00059%<sup>[4762]</sup>), HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.0032%<sup>[4739]</sup>). **Ref:** 4739, 4762.

**7545 Eupachinilide F**

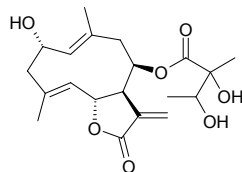
$8\beta$ -(4'-Hydroxytiglyloxy)-2 $\beta$ -acetoxy-14-chlorine-3 $\alpha$ ,4 $\alpha$ -epoxy-10 $\alpha$ -hydroxy-1 $\alpha H$ ,5 $\alpha H$ ,6 $\beta H$ ,7 $\alpha H$ -guaia-11(13)-ene-6,12-olide  $C_{22}H_{27}ClO_9$  (470.91). White powder,  $[\alpha]_D^{20} = -52.3^\circ$  ( $c = 0.84$ ,  $CH_3OH$ ). **Pharm:** Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 0.87\mu g/mL$ ; Bel7402,  $IC_{50} = 3.7\mu g/mL$ ; control Hydroxycamptothecin, HL-60,  $IC_{50} = 0.024\mu g/mL$ ; Bel7402,  $IC_{50} = 0.62\mu g/mL$ ). **Source:** HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.0027%). **Ref:** 4739.

**7546 Eupachinilide G**

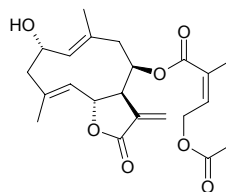
$8\beta$ -(2',3'-Epoxy-2'-methylbutanoxy)-4 $\alpha$ -hydroxy-14-oxo-5 $\alpha H$ ,6 $\beta H$ ,7 $\alpha H$ -guaia-1(10),2,11(13)-trien-6,12-olide  $C_{20}H_{22}O_7$  (374.39). Gum,  $[\alpha]_D^{20} = -216.5^\circ$  ( $c = 0.65$ ,  $CH_3OH$ ). **Source:** HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.00023%). **Ref:** 4739.

**7547 Eupachinilide H**

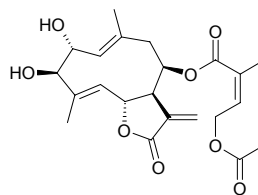
$8\beta$ -(2',3'-Dihydroxy-2'-methylbutanoxy)-2 $\alpha$ -hydroxy-6 $\beta H$ ,7 $\alpha H$ -germacra-1(10)-E,4E,11(13)-trien-6,12-olide  $C_{20}H_{28}O_7$  (380.44). White powder,  $[\alpha]_D^{20} = +34.7^\circ$  ( $c = 0.54$ ,  $CH_3OH$ ). **Source:** HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.00091%). **Ref:** 4739.

**7548 Eupachinilide I**

$8\beta$ -(4'-Acetoxyangelyloxy)-2 $\alpha$ -hydroxy-6 $\beta H$ ,7 $\alpha H$ -germacra-1(10)-E,4E,11(13)-trien-6,12-olide  $C_{22}H_{28}O_7$  (404.46). White powder,  $[\alpha]_D^{20} = +76.1^\circ$  ( $c = 0.65$ ,  $CH_3OH$ ). **Pharm:** Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 0.94\mu g/mL$ ; Bel7402,  $IC_{50} = 3.6\mu g/mL$ ; control Hydroxycamptothecin, HL-60,  $IC_{50} = 0.024\mu g/mL$ ; Bel7402,  $IC_{50} = 0.62\mu g/mL$ ). **Source:** HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.0018%). **Ref:** 4739.

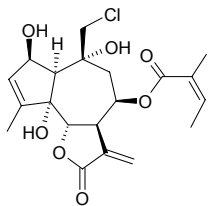
**7549 Eupachinilide J**

$8\beta$ -(4'-Acetoxyangelyloxy)-2 $\alpha$ ,3 $\beta$ -dihydroxy-6 $\beta H$ ,7 $\alpha H$ -germacra-1(10)E,4E,11(13)-trien-6,12-olide  $C_{22}H_{28}O_8$  (420.46). White powder,  $[\alpha]_D^{20} = +40.8^\circ$  ( $c = 0.55$ ,  $CH_3OH$ ). **Source:** HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.0018%). **Ref:** 4739.

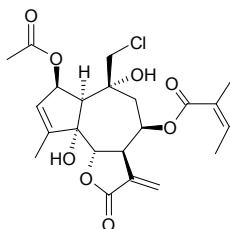


**7550 Eupachlorin**

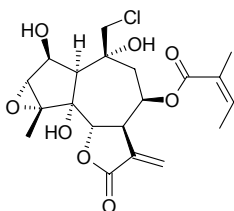
[20071-50-5] C<sub>20</sub>H<sub>25</sub>NO<sub>7</sub> (412.87). Colorless lamellar crystals (methanol), mp 219~221°C (dec), [α]<sub>D</sub><sup>27</sup> = -110° (c = 0.35, ethanol). **Pharm:** Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 0.21 μg/mL). **Source:** YUAN YE ZE LAN *Eupatorium rotundifolium*. **Ref:** 661.

**7551 Eupachlorin acetate**

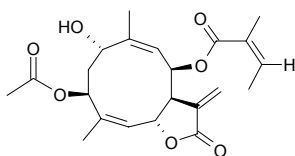
[20501-52-4] C<sub>22</sub>H<sub>27</sub>ClO<sub>8</sub> (454.91). Colorless acicular crystals (benzene), mp 161~164°C (vacuum, dec), [α]<sub>D</sub><sup>26</sup> = -192° (c = 0.63, methanol). **Pharm:** Antineoplastic (rat W<sub>256</sub>); cytotoxic (KB, ED<sub>50</sub> = 0.18 μg/mL). **Source:** YUAN YE ZE LAN *Eupatorium rotundifolium*. **Ref:** 661.

**7552 Eupachloroxin**

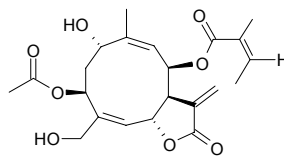
[20071-52-7] C<sub>20</sub>H<sub>25</sub>ClO<sub>8</sub> (428.87). Amorphous powder. **Pharm:** Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 0.21 μg/mL). **Source:** YUAN YE ZE LAN *Eupatorium rotundifolium*. **Ref:** 661.

**7553 Eupacunin**

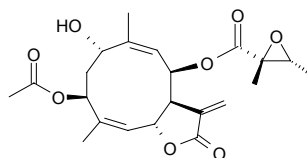
[33854-15-8] C<sub>22</sub>H<sub>28</sub>O<sub>7</sub> (404.46). Colorless acicular crystals (methanol-ether), mp 166~167°C, [α]<sub>D</sub><sup>25</sup> = +55° (c = 1.24, acetone). **Pharm:** Antineoplastic (rat, P<sub>388</sub>, W<sub>256</sub>, *in vivo*); cytotoxic (KB, ED<sub>50</sub> = 2.1 μg/mL). **Source:** XIE YE ZE LAN *Eupatorium cuneifolium*, ZHEN YE ZE LAN *Eupatorium lancifolium*. **Ref:** 661.

**7554 Eupacunolin**

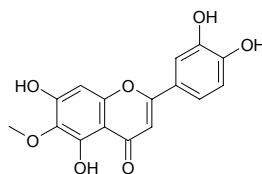
[79491-59-1] C<sub>22</sub>H<sub>28</sub>O<sub>8</sub> (420.46). Colorless acicular crystals (methanol-chloroform), mp 164~165°C, [α]<sub>D</sub><sup>26</sup> = +46° (c = 1.02, acetone). **Pharm:** Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 3.7 μg/mL). **Source:** XIE YE ZE LAN *Eupatorium cuneifolium*. **Ref:** 661.

**7555 Eupacunoxin**

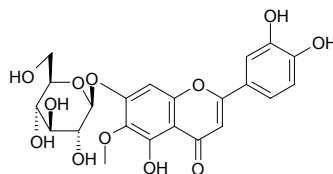
[33853-88-2] C<sub>22</sub>H<sub>28</sub>O<sub>8</sub> (420.46). Colorless acicular crystals (ether), mp 171~172°C, [α]<sub>D</sub><sup>26</sup> = +27° (c = 1.0, acetone). **Pharm:** Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 2.1 μg/mL). **Source:** XIE YE ZE LAN *Eupatorium cuneifolium*. **Ref:** 661.

**7556 Eupafolin**

5,7,3',4'-Tetrahydroxy-6-methoxyflavone; 6-Methoxyluteolin [520-11-6] C<sub>16</sub>H<sub>12</sub>O<sub>7</sub> (316.27). Yellow acicular crystals, mp 257~259°C. **Pharm:** Cytotoxic (KB, ED<sub>50</sub> = 18 μg/mL). **Source:** JIN JI ZE LAN *Eupatorium subastatum*, LI ZHI CAO *Salvia plebeia*, MAO LIAN HAO *Artemisia vestita*, MI DIE XIANG *Rosmarinus officinalis*, PENG LAI CAO *Lippia nodiflora*, XIE YE ZE LAN *Eupatorium cuneifolium*, YIN DU JIA JING JIE *Nepeta hindostana*. **Ref:** 5, 474, 658.

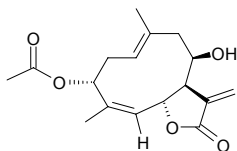
**7557 Eupafolin-7-glucoside**

Nepitrin; 6-Methoxyluteolin-7-glucoside C<sub>22</sub>H<sub>22</sub>O<sub>12</sub> (478.41). mp 252~256°C (dec). **Pharm:** Antioxidant (DPPH free radical scavenger, DPPH radical 15 μmol/L: 10 μmol/L, ScRt = 38.1%; control BHA, 10 μmol/L, ScRt = 23.0%; Vitamin E, 10 μmol/L, ScRt = 41.1%)<sup>[3846]</sup>. **Source:** DA MA YE ZE LAN *Eupatorium cannabinum*, JIA HUI SE JIU LI XIANG PO PO NA *Veronica thymoides* ssp. *pseudocinerea*<sup>[3846]</sup>, LI ZHI CAO *Salvia plebeia*, MAO DI HUANG *Digitalis purpurea*, MAO HUA MAO DI HUANG *Digitalis lanata*, PENG LAI CAO *Lippia nodiflora*, XIANG RI KUI YE *Helianthus annuus*, XUAN FU HUA *Inula britannica*, YANG SHI CAO *Achillea millefolium*. **Ref:** 6, 660, 1388, 3846.

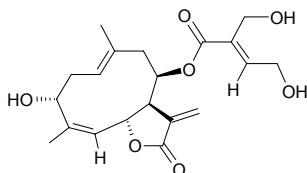


**7558 Eupaformonin**

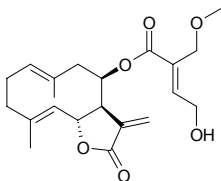
[55520-20-2] C<sub>17</sub>H<sub>22</sub>O<sub>5</sub> (306.36). Colorless prismatic crystals, mp 216~218°C. **Pharm:** Cytotoxic (hmn throat epicytoma cells, *in vitro*). **Source:** TAI WAN ZE LAN *Eupatorium formosanum*. **Ref:** 661.

**7559 Eupaformosanin**

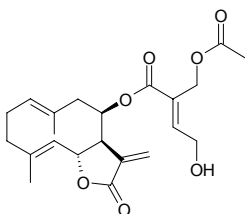
[64439-43-6] C<sub>20</sub>H<sub>26</sub>O<sub>7</sub> (378.43). **Pharm:** Antineoplastic; cytotoxic. **Source:** TAI WAN ZE LAN *Eupatorium formosanum*. **Ref:** 658.

**7560 Eupaglehnin A**

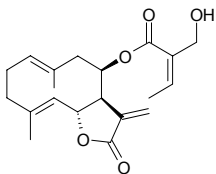
C<sub>21</sub>H<sub>29</sub>O<sub>6</sub> (376.45). Oil, [α]<sub>D</sub><sup>24</sup> = +55.3° (c = 0.86, EtOH). **Source:** KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*]. **Ref:** 4226.

**7561 Eupaglehnin B**

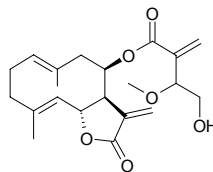
C<sub>22</sub>H<sub>28</sub>O<sub>7</sub> (404.46). Oil, [α]<sub>D</sub><sup>20</sup> = +52.5° (c = 0.5, CHCl<sub>3</sub>). **Source:** KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*]. **Ref:** 4226.

**7562 Eupaglehnin C**

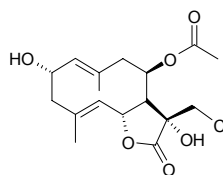
C<sub>20</sub>H<sub>26</sub>O<sub>5</sub> (346.43). Oil, [α]<sub>D</sub><sup>20</sup> = +48.0° (c = 1.5, CHCl<sub>3</sub>). **Source:** KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*]. **Ref:** 4226.

**7563 Eupaglehnin D**

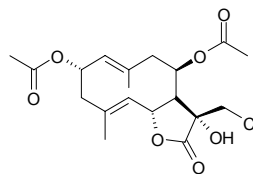
C<sub>21</sub>H<sub>28</sub>O<sub>6</sub> (376.45). Oil, [α]<sub>D</sub><sup>20</sup> = +19.7° (c = 0.39, CHCl<sub>3</sub>). **Source:** KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*]. **Ref:** 4226.

**7564 Eupaglehnin E**

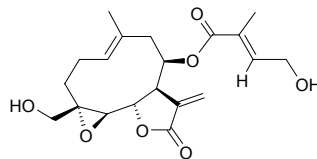
C<sub>17</sub>H<sub>23</sub>ClO<sub>6</sub> (358.82). Oil, [α]<sub>D</sub><sup>24</sup> = +63.8° (c = 0.5, EtOH). **Source:** KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*]. **Ref:** 4226.

**7565 Eupaglehnin F**

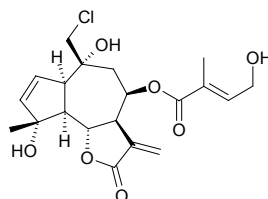
C<sub>19</sub>H<sub>25</sub>ClO<sub>7</sub> (400.86). Oil, [α]<sub>D</sub><sup>20</sup> = +40.0° (c = 0.3, CHCl<sub>3</sub>). **Source:** KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*]. **Ref:** 4226.

**7566 Eupahyssopin**

Eupahyssopin [57718-77-1] C<sub>20</sub>H<sub>26</sub>O<sub>7</sub> (378.43). Colorless prismatic crystals (chloroform), mp 125°C, [α]<sub>D</sub><sup>25</sup> = -138.9° (c = 1.45, chloroform). **Pharm:** Antiarthritic (animal model); antineoplastic (rat, W<sub>256</sub>); anti-inflammatory (animal model); cytotoxic (mus EAC cells, inhibits biosynthesis of DNA, RNA, protein and cholesterol). **Source:** SHEN XIANG CAO YE ZE LAN *Eupatorium hyssopifolium*. **Ref:** 661.

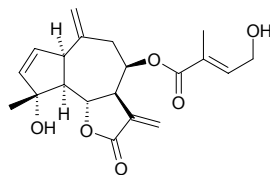
**7567 Eupalinilide A**

8β-(4'-Hydroxytylgloyloxy)-14-chloro-4β,10β-dihydroxy-1αH,5αH,6βH,7αH-guai-2,11(13)-dien-6,12-olide C<sub>20</sub>H<sub>25</sub>ClO<sub>7</sub> (412.87). Colorless gum, [α]<sub>D</sub><sup>20</sup> = -34.3° (c = 0.47, CHCl<sub>3</sub>). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.00055%dw). **Ref:** 4762.

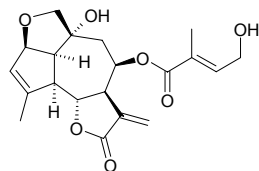


**7568 Eupalinilide B**

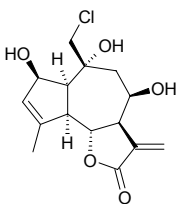
8 $\beta$ -(4'-Hydroxytigloyloxy)-4 $\alpha$ -hydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-2,10-(14),11(13)-trien-6,12-olide C<sub>20</sub>H<sub>24</sub>O<sub>6</sub> (360.41). Colorless gum,  $[\alpha]_D^{20} = -84.9^\circ$  ( $c = 0.67$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 0.21 $\mu$ g/mL; A549, IC<sub>50</sub> = 0.75 $\mu$ g/mL; control Pseudolaric acid B, P<sub>388</sub>, IC<sub>50</sub> = 0.32 $\mu$ g/mL; A549, IC<sub>50</sub> = 0.86 $\mu$ g/mL). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.00045%dw). **Ref:** 4762.

**7569 Eupalinilide C**

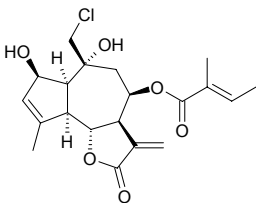
8 $\beta$ -(4'-Hydroxytigloyloxy)-2 $\beta$ ,14-epoxy-10 $\alpha$ -hydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-3,11(13)-dien-6,12-olide C<sub>20</sub>H<sub>24</sub>O<sub>7</sub> (376.41). White powder,  $[\alpha]_D^{20} = -7.0^\circ$  ( $c = 1.0$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 1.2 $\mu$ g/mL; A549, IC<sub>50</sub> = 11 $\mu$ g/mL; control Pseudolaric acid B, P<sub>388</sub>, IC<sub>50</sub> = 0.32 $\mu$ g/mL; A549, IC<sub>50</sub> = 0.86 $\mu$ g/mL). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.00068%dw). **Ref:** 4762.

**7570 Eupalinilide D**

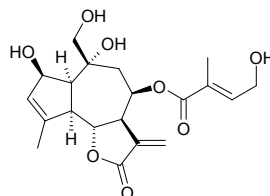
14-Chloro-2 $\beta$ ,8 $\beta$ ,10 $\alpha$ -trihydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-3,11(13)-dien-6,12-olide C<sub>15</sub>H<sub>19</sub>ClO<sub>5</sub> (314.77). Colorless gum,  $[\alpha]_D^{20} = -59.4^\circ$  ( $c = 0.8$ , CHCl<sub>3</sub>). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.00055%dw). **Ref:** 4762.

**7571 Eupalinilide E**

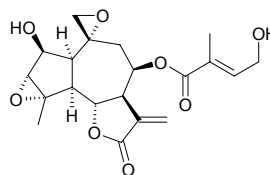
8 $\beta$ -Tigloyloxy-14-chloro-2 $\beta$ ,10 $\alpha$ -dihydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-3,11(13)-dien-6,12-olide C<sub>20</sub>H<sub>25</sub>ClO<sub>6</sub> (396.87). White powder,  $[\alpha]_D^{20} = -56.2^\circ$  ( $c = 1.0$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, P<sub>388</sub>, inactive; A549, IC<sub>50</sub> = 0.028 $\mu$ g/mL; control Pseudolaric acid B, P<sub>388</sub>, IC<sub>50</sub> = 0.32 $\mu$ g/mL; A549, IC<sub>50</sub> = 0.86 $\mu$ g/mL). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.0033%dw). **Ref:** 4762.

**7572 Eupalinilide F**

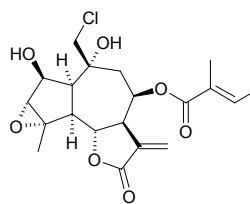
8 $\beta$ -(4'-Hydroxytigloyloxy)-2 $\beta$ ,10 $\alpha$ ,14-trihydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-3,11(13)-dien-6,12-olide C<sub>20</sub>H<sub>26</sub>O<sub>8</sub> (394.43). Colorless gum,  $[\alpha]_D^{20} = -38.0^\circ$  ( $c = 1.3$ , CH<sub>3</sub>OH). **Pharm:** Cytotoxic inactive (*in vitro*, P<sub>388</sub>, A549; control Pseudolaric acid B, P<sub>388</sub>, IC<sub>50</sub> = 0.32 $\mu$ g/mL; A549, IC<sub>50</sub> = 0.86 $\mu$ g/mL). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.0034%dw). **Ref:** 4762.

**7573 Eupalinilide G**

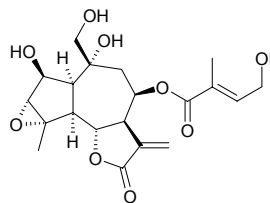
8 $\beta$ -(4'-Hydroxytigloyloxy)-3 $\alpha$ ,4 $\alpha$ :10 $\alpha$ ,14-diepoxy-2 $\beta$ -hydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-11(13)-en-6,12-olide C<sub>20</sub>H<sub>24</sub>O<sub>8</sub> (392.41). Colorless gum,  $[\alpha]_D^{20} = -44.3^\circ$  ( $c = 0.47$ , CHCl<sub>3</sub>). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.00032%dw). **Ref:** 4762.

**7574 Eupalinilide H**

8 $\beta$ -Tigloyloxy-14-chloro-3 $\alpha$ ,4 $\alpha$ -epoxy-2 $\beta$ ,10-dihydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-11(13)-en-6,12-olide C<sub>20</sub>H<sub>25</sub>ClO<sub>7</sub> (412.87). Colorless gum,  $[\alpha]_D^{20} = -45.0^\circ$  ( $c = 1.5$ , CHCl<sub>3</sub>). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.0021%dw). **Ref:** 4762.

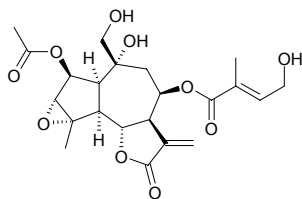
**7575 Eupalinilide I**

8 $\beta$ -(4'-Hydroxytigloyloxy)-3 $\alpha$ ,4 $\alpha$ -epoxy-2 $\beta$ ,10 $\alpha$ ,14-trihydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-11(13)-en-6,12-olide C<sub>20</sub>H<sub>26</sub>O<sub>9</sub> (410.42). Colorless gum,  $[\alpha]_D^{20} = -43.4^\circ$  ( $c = 1.0$ , CH<sub>3</sub>OH). **Pharm:** Cytotoxic inactive (*in vitro*, P<sub>388</sub>, A549; control Pseudolaric acid B, P<sub>388</sub>, IC<sub>50</sub> = 0.32 $\mu$ g/mL; A549, IC<sub>50</sub> = 0.86 $\mu$ g/mL). **Source:** CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.00086%dw). **Ref:** 4762.

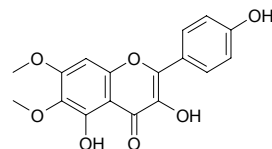


**7576 Eupalinilide J**

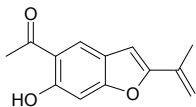
8 $\beta$ -(4'-Hydroxytigloyloxy)-3 $\alpha$ ,4 $\alpha$ -epoxy-2 $\beta$ -acetoxy-10 $\alpha$ ,14-dihydroxy-1 $\alpha$ H,5 $\alpha$ H,6 $\beta$ H,7 $\alpha$ H-guai-11(13)-en-6,12-olide C<sub>22</sub>H<sub>28</sub>O<sub>10</sub> (452.46). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -46.7° (c = 0.68, CHCl<sub>3</sub>). Source: CHENG GAN SHENG MA *Eupatorium lindleyanum* (whole herb: yield = 0.00055%dw). Ref: 4762.

**7577 Eupalitin**

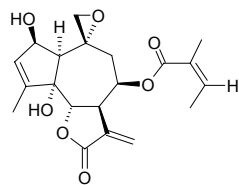
6,7-Dimethoxy-3,5,4'-trihydroxyflavone [In DNP] C<sub>17</sub>H<sub>14</sub>O<sub>7</sub> (330.30). Source: CU YING MAO DIAN ZI CAO *Onosma hispida* (whole herb), YIN CHEN HAO *Artemisia capillaris*. Ref: 2, 4490.

**7578 Euparin**

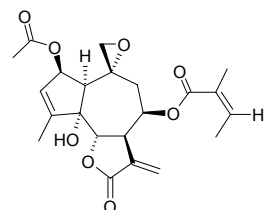
[532-48-9] C<sub>13</sub>H<sub>12</sub>O<sub>3</sub> (216.24). mp 121~122°C. Source: CHENG GAN SHENG MA *Eupatorium lindleyanum*, PEI LAN *Eupatorium fortunei*, ZHAI TOU TUO WU *Ligularia stenocephala* (root). Ref: 6, 4536.

**7579 Euparotin**

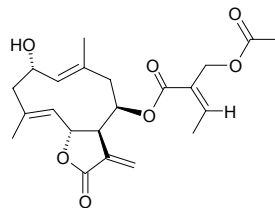
[10191-01-2] C<sub>20</sub>H<sub>24</sub>O<sub>7</sub> (376.41). Acicular crystals (ethyl acetate-petroleum ether), mp 199~200°C (vacuum), [ $\alpha$ ]<sub>D</sub><sup>32</sup> = -124° (c = 1.25, ethanol). Pharm: Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 0.21 $\mu$ g/mL). Source: YUAN YE ZE LAN *Eupatorium rotundifolium*. Ref: 661.

**7580 Euparotin acetate**

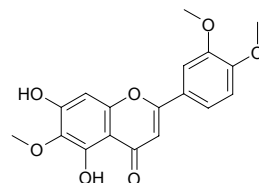
[10215-89-1] C<sub>22</sub>H<sub>26</sub>O<sub>8</sub> (418.45). mp 156~157°C (vacuum), [ $\alpha$ ]<sub>D</sub><sup>30</sup> = -191° (c = 0.54, ethanol). Pharm: Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 0.21 $\mu$ g/mL). Source: YUAN YE ZE LAN *Eupatorium rotundifolium*. Ref: 661.

**7581 Eupaserrin**

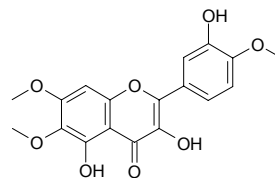
[38456-36-9] C<sub>22</sub>H<sub>28</sub>O<sub>7</sub> (404.46). Crystals (ether-methanol), mp 153~154°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +71.2° (c = 0.94, methanol). Pharm: Antineoplastic (mus, P<sub>388</sub>, 30mg/kg); cytotoxic (KB, ED<sub>50</sub> = 0.23 $\mu$ g/mL). Source: BAN JU CHI ZHUANG ZE LAN *Eupatorium semiserratum*, HUA ZE LAN *Eupatorium chinense* (whole herb: yield = 0.0014%)<sup>[4739]</sup>, KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*], ROU MAO XIANG RI KUI *Helianthus mollis*. Ref: 661, 4226, 4739.

**7582 Eupatilin**

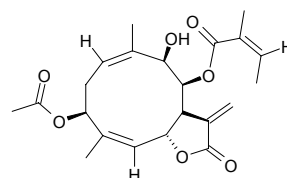
5,7-Dihydroxy-3',4',6'-trimethoxyflavone [22368-21-4] C<sub>18</sub>H<sub>16</sub>O<sub>7</sub> (344.32). Crystals (ethyl acetate), mp 234~236°C. Pharm: Cytotoxic (KB, ED<sub>50</sub> = 38 or 45 $\mu$ g/mL). Source: BAN JU CHI ZHUANG ZE LAN *Eupatorium semiserratum*, HONG ZU HAO *Artemisia rubripes*, JU PI *Citrus reticulata*, YE JU HUA *Chrysanthemum indicum*. Ref: 661, 4214.

**7583 Eupatin**

3,5,3'-Trihydroxy-6,7,4'-trimethoxy flavone [19587-65-6] C<sub>18</sub>H<sub>16</sub>O<sub>8</sub> (360.32). Golden bar crystals (methanol), mp 243~245°C. Pharm: Cytotoxic (KB, ED<sub>50</sub> = 4.6 $\mu$ g/mL). Source: BAN JU CHI ZHUANG ZE LAN *Eupatorium semiserratum*, HUANG HUA HAO *Artemisia annua*. Ref: 2, 660, 661.

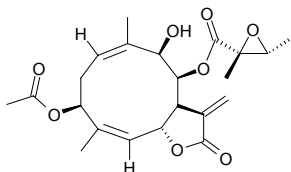
**7584 Eupatocunin**

[33853-87-1] C<sub>22</sub>H<sub>28</sub>O<sub>7</sub> (404.46). Colorless prismatic crystals (methanol-ether), mp 163~164°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -129° (c = 1.36, acetone). Pharm: Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 0.11 $\mu$ g/mL). Source: XIE YE ZE LAN *Eupatorium cuneifolium*. Ref: 661.

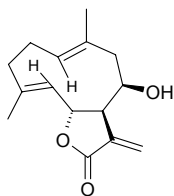


**7585 Eupatocunoxin**

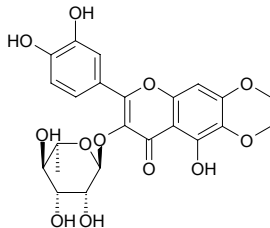
[39204-36-9] C<sub>22</sub>H<sub>28</sub>O<sub>8</sub> (420.46). Acicular crystals (acetone), mp 200~201°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -209° (c = 1, acetone). Pharm: Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 1.7μg/mL). Source: XIE YE ZE LAN *Eupatorium cuneifolium*. Ref: 661.

**7586 Eupatolide**

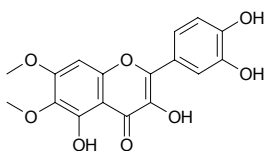
[6750-25-0] C<sub>15</sub>H<sub>20</sub>O<sub>3</sub> (248.32). Crystals (chloroform), mp 188~190°C. Pharm: Antineoplastic; anti-inflammatory; cytotoxic (HEP2, ED<sub>50</sub> = 0.469μg/mL, W-18Va-2, ED<sub>50</sub> = 0.034μg/mL, KB, HeLa, normal Rk and EAC-E4 cells). Source: KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*], TAI WAN ZE LAN *Eupatorium formosanum*. Ref: 661, 4226.

**7587 Eupatolin**

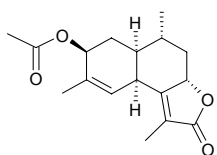
[29725-50-6] C<sub>23</sub>H<sub>24</sub>O<sub>12</sub> (492.44). mp 200~201°C. Source: PEI LAN *Eupatorium fortunei*. Ref: 6.

**7588 Eupatolitin**

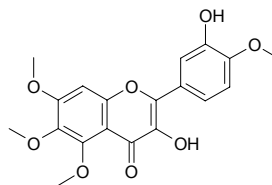
3,5,3',4'-Tetrahydroxy-6,7-dimethoxyflavone [29536-44-5] C<sub>17</sub>H<sub>14</sub>O<sub>8</sub> (346.30). Source: HUANG HUA HAO *Artemisia annua*, YIN CHEN HAO *Artemisia capillaris*. Ref: 2, 660.

**7589 Eupatoranolide**

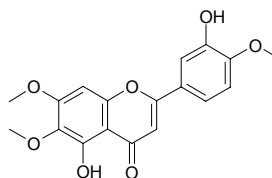
C<sub>17</sub>H<sub>22</sub>O<sub>4</sub> (290.36). Colorless crystals, mp 182~184°C. Source: ZI JING ZE LAN HUA *Eupatorium adenophorum*. Ref: 882.

**7590 Eupatoretin**

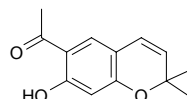
3,3'-Dihydroxy-4',5,6,7-tetramethoxyflavone [19587-69-0] C<sub>19</sub>H<sub>18</sub>O<sub>8</sub> (374.35). Yellowish acicular crystals (benzene), mp 146~148°C. Pharm: Cytotoxic (KB). Source: BAN JU CHI ZHUANG ZE LAN *Eupatorium semiserratum*. Ref: 661.

**7591 Eupatorin**

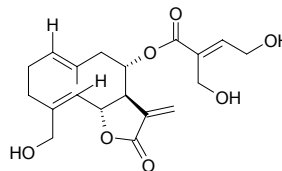
3',5-Dihydroxy-4',6,7-trimethoxyflavone [855-96-9] C<sub>18</sub>H<sub>16</sub>O<sub>7</sub> (344.32). Crystals (dioxane-water), mp 196~198°C. Pharm: Antioxidant (ferric thiocyanate method, 0.5mmol/L, peroxidation value = 11.7%, control BHA, 0.5mmol/L, peroxidation value = 4.5%, control Vitamin E, 0.5mmol/L, peroxidation value = 14.7%)<sup>[4508]</sup>. Source: BAN JU CHI ZHUANG ZE LAN *Eupatorium semiserratum*, GAO ZE LAN *Eupatorium altissimum*, TIAN SHE CAO *Lippia dulcis* (aerial parts), XIONG RUI ZHUANG ZHI GUAN CAO *Orthosiphon stamineus* [Syn. *Orthosiphon aristatus*; *Orthosiphon grandiflorus*; *Orthosiphon spicatus*] (aerial parts: yield = 0.00028%dw)<sup>[3053]</sup>. Ref: 661, 3053, 4508.

**7592 Eupatoriochromene**

6-Acetyl-7-hydroxy-2,2-dimethyl-2H-1-benzopyran [19013-03-7] C<sub>13</sub>H<sub>14</sub>O<sub>3</sub> (218.25). Pharm: Phototoxic (yeast and bacteria). Source: HE AN ZE LAN *Eupatorium riparium*. Ref: 658.

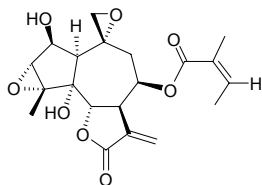
**7593 Eupatoriopicrin**

[6856-01-5] C<sub>20</sub>H<sub>26</sub>O<sub>7</sub> (378.43). mp 157~161°C (dilute ethanol), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +95° (chloroform). Pharm: Antineoplastic; cytotoxic (KB, HeLa, normal Rk cells and EAC-E4 cells). Source: PEI LAN *Eupatorium fortunei*, DA MA YE ZE LAN *Eupatorium cannabinum*, KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*]. Ref: 6, 661, 4226.

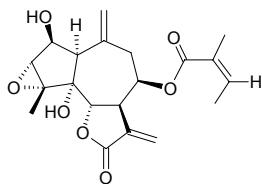


**7594 Eupatoroxin**

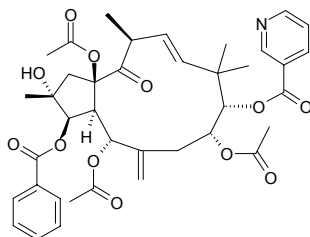
[20071-51-6] C<sub>20</sub>H<sub>24</sub>O<sub>8</sub> (392.41). mp 197~200°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -98° (c = 1.10, methanol). **Pharm:** Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 2.8µg/mL). **Source:** YUAN YE ZE LAN *Eupatorium rotundifolium*. **Ref:** 661.

**7595 Epatundin**

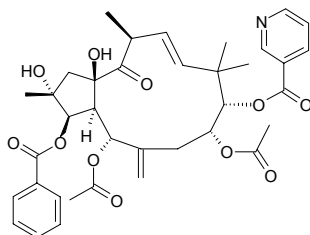
[20071-53-8] C<sub>20</sub>H<sub>24</sub>O<sub>7</sub> (376.41). mp 188~189°C (vacuum), [ $\alpha$ ]<sub>D</sub><sup>29</sup> = -80° (c = 0.44, ethanol). **Pharm:** Antineoplastic; cytotoxic (KB, ED<sub>50</sub> = 0.39µg/mL). **Source:** YUAN YE ZE LAN *Eupatorium rotundifolium*. **Ref:** 661.

**7596 Euphocharacin A**

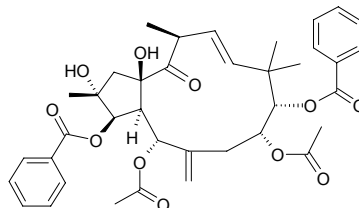
C<sub>39</sub>H<sub>45</sub>NO<sub>12</sub> (719.79). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -22.17° (c = 0.1, CHCl<sub>3</sub>). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt = (59±1)%, relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7597 Euphocharacin B**

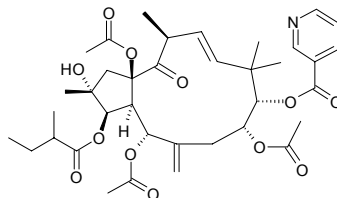
C<sub>37</sub>H<sub>43</sub>NO<sub>11</sub> (677.76). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +117.69° (c = 0.1, CHCl<sub>3</sub>). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt = (72±1)%, relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7598 Euphocharacin C**

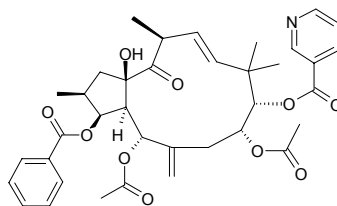
C<sub>38</sub>H<sub>44</sub>O<sub>11</sub> (676.77). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +16.67° (c = 0.1, CHCl<sub>3</sub>). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt = (123±2)%, relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7599 Euphocharacin D**

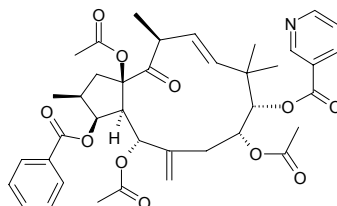
C<sub>37</sub>H<sub>49</sub>NO<sub>12</sub> (699.80). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +8.0° (c = 0.1, CHCl<sub>3</sub>). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt = (52±3)%, relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7600 Euphocharacin E**

C<sub>37</sub>H<sub>43</sub>NO<sub>10</sub> (661.76). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -16.71° (c = 0.1, CHCl<sub>3</sub>). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt = (105±3)%, relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

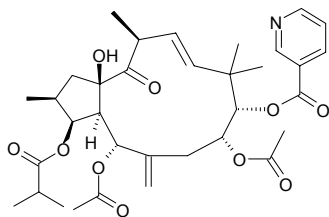
**7601 Euphocharacin F**

C<sub>39</sub>H<sub>45</sub>NO<sub>11</sub> (703.79). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -2.10° (c = 0.1, CHCl<sub>3</sub>). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt = (86±2)%, relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

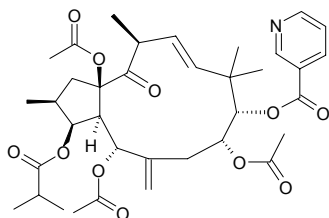


**7602 Euphocharacin G**

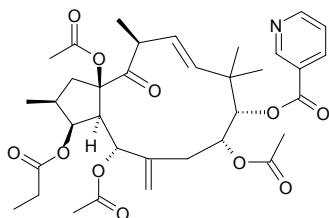
$C_{34}H_{45}NO_{10}$  (627.74). White amorphous solid,  $[\alpha]_D^{25} = -25.0^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt =  $(61 \pm 2)\%$ ), relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7603 Euphocharacin H**

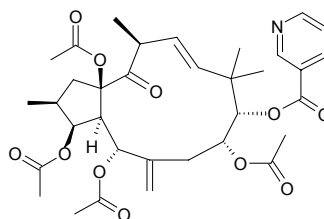
$C_{36}H_{47}NO_{11}$  (669.78). Colorless amorphous solid,  $[\alpha]_D^{25} = -17.27^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt =  $(62 \pm 4)\%$ ), relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7604 Euphocharacin I**

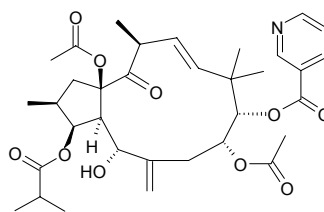
$C_{35}H_{45}NO_{11}$  (655.75). Colorless amorphous solid,  $[\alpha]_D^{25} = -22.0^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt =  $(123 \pm 3)\%$ ), relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7605 Euphocharacin J**

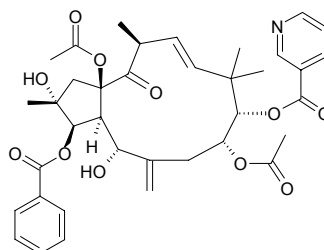
$C_{34}H_{43}NO_{11}$  (641.72). Colorless amorphous solid,  $[\alpha]_D^{25} = -46.0^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt =  $(62 \pm 2)\%$ ), relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7606 Euphocharacin K**

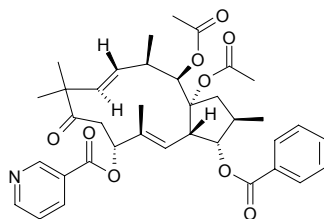
$C_{34}H_{45}NO_{10}$  (627.74). Colorless amorphous solid,  $[\alpha]_D^{25} = -19.33^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt =  $(47 \pm 5)\%$ ), relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7607 Euphocharacin L**

$C_{37}H_{43}NO_{11}$  (677.76). Colorless amorphous solid,  $[\alpha]_D^{25} = -40.0^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Pharm:** Cancer cell P-Glycoprotein inhibitor (cellular P-glycoprotein-mediated daunomycin efflux, InRt =  $(79 \pm 4)\%$ ), relative standard Cyclosporin A(CsA) InRt = 100%). **Source:** DI ZHONG HAI DA JI *Euphorbia characias* (whole herb). **Ref:** 5003.

**7608 Euphoheliosnoid A**

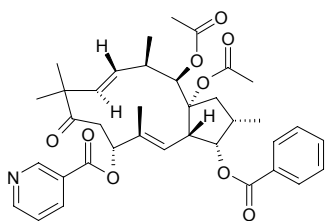
$C_{37}H_{43}NO_9$  (645.76). Colorless oil,  $[\alpha]_D^{20} = +19^\circ$  ( $c = 1.36$ ,  $CHCl_3$ ). **Source:** ZE QI *Euphorbia helioscopia* (whole herb). **Ref:** 5076.



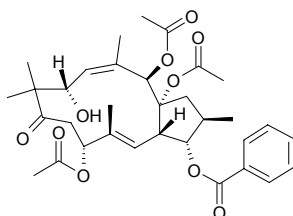


**7609 Euphoheliosnoid B**

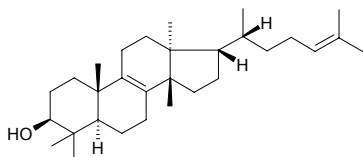
$C_{37}H_{43}NO_9$  (645.76). Colorless oil,  $[\alpha]_D^{20} = +25^\circ$  ( $c = 1.00$ ,  $CHCl_3$ ). Source: ZE QI *Euphorbia helioscopia* (whole herb). Ref: 5076.

**7610 Euphoheliosnoid C**

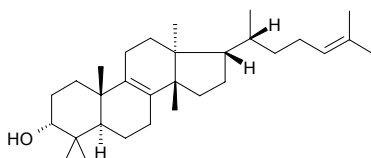
$C_{33}H_{42}O_{10}$  (598.70). Colorless oil,  $[\alpha]_D^{20} = +33^\circ$  ( $c = 0.58$ ,  $CHCl_3$ ). Source: ZE QI *Euphorbia helioscopia* (whole herb). Ref: 5076.

**7611 Euphol**

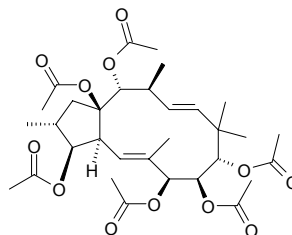
Euphadienol; Eupha-8,24-dien-3 $\beta$ -ol [514-47-6]  $C_{30}H_{50}O$  (426.73). mp 116°C. Pharm: Antihypertensive (anesthetic dog, iv, 0.31~10mg/kg, blood pressure is lowered by 20~30mmHg to 50~93mmHg for 0.75~4.5 hours, ED<sub>50</sub> (iv) = 2.18mg/Kg); cytotoxic (P<sub>388</sub>, ED<sub>50</sub> = 2.4 $\mu$ g/mL); antineoplastic (EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = 0% (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 70%; reference compound  $\beta$ -Carotene, relative percentage = 8.6%)<sup>[4606]</sup>. Source: BA WANG BIAN *Euphorbia royleana*, GAN SUI *Euphorbia kansui*, HUO YANG LE *Euphorbia antiquorum* (latex: yield = 0.38%fw)<sup>[4606]</sup>, XI YE DA JI *Euphorbia esula* var. *cyparissoides*. Ref: 6, 1812, 1813, 4606.

**7612  $\alpha$ -Euphol**

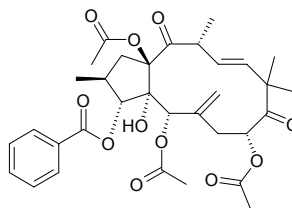
$C_{30}H_{50}O$  (426.73). Source: GAN SUI *Euphorbia kansui* (dried root). Ref: 4690.

**7613 Euphobubescene**

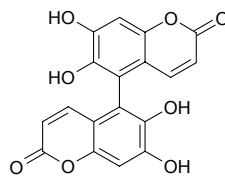
3 $\beta$ ,7 $\beta$ ,8 $\beta$ ,9 $\alpha$ ,14 $\alpha$ ,15 $\beta$ -Hexaacetoxy-2 $\beta$ H-jatropha-5E,11E-diene  $C_{32}H_{46}O_{12}$  (622.72). White amorphous powder,  $[\alpha]_D^{25} = -139^\circ$  ( $c = 0.14$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro* MCF7 cell lines, GI<sub>50</sub> = (72.0 $\pm$ 5.8) $\mu$ mol/L, Doxorubicin, GI<sub>50</sub> = (42.8 $\pm$ 8.2) $\mu$ mol/L; NCI-H460 cell lines, GI<sub>50</sub> = (40.9 $\pm$ 0.8) $\mu$ mol/L, Doxorubicin, GI<sub>50</sub> = (94.0 $\pm$ 8.7) $\mu$ mol/L; SF268 cell lines, GI<sub>50</sub> > 100 $\mu$ mol/L, Doxorubicin, GI<sub>50</sub> = (93.0 $\pm$ 7.0) $\mu$ mol/L). Source: DUAN ROU MAO DA JI *Euphorbia pubescens* (whole herb). Ref: 4949.

**7614 Euphobubescenol**

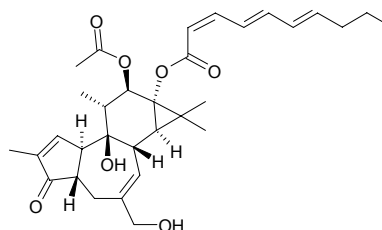
5 $\alpha$ ,8 $\alpha$ ,15 $\beta$ -Triacetoxy-3 $\alpha$ -benzoyloxy-4 $\alpha$ -hydroxy-9,14-dioxo-13 $\beta$ H-jatropha-6(17),11E-diene  $C_{33}H_{40}O_{11}$  (612.68). White amorphous powder,  $[\alpha]_D^{25} = +29^\circ$  ( $c = 0.12$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro* MCF7, GI<sub>50</sub> = (68.6 $\pm$ 3.2) $\mu$ mol/L, Doxorubicin, GI<sub>50</sub> = (42.8 $\pm$ 8.2) $\mu$ mol/L; NCI-H460, GI<sub>50</sub> = 75 $\mu$ mol/L, Doxorubicin, GI<sub>50</sub> = (94.0 $\pm$ 8.7) $\mu$ mol/L; SF268, GI<sub>50</sub> > 100 $\mu$ mol/L, Doxorubicin, GI<sub>50</sub> = (93.0 $\pm$ 7.0) $\mu$ mol/L). Source: DUAN ROU MAO DA JI *Euphorbia pubescens* (whole herb). Ref: 4949.

**7615 Euphorbetin**

[35897-99-5]  $C_{18}H_{10}O_8$  (354.28). Source: QIAN JIN ZI *Euphorbia lathyris*. Ref: 6.

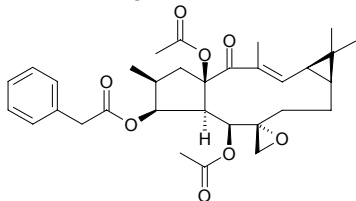
**7616 Euphorbia factor Ti<sub>2</sub>**

$C_{32}H_{42}O_7$  (538.69). Pharm: Irritant. Source: LU YU SHU *Euphorbia tirucalli*. Ref: 658.

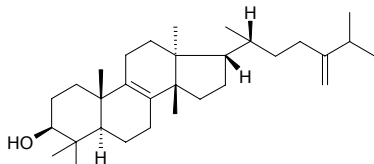


**7617 Euphorbiasteroid**

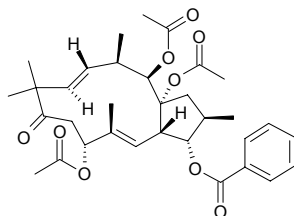
5,10-Diacetyl-6,20-epoxy-3-phenyl-acetyllythyrol  $C_{32}H_{40}O_8$  (552.67). mp 199.5°C. **Pharm:** Laxative. **Source:** QIAN JIN ZI *Euphorbia lathyris*, XUE TONG *Macaranga tanarius*. **Ref:** 6, 661, 5501.

**7618 Euphorbol**

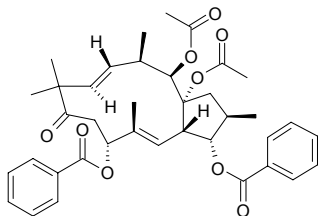
$\alpha$ -Euphorbol [566-14-3]  $C_{31}H_{52}O$  (440.76). Needles, mp 123~126°C, mp 127~128°C,  $[\alpha]_D^{25} = -1.0^\circ$  ( $c = 0.20$ ). **Pharm:** Antineoplastic (EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = 0% (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 70%; reference compound  $\beta$ -Carotene, relative percentage = 8.6%). **Source:** BA WANG BIAN *Euphorbia royleana*, GAN SUI *Euphorbia kansui*, HUO YANG LE *Euphorbia antiqorum* (latex). **Ref:** 6, 4606.

**7619 Euphoscopin B**

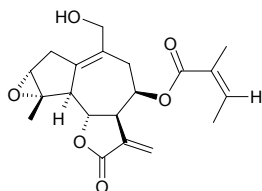
$C_{33}H_{42}O_9$  (598.706). **Source:** ZE QI *Euphorbia helioscopia* (whole herb). **Ref:** 5076.

**7620 Euphoscopin C**

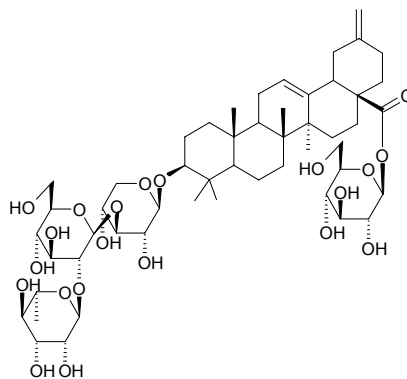
$C_{38}H_{44}O_9$  (644.77). **Source:** ZE QI *Euphorbia helioscopia* (whole herb). **Ref:** 5076.

**7621 Euponin**

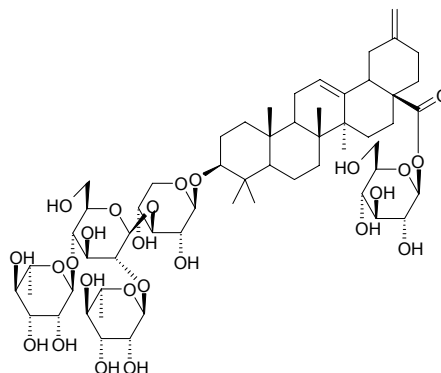
[70469-59-9]  $C_{20}H_{24}O_6$  (360.41). **Pharm:** Larvacide (insect larva growth inhibitor). **Source:** CHENG GAN CAO *Eupatorium japonicum*. **Ref:** 658.

**7622 Eupteleasaponin I**

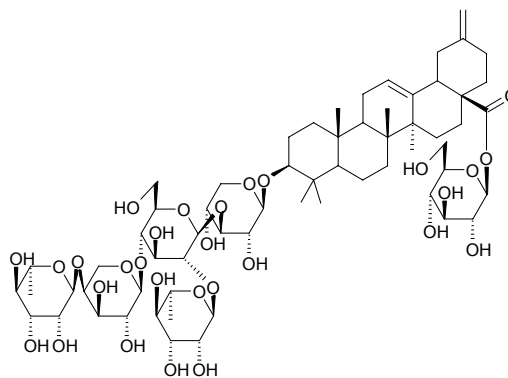
$C_{52}H_{82}O_{21}$  (1043.22). **Source:** DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). **Ref:** 3537.

**7623 Eupteleasaponin II**

$C_{58}H_{92}O_{25}$  (1189.36). **Source:** DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). **Ref:** 3537.

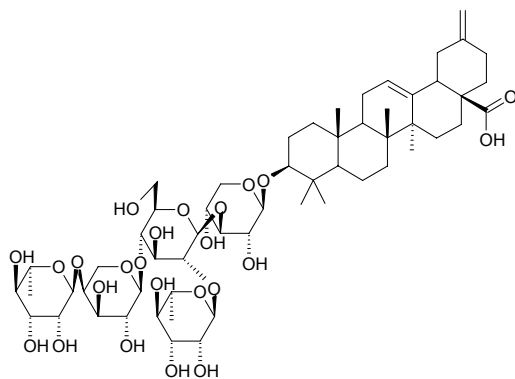
**7624 Eupteleasaponin III**

$C_{63}H_{100}O_{29}$  (1321.48). **Source:** DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). **Ref:** 3537.

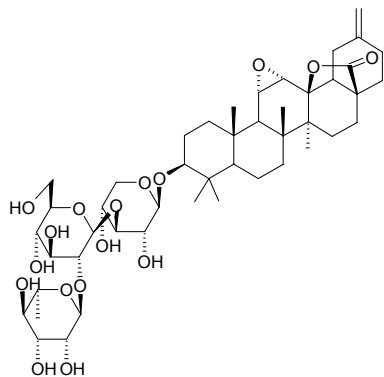


**7625 Eupteleasaponin IV**

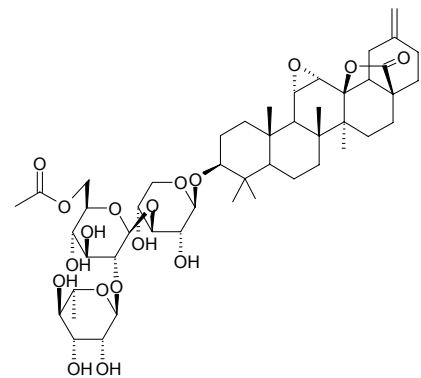
$C_{57}H_{90}O_{24}$  (1159.34). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

**7626 Eupteleasaponin V**

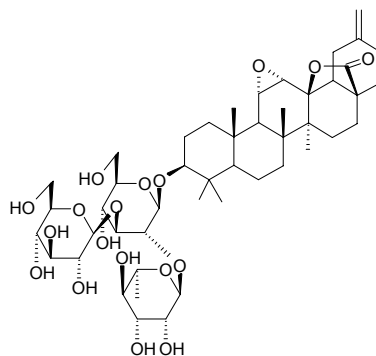
$C_{46}H_{70}O_{17}$  (895.06). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

**7627 Eupteleasaponin V acetate**

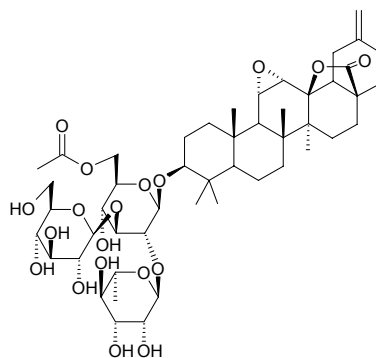
$C_{48}H_{72}O_{18}$  (937.10). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

**7628 Eupteleasaponin VI**

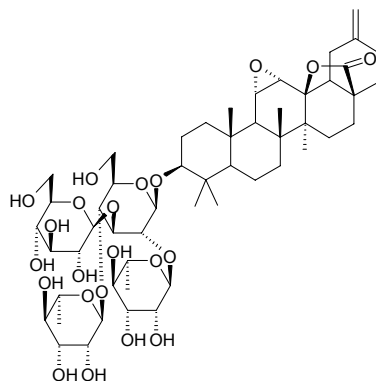
Eupteleogenin 3-*O*- $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 2)-[ $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranoside  $C_{47}H_{72}O_{18}$  (925.09). Colorless fine crystals ( $CHCl_3$ -MeOH), mp 184–187°C,  $[\alpha]_D^{25} = +46.8^\circ$  ( $c = 0.1$ , MeOH). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

**7629 Eupteleasaponin VI acetate**

Eupteleogenin 3-*O*-[ $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 2)][ $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 3)]-6'-*O*-acetyl- $\beta$ -*D*-glucopyranoside  $C_{49}H_{74}O_{19}$  (967.12). Colorless fine crystals ( $CHCl_3$ -MeOH), mp 180–184°C,  $[\alpha]_D^{26} = +31.9^\circ$  ( $c = 0.1$ , MeOH). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

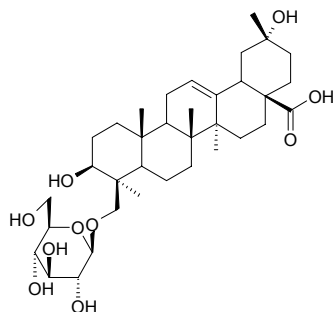
**7630 Eupteleasaponin VII**

Eupteleogenin 3-*O*-[ $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 2)][ $\beta$ -*D*-galactopyranosyl(1 $\rightarrow$ 3)][ $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 4)]- $\beta$ -*D*-glucopyranoside  $C_{53}H_{82}O_{22}$  (1071.23). Colorless fine crystals ( $CHCl_3$ -MeOH), mp 168–172°C,  $[\alpha]_D^{26} = +14.6^\circ$  ( $c = 0.1$ , MeOH). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

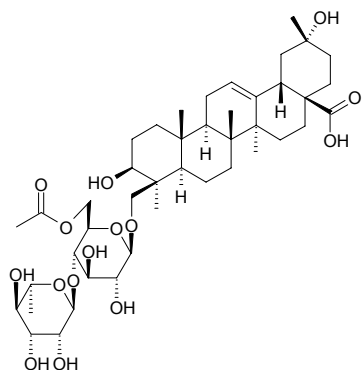


**7631 Eupteleasaponin VIII**

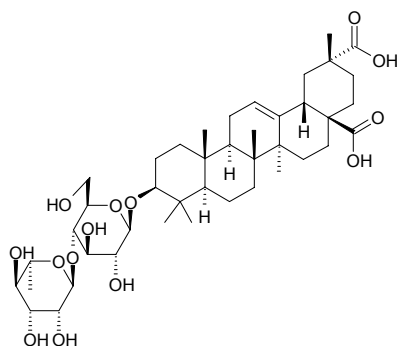
3 $\beta$ ,20 $\alpha$ ,24-Trihydroxy-29-norolean-12-en-28-oic acid 24-*O*- $\beta$ -D-glucopyranoside C<sub>35</sub>H<sub>56</sub>O<sub>10</sub> (636.83). Colorless fine crystals (CHCl<sub>3</sub>-MeOH), mp 199~201°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = +73.9° (*c* = 0.1, MeOH). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

**7632 Eupteleasaponin IX**

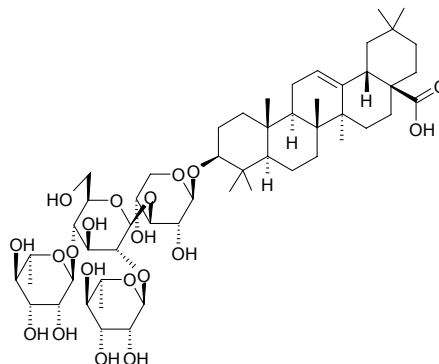
3 $\beta$ ,20 $\alpha$ ,24-Trihydroxy-29-norolean-12-en-28-oic acid 24-*O*-[ $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 4)]-6'-*O*-acetyl- $\beta$ -D-glucopyranoside C<sub>43</sub>H<sub>68</sub>O<sub>15</sub> (825.01). Colorless fine crystals (CHCl<sub>3</sub>-MeOH), mp 221~225°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = +34.9° (*c* = 0.1, MeOH). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

**7633 Eupteleasaponin X**

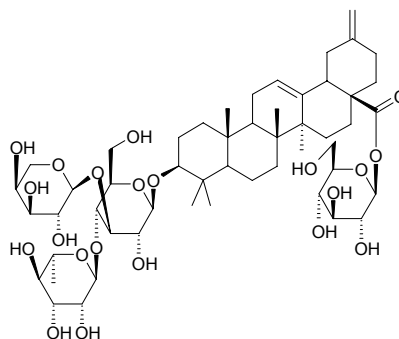
Serratagenic acid 3-*O*- $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranoside C<sub>42</sub>H<sub>66</sub>O<sub>14</sub> (794.99). Colorless fine crystals (CHCl<sub>3</sub>-MeOH), mp 237~239°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = +12.1° (*c* = 0.1, MeOH). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

**7634 Eupteleasaponin XI**

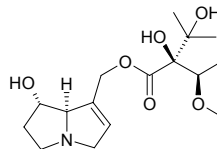
Oleanolic acid 3-*O*-{ $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 2)-[ $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 4)]- $\beta$ -D-glucopyranosyl(1 $\rightarrow$ 3)}- $\beta$ -D-xylopyranoside C<sub>53</sub>H<sub>86</sub>O<sub>20</sub> (1043.26). Colorless fine crystals (CHCl<sub>3</sub>-MeOH), mp 241~245°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = +116° (*c* = 0.1, MeOH). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

**7635 Eupteleasaponin XII**

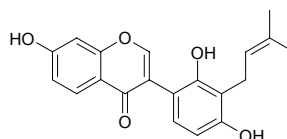
8-*O*- $\beta$ -D-Glucopyranosylakebonic acid 3-*O*- $\alpha$ -L-arabinopyranosyl(1 $\rightarrow$ 3)-[ $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 4)]- $\beta$ -D-glucopyranoside C<sub>52</sub>H<sub>82</sub>O<sub>21</sub> (1043.22). Colorless fine crystals (CHCl<sub>3</sub>-MeOH), mp 175~177°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +33.9° (*c* = 0.1, MeOH). Source: DUO XIONG RUI LING CHUN MU *Euptelea polyandra* (fresh leaf). Ref: 3537.

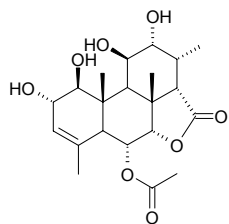
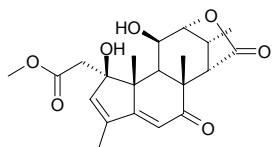
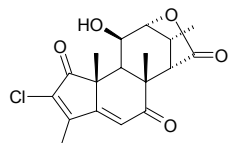
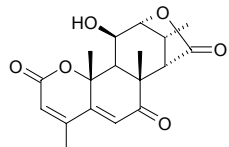
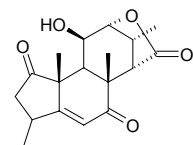
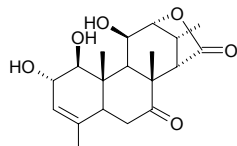
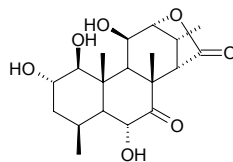
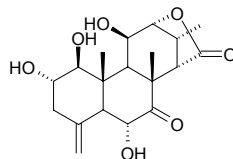
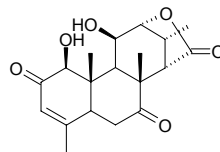
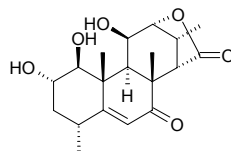
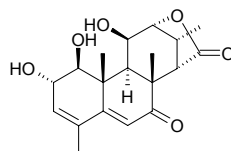
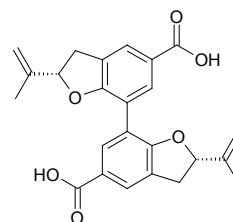
**7636 Europine**

[570-19-4] C<sub>16</sub>H<sub>27</sub>NO<sub>6</sub> (329.40). Pharm: Anticholinergic (rat); hepatotoxicin. Source: OU ZHOU TIAN JIE CAI *Heliotropium europaeum*, YUAN YE TIAN JIE CAI *Heliotropium rotundifolium*. Ref: 658.

**7637 Eurycarpin A**

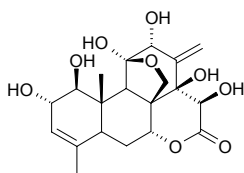
7,2',4'-Trihydroxy-(3,3-dimethylallyl)isoflavone [166547-20-2] C<sub>20</sub>H<sub>18</sub>O<sub>5</sub> (338.36). Powder (methanol), mp 85~87°C. Source: HUANG GAN CAO *Glycyrrhiza kansuensis*. Ref: 379.



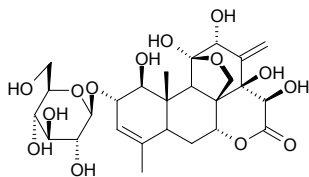
**7638 Eurycolactone**C<sub>21</sub>H<sub>30</sub>O<sub>8</sub> (410.47). [Source: Eurycoma sp. Ref: 4556.](#)**7639 Eurycolactone A**C<sub>21</sub>H<sub>26</sub>O<sub>7</sub> (390.44). [Source: Eurycoma sp. Ref: 4556.](#)**7640 Eurycolactone B**C<sub>18</sub>H<sub>19</sub>ClO<sub>5</sub> (350.38). [Source: Eurycoma sp. Ref: 4556.](#)**7641 Eurycolactone C**C<sub>18</sub>H<sub>20</sub>O<sub>6</sub> (332.36). [Source: Eurycoma sp. Ref: 4556.](#)**7642 Eurycolactone D**C<sub>18</sub>H<sub>22</sub>O<sub>5</sub> (318.37). [Source: Eurycoma sp. Ref: 4556.](#)**7643 Eurycolactone E**C<sub>19</sub>H<sub>26</sub>O<sub>6</sub> (350.42). [Source: Eurycoma sp. Ref: 4556.](#)**7644 Eurycolactone F**C<sub>19</sub>H<sub>28</sub>O<sub>7</sub> (368.43). [Source: Eurycoma sp. Ref: 4556.](#)**7645 Eurycolactone G**C<sub>19</sub>H<sub>26</sub>O<sub>7</sub> (366.41). [Source: Eurycoma sp. Ref: 4556.](#)**7646 Eurycomalactone**C<sub>19</sub>H<sub>24</sub>O<sub>6</sub> (348.40). [Pharm:](#) Cytotoxic (A549 cancer cells, remarkable activity; MCF7 cancer cells, IC<sub>50</sub> < 2.5 μg/mL); antileishmanial (IC<sub>50</sub> = 0.21 μg/mL, control Thalloquin, IC<sub>50</sub> = 0.21 μg/mL). [Source: Eurycoma sp. Ref: 4556.](#)**7647 Eurycomalide A**C<sub>19</sub>H<sub>26</sub>O<sub>6</sub> (350.42). [Source: Eurycoma sp. Ref: 4556.](#)**7648 Eurycomalide B**C<sub>19</sub>H<sub>24</sub>O<sub>6</sub> (348.40). [Source: Eurycoma sp. Ref: 4556.](#)**7649 Eurycomalin A**C<sub>24</sub>H<sub>22</sub>O<sub>6</sub> (406.44). [Source: Eurycoma sp. Ref: 4556.](#)

**7650 Eurycomanol**

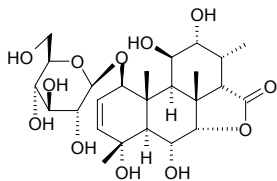
$C_{20}H_{26}O_9$  (410.42). **Pharm:** Cytotoxic (KB cells,  $IC_{50} = 3.6\mu\text{g/mL}$ )<sup>[4556]</sup>, antileishmanial ( $IC_{50} = 0.28\mu\text{g/mL}$ , control Thallioquin,  $IC_{50} = 0.21\mu\text{g/mL}$ ). **Source:** *Eurycoma* sp. **Ref:** 4556.

**7651 Eurycomanol-2-O-β-glucopyranoside**

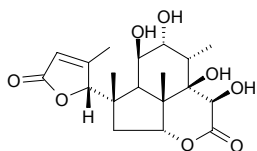
$C_{26}H_{36}O_{14}$  (572.57). **Pharm:** Antileishmanial (thallioquin-resistance *Leishmania* sp.,  $IC_{50} = 0.389\sim 3.498\mu\text{mol/L}$ , control Thallioquin,  $IC_{50} = 0.323\sim 0.774\mu\text{mol/L}$ ). **Source:** *Eurycoma* sp. **Ref:** 4556.

**7652 Eurycomaoside**

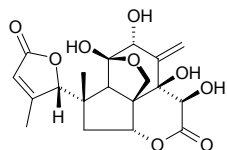
$C_{25}H_{38}O_{12}$  (530.57).  $[\alpha]_D^{25} = -10.9^\circ$  ( $c = 0.5$ , MeOH). **Source:** CHANG YE KUAN MU *Eurycoma longifolia* (root). **Ref:** 4400.

**7653 Eurylactone A**

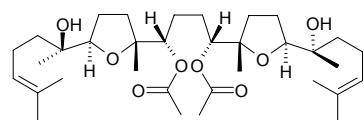
$C_{19}H_{26}O_8$  (382.41). **Source:** *Eurycoma* sp. **Ref:** 4556.

**7654 Eurylactone B**

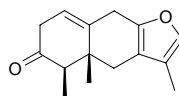
$C_{19}H_{22}O_9$  (394.38). **Source:** *Eurycoma* sp. **Ref:** 4556.

**7655 Eurylene**

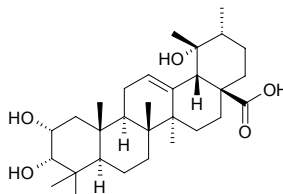
$C_{34}H_{58}O_8$  (594.84). **Pharm:** Cytotoxic (KB cells, gtdrolysis product 11-Deacetyleurylene  $IC_{50} = 0.33\mu\text{g/mL}$ ). **Source:** *Eurycoma* sp. **Ref:** 4556.

**7656 Euryopsin-3-one**

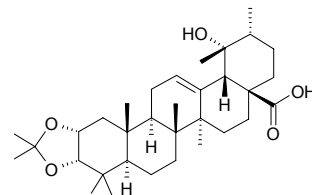
$C_{15}H_{18}O_2$  (230.31). Colorless oil. **Source:** HUANG SE QIAN LI GUANG *Senecio flavus*. **Ref:** 2409.

**7657 Euscaphic acid**

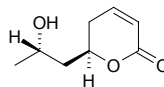
2 $\alpha$ ,3 $\alpha$ ,19 $\alpha$ -Trihydroxyurs-12-en-28-oic acid [53155-25-2]  $C_{30}H_{48}O_5$  (488.71). Colorless powder crystals, mp 269~271°C,  $[\alpha]_D^{18} = -22.4^\circ$  ( $c = 0.05$ , pyridine). **Pharm:** Immunosuppressant (hmn mononuclear cells antiproliferation, involving T lymphocytes, B lymphocytes, and macrophages isolated from peripheral blood,  $IC_{50} = 28.8\mu\text{mol/L}$ ; control Cyclosporin A,  $IC_{50} = 0.012\mu\text{mol/L}$ )<sup>[3064]</sup>; cytotoxic inactive (HSC-2,  $IC_{50} > 200\mu\text{g/mL}$ ; HGF,  $IC_{50} > 200\mu\text{g/mL}$ )<sup>[5160]</sup>. **Source:** DI YU *Sanguisorba officinalis*, JIN YING ZI *Rosa laevigata*, JUAN MAO QIANG WEI *Rosa sericea*, PI PA HE *Eriobotrya japonica*, SAN YE SHU WEI CAO *Salvia trijuga*, TAI WAN PI PA *Eriobotrya deflexa* (leaf)<sup>[3064]</sup>, TUN XING GUO *Pygeum topengii*. **Ref:** 447, 570, 592, 643, 3064, 5160.

**7658 Euscaphic acid 2,3-monoacetonide**

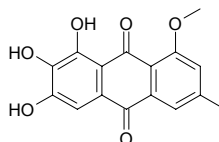
$C_{33}H_{52}O_5$  (528.78). White acicular crystals, mp 188~190°C acetone-petroleum ether). **Source:** JUAN MAO QIANG WEI *Rosa sericea*. **Ref:** 676.

**7659 Euscapholide**

7-Hydroxy-2-octen-5-olide  $C_8H_{12}O_3$  (156.18). **Pharm:** Anti-inflammatory (remarkably inhibits inflammation induced by *k*-carrageenan)<sup>[4546]</sup>. **Source:** YE YA CHUN *Euscaphis japonica* (twig and leaf). **Ref:** 4546.

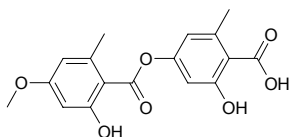
**7660 Evariquinone**

1,2,3-Trihydroxy-6-methyl-8-methoxyanthraquinone  $C_{16}H_{12}O_6$  (300.27). mp 238~242°C (sublimation). **Source:** BIAN SE HE KE BAO *Emericella varicolor*. **Ref:** 3386.

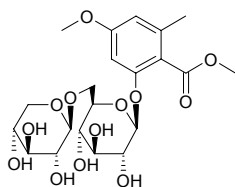


**7661 Evernic acid**

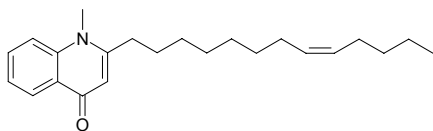
[537-09-7]  $C_{17}H_{16}O_7$  (332.31). mp 169.6~170.1°C. Source: XIAO LA BA *Cladonia verticillata*. Ref: 6.

**7662 Evernic acid methyl ester 2-O-β-xylopyranosyl-(1→6)-β-glucopyranoside**

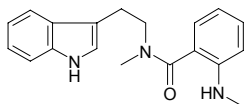
$C_{21}H_{30}O_{13}$  (490.47). Amorphous powder,  $[\alpha]_D^{20} = -41.2^\circ$  ( $c = 0.80$ , MeOH). Source: NAO YANG HUA *Rhododendron molle*. Ref: 5396.

**7663 Evocarpine**

[15266-38-3]  $C_{23}H_{33}NO$  (339.53). Note: evocarpine is a mixture, and the following structure is its main component. Pharm: DGAT inhibitor ( $IC_{50} = 8.1 \mu\text{g/mL}$ )<sup>[4943]</sup>, leukotriene biosynthesis inhibitor (hmn polymorphonuclear granulocytes,  $IC_{50} = 14.6 \mu\text{mol/L}$ , zileuton,  $IC_{50} = 10.4 \mu\text{mol/L}$ )<sup>[5031]</sup>. Source: WU ZHU YU *Evodia rutaecarpa* (fruit). Ref: 2, 4943, 5031.

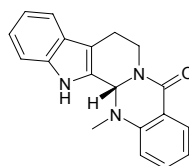
**7664 Evodiamide**

$C_{19}H_{21}N_3O$  (307.40). Source: WU ZHU YU *Evodia rutaecarpa*. Ref: 2, 347, 877.

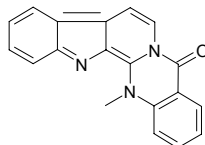
**7665 Evodiamine**

8,13,13b,14-Tetrahydro-14-methylindolo[2',3':3,4]pyrido[2,1b]quinazolin-5(7H)-one [518-17-2]  $C_{19}H_{17}N_3O$  (303.37). Yellow lamellar crystals (ethanol), mp 278°C.  $[\alpha]_D^{15} = +352^\circ$  (acetone), mp (+) 270~272°C. Pharm: Analgesic (has both stimulatory and desensitizing effects on sensory nerves, as capsaicin does)<sup>[5394]</sup>; diuretic; raises body temperature; induces sweating; cytotoxic (induces apoptosis of HeLa cell); CGRP stimulator (Calcitonin gene-related peptide, CGRP, protects the myocardium against ischemia-reperfusion injury)<sup>[4088]</sup>; a detail study on protective effects of evodiamine on myocardial ischemia-reperfusion injury in rats (Rats were pretreated with evodiamine 10min before the experiment, and then the left main coronary artery of rat hearts was subjected to 60min occlusion followed by 180min reperfusion. Infarct size, the activity of serum creatine kinase, serum concentrations of TNF- $\alpha$  and plasma concentrations of CGRP were measured. Pretreatment with evodiamine (30 or 60 $\mu\text{g/kg}$ , iv) markedly increased the content of CGRP in plasma concomitantly with a significant reduction in infarct size, the activity of serum creatine kinase, and TNF- $\alpha$

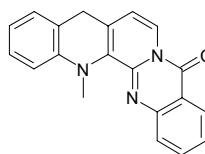
level, and the effects of evodiamine were completely abolished by capsazepine (5.0mg/kg, sc), a competitive vanilloid receptor antagonist. These results suggest that evodiamine exerts a protection against myocardial ischemia-reperfusion injury in rats and that the protective effects of evodiamine are related to stimulation of CGRP release via activation of vanilloid receptors)<sup>[4088]</sup>. Source: BO SHI WU ZHU YU *Evodia rutaecarpa* var. *bodinieri* (dried and almost ripe fruit: content scope of 4 origins = 0.117%~1.229%, mean content = 0.544%)<sup>[5508]</sup>, HUA NAN WU ZHU YU *Evodia austrosinensis* (dried and almost ripe fruit: content = 0.12%)<sup>[5508]</sup>, SHI HU<sup>(3)</sup> *Evodia rutaecarpa* var. *officinalis* (dried and almost ripe fruit: content scope of 14 origins = 0.093%~1.242%, mean content = 0.503%)<sup>[5508]</sup>, WU ZHU YU *Evodia rutaecarpa* (dried and almost ripe fruit: content scope of 14 origins = 0.203%~3.221%, mean content = 1.200%)<sup>[5508]</sup>, YI HUA WU ZHU YU *Evodia baberi* (dried and almost ripe fruit: content scope of 2 origins = 0.114%~0.152%, mean content = 0.133%)<sup>[5508]</sup>. Ref: 2, 6, 347, 661, 1643, 4088, 5394, 5501, 5508.

**7666 Evodianine**

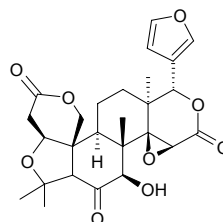
$C_{19}H_{13}NO_3$  (299.33). Pale yellow crystals, mp 185~187°C ( $\text{CHCl}_3$ ),  $[\alpha]_D^{23} = 0^\circ$  ( $c = 0.5$ ,  $\text{CHCl}_3$ ). Source: WU ZHU YU *Evodia rutaecarpa* (fruit). Ref: 4848.

**7667 Evodioxine**

$C_{20}H_{15}N_3O$  (313.36). Yellow needles, mp 175~176°C,  $[\alpha]_D^{23} = 0^\circ$  ( $c = 0.5$ ,  $\text{CHCl}_3$ ). Source: WU ZHU YU *Evodia rutaecarpa* (fruit). Ref: 4914.

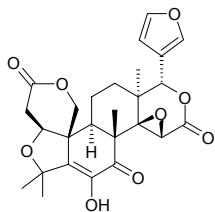
**7668 Evodinone**

Rutaevin [33237-37-5]  $C_{26}H_{30}O_9$  (486.52). mp 295~297°C (dec). Source: WU ZHU YU *Evodia rutaecarpa*. Ref: 2, 6.

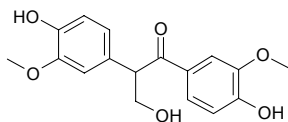


**7669 Evodol**

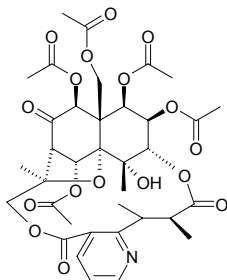
Limonindiosphenol [22318-10-1] C<sub>26</sub>H<sub>28</sub>O<sub>9</sub> (484.51). mp 280~281°C. Source: BAI XIAN PI *Dictamnus dasycarpus*, WU ZHU YU *Evodia rutaecarpa*. Ref: 2, 660, 1521.

**7670 Evofolin B**

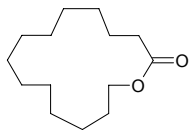
[168254-96-4] C<sub>17</sub>H<sub>18</sub>O<sub>6</sub> (318.33). Yellow oil, [α]<sub>D</sub><sup>26</sup> = +16.7° (c = 0.30, CH<sub>3</sub>OH). Pharm: Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells)<sup>[5038]</sup>. Source: HAI NAN JIAN MU *Dysoxylum hainanense*, *Couepia ulei*. Ref: 2140, 5038.

**7671 Evonine**

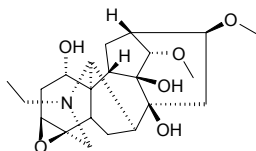
C<sub>36</sub>H<sub>43</sub>NO<sub>17</sub> (761.74). mp 149~153°C. Source: GUI JIAN YU *Euonymus alatus* (the compound was isolated from the plant by H.Wada, et al. in 1971). Ref: 5505.

**7672 Exaltolide**

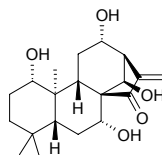
Oxacyclohexadecan-2-one [106-02-5] C<sub>15</sub>H<sub>28</sub>O<sub>2</sub> (240.39). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*]. Ref: 2.

**7673 Excelsine**

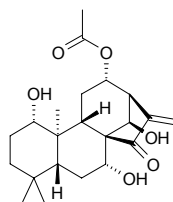
9β-Hydroxy-monticamine [41645-62-9] C<sub>22</sub>H<sub>33</sub>NO<sub>6</sub> (407.51). Colorless quadratus crystals, mp 87~89°C (acetone); 103~105°C. Source: JI LIN WU *Aconitum kirinense*, ZI HUA GAO WU *Aconitum excelsum*. Ref: 1521, 2515.

**7674 Excisanin A**

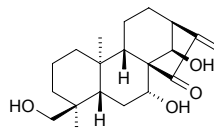
1α,7α,12α,14β-Tetrahydroxy-*ent*-kaur-16-en-15-one C<sub>20</sub>H<sub>30</sub>O<sub>5</sub> (350.46). mp 262~264°C, [α]<sub>D</sub><sup>20</sup> = -27.7° (c = 1.01, C<sub>5</sub>H<sub>5</sub>N). Pharm: Cytotoxic (*in vitro*, P<sub>388</sub>, ED<sub>50</sub> = 1.1 μg/mL)<sup>[3012]</sup>. Source: WEI YE XIANG CHA CAI *Rabdosia excisa* (aerial parts: yield = 0.0069%dw). Ref: 3012, 4067.

**7675 Excisanin B**

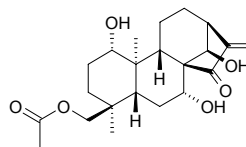
1α,7α,14β-Trihydroxy-12α-acetoxy-*ent*-kaur-16-en-15-one C<sub>22</sub>H<sub>32</sub>O<sub>6</sub> (392.50). mp 240~243°C, [α]<sub>D</sub><sup>20</sup> = -13.9° (c = 1.00, C<sub>5</sub>H<sub>5</sub>N). Pharm: Cytotoxic (*in vitro*, P<sub>388</sub>, ED<sub>50</sub> = 0.63 μg/mL)<sup>[3012]</sup>. Source: WEI YE XIANG CHA CAI *Rabdosia excisa* (aerial parts: yield = 0.0013%dw). Ref: 3012, 4067.

**7676 Excisanin C**

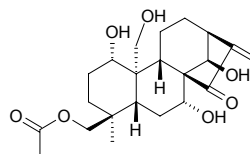
C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). [α]<sub>D</sub><sup>21</sup> = -112.7° (c = 0.15, MeOH). Source: WEI YE XIANG CHA CAI *Rabdosia excisa*. Ref: 4067.

**7677 Excisanin D**

C<sub>22</sub>H<sub>32</sub>O<sub>6</sub> (392.50). mp 140~142°C, [α]<sub>D</sub> = -56° (c = 0.42, MeOH). Pharm: Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 0.72 μg/mL)<sup>[3012]</sup>. Source: WEI YE XIANG CHA CAI *Rabdosia excisa* (aerial parts: yield = 0.0001%dw). Ref: 3012, 4067.

**7678 Excisanin E**

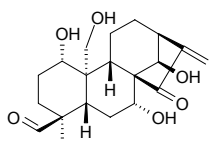
C<sub>22</sub>H<sub>32</sub>O<sub>7</sub> (408.50). Yellow powder, [α]<sub>D</sub> = -46.1° (c = 0.64, MeOH). Source: WEI YE XIANG CHA CAI *Rabdosia excisa*. Ref: 4067.



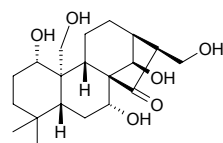


**7679 Excisanin F**

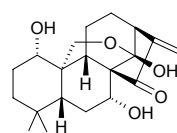
$C_{20}H_{28}O_6$  (364.44).  $[\alpha]_D^{20} = +27.3^\circ$  ( $c = 0.55$ , MeOH). Source: WEI YE XIANG CHA CAI *Rabdosia excisa*. Ref: 4067.

**7680 Excisanin G**

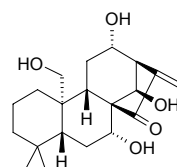
$C_{20}H_{32}O_6$  (368.47). mp 214–216°C,  $[\alpha]_D^{20} = -100.8^\circ$  ( $c = 0.51$ , MeOH). Source: WEI YE XIANG CHA CAI *Rabdosia excisa*. Ref: 4067.

**7681 Excisanin H**

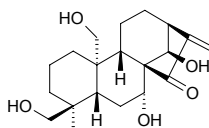
14 $\alpha$ ,20-Epoxy-1 $\alpha$ ,7 $\alpha$ ,14 $\beta$ -trihydroxy-*ent*-kaur-16-en-15-one  $C_{20}H_{28}O_5$  (348.44). Colorless powder (MeOH), mp 206–207°C,  $[\alpha]_D = -87.9^\circ$  ( $c = 0.07$ , MeOH). Pharm: Cytotoxic (*in vitro*,  $P_{388}$ ,  $ED_{50} = 0.96\mu\text{g/mL}$ ). Source: WEI YE XIANG CHA CAI *Rabdosia excisa* (aerial parts: yield = 0.00007%dw). Ref: 3012.

**7682 Excisanin I**

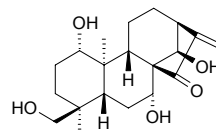
7 $\alpha$ ,12 $\alpha$ ,14 $\beta$ ,20-Tetrahydroxy-*ent*-kaur-16-en-15-one  $C_{20}H_{30}O_5$  (350.46). Colorless powder (MeOH), mp 142–144°C,  $[\alpha]_D = -110.3^\circ$  ( $c = 0.06$ , MeOH). Pharm: Cytotoxic (*in vitro*,  $P_{388}$ ,  $ED_{50} = 0.87\mu\text{g/mL}$ ). Source: WEI YE XIANG CHA CAI *Rabdosia excisa* (aerial parts: yield = 0.00009%dw). Ref: 3012.

**7683 Excisanin J**

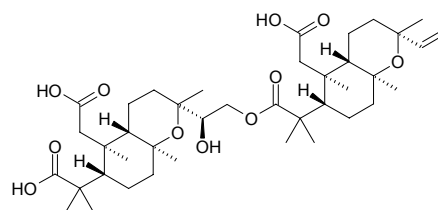
7 $\alpha$ ,14 $\beta$ ,18,20-Tetrahydroxy-*ent*-kaur-16-en-15-one  $C_{20}H_{30}O_5$  (350.46). Colorless powder (MeOH), mp 116–118°C,  $[\alpha]_D = -125.0^\circ$  ( $c = 0.17$ , MeOH). Pharm: Cytotoxic (*in vitro*,  $P_{388}$ ,  $ED_{50} = 0.92\mu\text{g/mL}$ ). Source: WEI YE XIANG CHA CAI *Rabdosia excisa* (aerial parts: yield = 0.00009%dw). Ref: 3012.

**7684 Excisanin K**

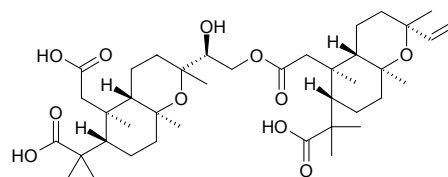
1 $\alpha$ ,7 $\alpha$ ,14 $\beta$ ,18-Tetrahydroxy-*ent*-kaur-16-en-15-one  $C_{20}H_{30}O_5$  (350.46). Colorless powder (MeOH), mp 128–129°C,  $[\alpha]_D = -109.2^\circ$  ( $c = 0.23$ , MeOH). Pharm: Cytotoxic (*in vitro*,  $P_{388}$ ,  $ED_{50} = 0.92\mu\text{g/mL}$ ). Source: WEI YE XIANG CHA CAI *Rabdosia excisa* (aerial parts: yield = 0.00013%dw). Ref: 3012.

**7685 Excoecarin R<sub>1</sub>**

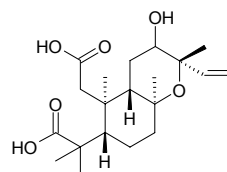
$C_{40}H_{64}O_{11}$  (720.95). Source: HAI QI *Excoecaria agallocha* (resinous resinous wood: yield = 0.0019%). Ref: 4674.

**7686 Excoecarin R<sub>2</sub>**

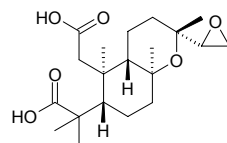
$C_{40}H_{64}O_{11}$  (720.95). Source: HAI QI *Excoecaria agallocha* (resinous wood: yield = 0.0015%). Ref: 4674.

**7687 Excoecarin S**

$C_{20}H_{32}O_6$  (368.47). Colorless needles (MeOH), mp 254–256°C,  $[\alpha]_D^{26} = -47.2^\circ$  ( $c = 0.9$ , MeOH). Source: HAI QI *Excoecaria agallocha* (resinous wood). Ref: 3461.

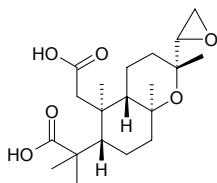
**7688 Excoecarin T<sub>1</sub>**

$C_{20}H_{32}O_6$  (368.47). As dimethyl ester: colorless needles (aqueous MeOH), mp 102–103°C,  $[\alpha]_D^{30} = -8.1^\circ$  ( $c = 1.0$ ,  $\text{CHCl}_3$ ). Source: HAI QI *Excoecaria agallocha* (resinous wood). Ref: 3461.

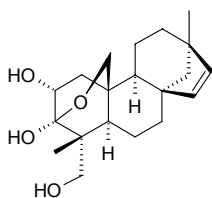


**7689 Excoecarin T<sub>2</sub>**

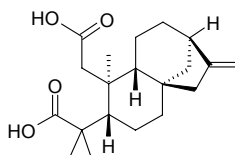
C<sub>20</sub>H<sub>32</sub>O<sub>6</sub> (368.47). As dimethyl ester: colorless needles (aqueous MeOH), mp 130~133°C,  $[\alpha]_D^{30} = -14.7^\circ$  ( $c = 0.5$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha* (resinous wood). Ref: 3461.

**7690 Excoecarin V<sub>1</sub>**

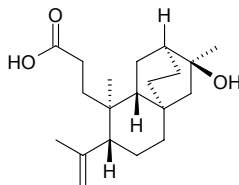
2 $\alpha$ ,3 $\alpha$ ,18-Trihydroxy-3 $\beta$ ,20-epoxybeyer-15-ene C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). Colorless prisms (MeOH), mp 177~179°C,  $[\alpha]_D^{26} = -19.3^\circ$  ( $c = 0.5$ , MeOH). Source: HAI QI *Excoecaria agallocha* (fresh stem). Ref: 4386.

**7691 Excoecarin V<sub>2</sub>**

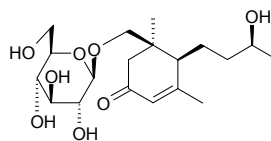
ent-2,3-Secokaur-16-en-2,3-dioic acid C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). Source: HAI QI *Excoecaria agallocha* (fresh stem). Ref: 4386.

**7692 Excoecarin V<sub>3</sub>**

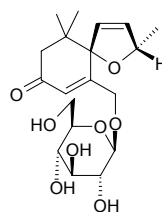
ent-3,4-Seco-16 $\alpha$ -hydroxyatis-4(19)-en-3-oic acid C<sub>20</sub>H<sub>32</sub>O<sub>3</sub> (320.48). Colorless plates (MeOH), mp 101~102°C,  $[\alpha]_D^{28} = -53.7^\circ$  ( $c = 1.0$ , MeOH). Source: HAI QI *Excoecaria agallocha* (fresh stem). Ref: 4386.

**7693 Excoecarioside A**

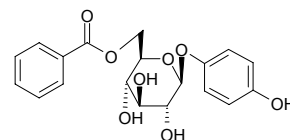
C<sub>19</sub>H<sub>32</sub>O<sub>8</sub> (388.46). Amorphous powder,  $[\alpha]_D^{25} = -10.3^\circ$  ( $c = 1.36$ , MeOH). Source: LU BEI GUI HUA *Excoecaria cochinchinensis* var. *viridis*. Ref: 4543.

**7694 Excoecarioside B**

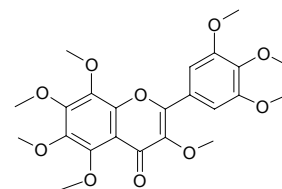
C<sub>19</sub>H<sub>28</sub>O<sub>8</sub> (384.43). Syrup,  $[\alpha]_D^{25} = +29.3^\circ$  ( $c = 0.82$ , MeOH). Source: LU BEI GUI HUA *Excoecaria cochinchinensis* var. *viridis*. Ref: 4543.

**7695 Eximine**

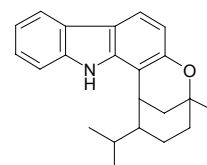
C<sub>19</sub>H<sub>20</sub>O<sub>8</sub> (376.37). Source: YAO YONG HEI MIAN SHEN YE *Breynia officinalis* (leaf). Ref: 2583.

**7696 Exoticin**

3,5,6,7,8,3',4',5'-Octamethoxyflavone [13364-94-8] C<sub>23</sub>H<sub>26</sub>O<sub>10</sub> (462.46). mp 124~125°C. Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 6, 11.

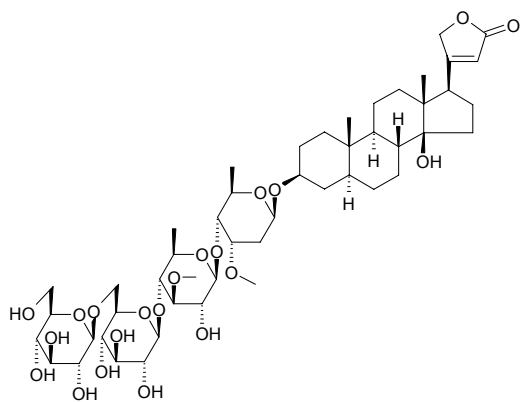
**7697 Exozoline**

[70561-79-4] C<sub>22</sub>H<sub>25</sub>NO (319.45). Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 11.

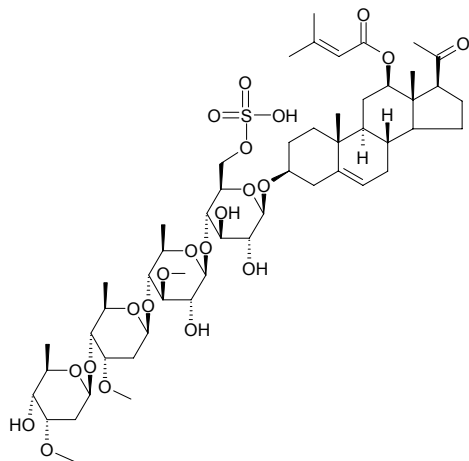


**7698 Extensumside A**

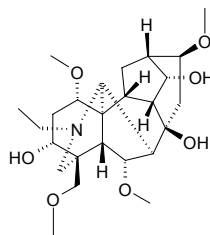
17 $\beta$ -Uzarienin-3-*O*- $\beta$ -glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -thevetopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -cymaropyranoside C<sub>49</sub>H<sub>78</sub>O<sub>21</sub> (1003.16). White amorphous powder, mp 176–178°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -12.5° (*c* = 0.4, MeOH). **Pharm:** Cytotoxic (9 cancer cell lines, mean GI<sub>50</sub> = 0.346 $\mu$ g/mL: NCI-H460, GI<sub>50</sub> = (0.107 $\pm$ 0.016) $\mu$ g/mL; Colon205, GI<sub>50</sub> = (0.123 $\pm$ 0.014) $\mu$ g/mL; MDA-MB-231, GI<sub>50</sub> = (0.527 $\pm$ 0.036) $\mu$ g/mL; MCF7, GI<sub>50</sub> = (0.385 $\pm$ 0.019) $\mu$ g/mL; MDA-MB-231, GI<sub>50</sub> = (0.470 $\pm$ 0.018) $\mu$ g/mL; OVCAR-3, GI<sub>50</sub> = (0.407 $\pm$ 0.017) $\mu$ g/mL; A549, GI<sub>50</sub> = (0.296 $\pm$ 0.008) $\mu$ g/mL; HT29, GI<sub>50</sub> = (0.436 $\pm$ 0.011) $\mu$ g/mL; ACHN, GI<sub>50</sub> = (0.361 $\pm$ 0.022) $\mu$ g/mL; control Taxol, GI<sub>50</sub> = (0.102 $\pm$ 0.009) $\mu$ g/mL, (0.099 $\pm$ 0.001) $\mu$ g/mL, (0.028 $\pm$ 0.006) $\mu$ g/mL, (0.030 $\pm$ 0.001) $\mu$ g/mL, (0.032 $\pm$ 0.003) $\mu$ g/mL and (0.088 $\pm$ 0.004) $\mu$ g/mL), respectively for last 6 cell lines). **Source:** CHI GUO TENG *Myriopteron extensum* (whole herb). **Ref:** 4992.

**7699 Extensumside B**

12-(3-Methylbut-2-enyloxy)pregn-5-en-20-one 3-*O*-[ $\beta$ -cymaropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -cymaropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -thevetopyranosyl-(1 $\rightarrow$ 4)-(6-*O*-sulfo- $\beta$ -glucopyranoside)] C<sub>53</sub>H<sub>84</sub>O<sub>22</sub>S (1105.31). White amorphous powder, mp 196–198°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -12.0° (*c* = 0.4, MeOH). **Pharm:** Cytotoxic inactive (NCI-H460, Colon205, MDA-MB-231, all GI<sub>50</sub> > 100 $\mu$ g/mL). **Source:** CHI GUO TENG *Myriopteron extensum* (whole herb). **Ref:** 4992.

**7700 Ezochasmanine**

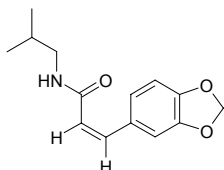
C<sub>25</sub>H<sub>41</sub>NO<sub>7</sub> (467.61). **Source:** ZHUA KUI GUA YE WU TOU *Aconitum hemsleyanum* var. *leueanthus* (root: yield = 0.00038%dw). **Ref:** 4678.



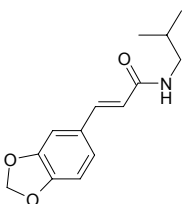
## F

**7701 cis-Fagaramide**

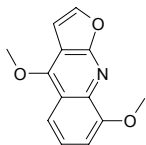
$C_{14}H_{17}NO_3$  (247.30). **Pharm:** Antioxidant (TLC-based assay, DPPH scavenger, MIQ = 10 $\mu$ g; control Quercetin, MIQ = 1 $\mu$ g). **Source:** *Fagara xanthoxyloides*. **Ref:** 5385.

**7702 trans-Fagaramide**

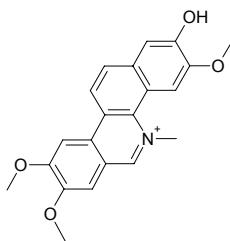
*N*-Isobutyl-3,4-methylenedioxybenzethenylamide  $C_{14}H_{17}NO_3$  (247.30). **Pharm:** Antioxidant (TLC-based assay, DPPH scavenger, MIQ = 10 $\mu$ g; control Quercetin, MIQ = 1 $\mu$ g)<sup>[5385]</sup>. **Source:** SHAN CI GU *Asarum sagittarioides*, *Fagara xanthoxyloides*. **Ref:** 660, 5385.

**7703  $\gamma$ -Fagarine**

4,8-Dimethoxyfuro[2,3-*b*]quinoline [524-15-2]  $C_{13}H_{11}NO_3$  (229.24). mp 142°C. **Pharm:** Antiarrhythmic (in clinic); antibacterial; antifungal; antispasmodic. **Source:** BAI XIAN PI *Dictamnus dasycarpus*, CHOU CAO *Ruta graveolens*, CHOU SHAN YANG *Orixa japonica* (stem: yield = 0.00038%dw)<sup>[4774]</sup>, GAO JIA SUO BAI XIAN *Dictamnus caucasicus*, HU JIAO HUA JIAO *Zanthoxylum piperitum*, MU<sup>(4)</sup> JU *Aegle marmelos*, QI HAN NING HUA JIAO *Zanthoxylum tsihanimposa*, ZHU YE JIAO *Zanthoxylum planispinum*, ZHU YE JIAO GEN *Zanthoxylum planispinum*. **Ref:** 6, 658, 4774.

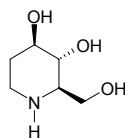
**7704 Fagaronine**

$C_{21}H_{20}NO_4$  (350.40). **Pharm:** Cytotoxic (binds to calf thymus DNA by intercalation and toxic to topoisomerases I and II)<sup>[5369]</sup>. **Source:** *Fagara xanthoxyloides*. **Ref:** 1521, 5369.

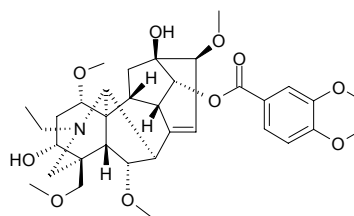
**7705 Fagomine**

3,4-Dihydroxy-2-piperidinemethanol [53185-12-9]  $C_6H_{13}NO_3$  (147.18).

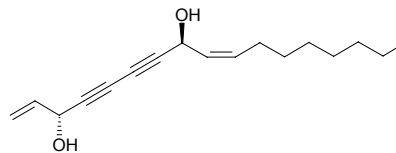
**Pharm:** Hypoglycemic (mus diabetes mellitus induced by SIZ, distinct effect)<sup>[2170]</sup>;  $\alpha$ -Glucosidase inhibitor (IC<sub>50</sub> = 15mmol/L)<sup>[4161]</sup>. **Source:** SANG ZHI *Morus alba*. **Ref:** 2170, 4161.

**7706 Falaconitine**

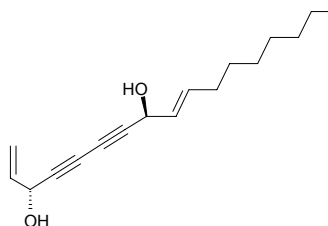
[62926-57-2]  $C_{34}H_{47}NO_{10}$  (629.75). **Pharm:** Causes paralysis, paroxysmal spasm, convulsion and death (gpg); similar action with aconitine (small animals). **Source:** FA KANG WU TOU *Aconitum falconeri*. **Ref:** 658.

**7707 cis-Falcarindiol**

1,9Z-Heptadecadiene-4,6-diyne-3R,8S-diol [55297-87-5]  $C_{17}H_{24}O_2$  (260.38). **Pharm:** Analgesic; plant antitoxin; antibacterial (*Staphylococcus aureus*, MIC = 2.2mg/mL; *Streptomyces scabies*, MIC = 1.5mg/mL; *Bacillus subtilis*, MIC = 1.4mg/mL; *Bacillus cereus*, MIC = 1.6mg/mL; *Pseudomonas aeruginosa*, MIC = 1.4mg/mL)<sup>[5305]</sup>; antifungal (*Aspergillus niger*, MIC = 0.5mg/mL)<sup>[5305]</sup>. **Source:** BEI SHA SHEN *Glehnia littoralis* (root without cortex: content = 0.146%)<sup>[5508]</sup>, CHOU A WEI *Ferula foetida* (root: yield = 0.00026%)<sup>[4659]</sup>, DIAN QIN *Sinodielsia yunnanensis* (root: yield = 2.90%), FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*], HE SHI FENG *Daucus carota* (root), LI JIANG QIAN HU *Peucedanum govanianum* var. *bicolo*, LONG YAN DU HUO *Aralia fargesii*, NAN HE SHI *Daucus carota*, SONG YE FANG FENG *Seseli yunnanense*, *Niphogeton ternata*. **Ref:** 2, 549, 557, 571, 658, 4156, 4305, 4659, 5305, 5508.

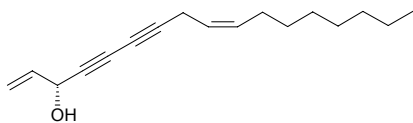
**7708 trans-Falcarindiol**

1,9E-Heptadecadiene-4,6-diyne-3R,8S-diol; Falcarindiol  $C_{17}H_{24}O_2$  (260.38). Brown oleaginous substance. **Source:** QIANG HUO *Notopterygium incisum*. **Ref:** 452.

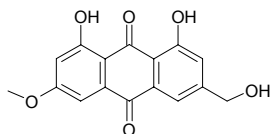


**7709 Falcarinol**

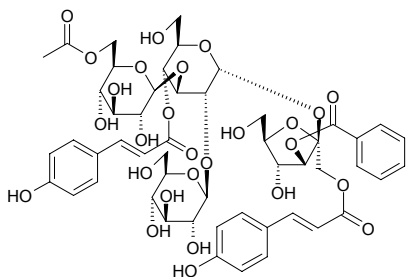
$C_{17}H_{24}O$  (244.38). Source: *Niphogeton ternata*. Ref: 4156.

**7710 Fallacinol**

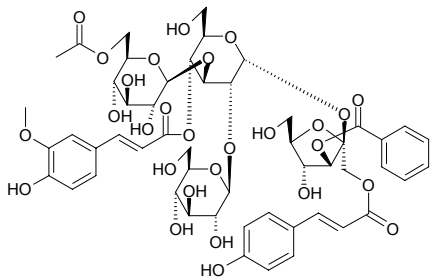
1,8-Dihydroxy-3-hydroxymethyl-6-methoxyanthraquinone [569-05-1]  
 $C_{16}H_{12}O_6$  (300.27). Source: HU ZHANG *Polygonum cuspidatum*. Ref: 2.

**7711 Fallaxose C**

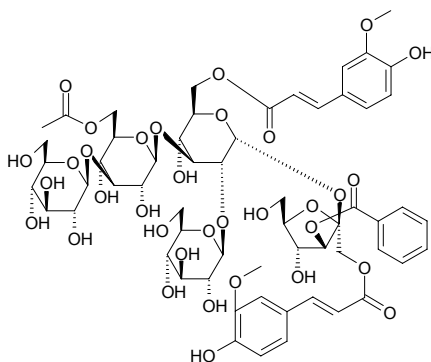
$C_{51}H_{60}O_{27}$  (1105.03).  $[\alpha]_D = -6.8^\circ$ . Source: JIA HUANG HUA YUAN ZHI  
*Polygala fallax* [Syn. *Polygala aureocauda*]. Ref: 2184.

**7712 Fallaxose D**

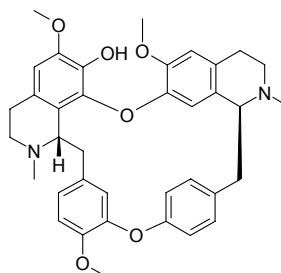
$C_{52}H_{62}O_{28}$  (1135.06).  $[\alpha]_D = -6.5^\circ$ . Source: JIA HUANG HUA YUAN ZHI  
*Polygala fallax* [Syn. *Polygala aureocauda*]. Ref: 2184.

**7713 Fallaxose E**

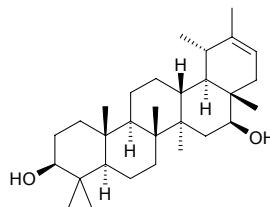
$C_{59}H_{74}O_{34}$  (1327.23).  $[\alpha]_D = +16.1^\circ$ . Source: JIA HUANG HUA YUAN ZHI  
*Polygala fallax* [Syn. *Polygala aureocauda*]. Ref: 2184.

**7714 Fangchinoline**

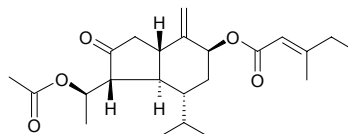
Demethyltetrandrine  $C_{37}H_{40}N_2O_6$  (608.74). mp 237–238°C (acetone); mp 177–179°C (CH<sub>3</sub>OH). Pharm: Cytotoxic (HeLa *in vitro*, ED<sub>50</sub> = 4.1 μg/mL); antihypertensive; platelet aggregation inhibitor (due to collagen); analgesic; anti-inflammatory (modulator of cytokine network: prevents integrin-mediated neutrophil adhesion and fMLP- or leukotriene B<sub>4</sub>-induced transmigration, IC<sub>50</sub> = 1–5 μg/mL)<sup>[4416]</sup>; IL-6 inhibitor (*in vitro*, IC<sub>50</sub> > 6 μmol/L)<sup>[4416]</sup>; LD<sub>50</sub> (mus, ip) ≥ 50 mg/kg. Source: FANG JI *Stephania tetrandra* (dried root: mean content of 6 origins = 0.759%<sup>[5508]</sup>), RU LAN *Stephania hernandifolia*. Ref: 2, 4, 5, 44, 658, 660, 4416, 5501, 5508.

**7715 Faradiol**

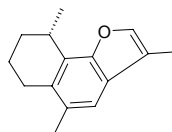
20-Taraxastene-3,16-diol [20554-95-4]  $C_{30}H_{50}O_2$  (442.73). mp 236–237°C.  
Source: KUAN DONG HUA *Tussilago farfara*. Ref: 1521.

**7716 Farfaratin**

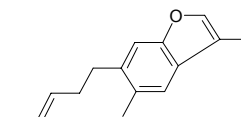
$C_{23}H_{34}O_5$  (390.52). White hyaloid crystals, mp 100–101°C. Source: KUAN DONG HUA *Tussilago farfara*. Ref: 145.

**7717 Farfugin A**

[36061-18-4]  $C_{15}H_{18}O$  (214.31). Source: LIAN PENG CAO *Farfugium japonicum*. Ref: 6.

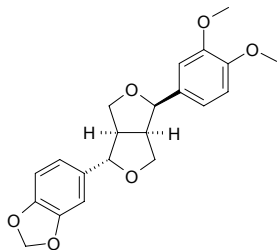
**7718 Farfugin B**

[36061-19-5]  $C_{15}H_{18}O$  (214.31). Source: LIAN PENG CAO *Farfugium japonicum*. Ref: 6.

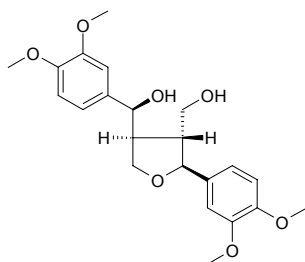


**7719 Fargesin**

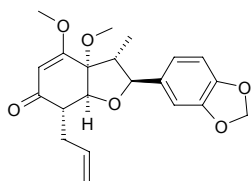
[31008-19-2]  $C_{21}H_{22}O_6$  (370.41). Colorless rhombic crystals, mp 130.0–130.5°C (methanol),  $[\alpha]_D^{22} = -111.7^\circ$  ( $c = 0.57$ , chloroform); mp 139°C. **Pharm:** Platelet aggregation inhibitor (strong, induced by PAF,  $IC_{50} = 10\mu\text{mol/L}$ , PAF receptor antagonist,  $ED_{50} = 1.3\mu\text{mol/L}$ ); phyto growth inhibitor (100 $\mu\text{g/mL}$ , *Amaranthus hypochondriacus*,  $\text{InRt} = (92.1 \pm 1.8)\%$ ; *E. crusgalli*,  $\text{InRt} = (83.7 \pm 2.2)\%$ )<sup>[5233]</sup>. **Source:** CI HUA JIAO *Zanthoxylum acanthopodium* (stem cortex), WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*], YU LAN *Magnolia denudata* [Syn. *Magnolia heptapata*], *Stauranthus perforatus* (root). **Ref:** 6, 543, 660, 900, 1521, 4439, 5253.

**7720 (-)-Fargesol**

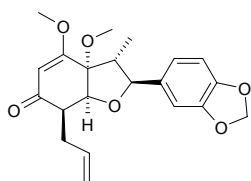
$C_{22}H_{28}O_7$  (404.46). **Source:** ZHOU YE MU LAN *Magnolia praecoccissima* (seed). **Ref:** 4181.

**7721 Fargesone A**

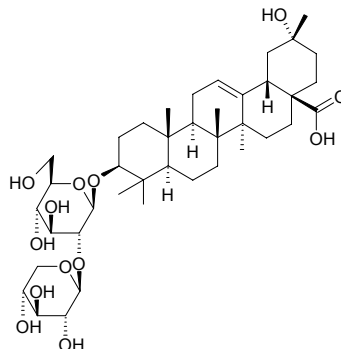
$C_{21}H_{24}O_6$  (372.42). **Pharm:** Calcium antagonist (gpg, colon bands). **Source:** WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*]. **Ref:** 658.

**7722 Fargesone B**

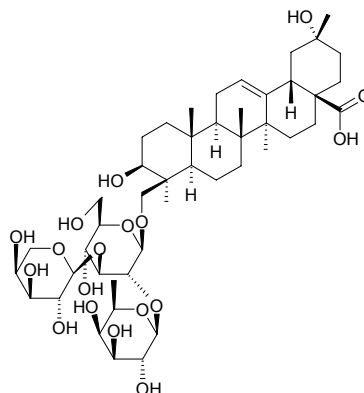
$C_{21}H_{24}O_6$  (372.42). **Source:** YU LAN *Magnolia denudata* [Syn. *Magnolia heptapata*]. **Ref:** 4439.

**7723 Fargoside A**

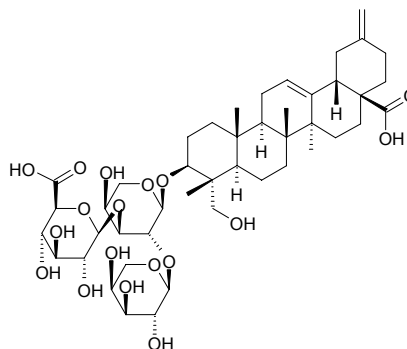
3 $\beta$ ,20 $\alpha$ -Dihydroxy-29-norolean-12-en-28-oic acid 3-*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside  $C_{40}H_{64}O_{13}$  (752.95). Amorphous solid,  $[\alpha]_D^{25} = +24.4^\circ$  ( $c = 1.0$ , MeOH). **Source:** WU YE GUA TENG *Holboellia fargesii* (root). **Ref:** 4109.

**7724 Fargoside B**

3 $\beta$ ,20 $\alpha$ ,24-Trihydroxy-29-norolean-12-en-28-oic acid 23-*O*- $\beta$ -D-fucopyranosyl-(1 $\rightarrow$ 2)-[ $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -D-glucopyranoside  $C_{46}H_{74}O_{18}$  (915.09). Amorphous solid,  $[\alpha]_D^{22} = +39.6^\circ$  ( $c = 1.0$ , MeOH). **Source:** WU YE GUA TENG *Holboellia fargesii* (root). **Ref:** 4109.

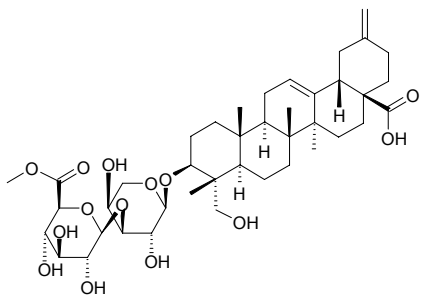
**7725 Fargoside C**

3 $\beta$ ,23-Dihydroxy-30-norolean-2,20(29)-dien-28-oic acid 3-*O*- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -D-glucopyranosyluronic acid-(1 $\rightarrow$ 3)]- $\alpha$ -L-arabinopyranoside  $C_{45}H_{68}O_{18}$  (897.03). Amorphous solid,  $[\alpha]_D^{25} = +54.0^\circ$  ( $c = 0.6$ , MeOH). **Source:** WU YE GUA TENG *Holboellia fargesii* (root). **Ref:** 4109.

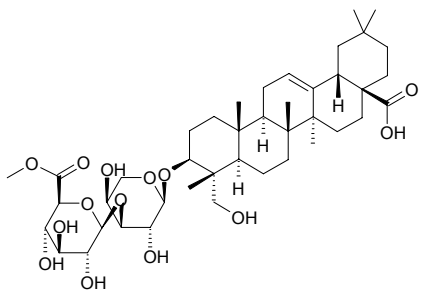


**7726 Fargoside D**

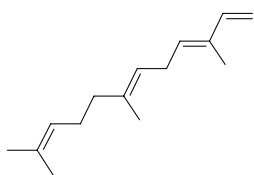
3 $\beta$ ,23-Dihydroxy-30-norolean-12,20(29)-dien-28-oic acid 3-*O*-methyl  $\beta$ -*D*-glucopyranosyluronate-(1 $\rightarrow$ 3)- $\alpha$ -*L*-arabinopyranoside C<sub>41</sub>H<sub>62</sub>O<sub>14</sub> (778.94). Amorphous solid,  $[\alpha]_D^{23} = +65.6^\circ$  ( $c = 0.5$ , MeOH). Source: WU YE GUA TENG *Holboellia fargesii* (root). Ref: 4109.

**7727 Fargoside E**

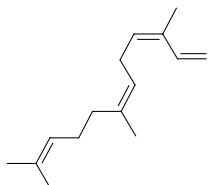
3 $\beta$ ,23-Dihydroxy-olean-12-en-28-oic acid 3-*O*-methyl  $\beta$ -*D*-glucopyranosyluronate-(1 $\rightarrow$ 3)- $\alpha$ -*L*-arabinopyranoside C<sub>42</sub>H<sub>66</sub>O<sub>14</sub> (794.99). Amorphous solid,  $[\alpha]_D^{28} = +18.3^\circ$  ( $c = 0.8$ , MeOH). Source: WU YE GUA TENG *Holboellia fargesii* (root). Ref: 4109.

**7728 (E,E)- $\alpha$ -Farnesene**

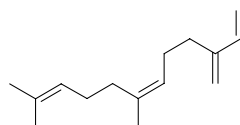
[21499-64-9] C<sub>15</sub>H<sub>24</sub> (204.36). Source: GAN JIANG *Zingiber officinale*. Ref: 2.

**7729 (Z,Z)- $\alpha$ -Farnesene**

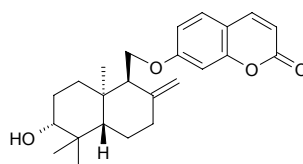
C<sub>15</sub>H<sub>24</sub> (204.36). bp 128~130°C/12mmHg. Source: DU SONG SHI *Juniperus rigida*, HONG CHAI HU *Bupleurum scorzonerifolium*, JU PI *Citrus reticulata*, MU<sup>(3)</sup> JU *Matricaria chamomilla* [Syn. *Matricaria recutita*], PI PA YE *Eriobotrya japonica*, PI PA YE *Eriobotrya japonica*, SHENG JIANG *Zingiber officinale*, *Malus* sp., *Pyrus* sp. Ref: 2, 660.

**7730  $\beta$ -Farnesene**

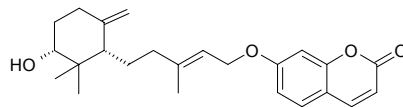
C<sub>15</sub>H<sub>24</sub> (204.36). bp 121~122°C/9mmHg. Source: BO SHI QIE *Solanum berthaultii*, CHAN CHU DAN *Bufo bufo gargarizans*; *Bufo melanostictus*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], HUA DONG LAN CI TOU *Echinops grijsii*, HUANG HUA HAO *Artemisia annua*, HUO XIANG *Agastache rugosus*, PI PA YE *Eriobotrya japonica*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SHENG JIANG *Zingiber officinale*, TAN XIANG *Santalum album*, XI YANG SHEN *Panax quinquefolium*. Ref: 2, 660.

**7731 Farnesiferol A**

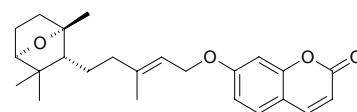
[511-33-1] C<sub>24</sub>H<sub>30</sub>O<sub>4</sub> (382.50). mp (-) 155.0~155.5°C, mp ( $\pm$ ) 152~156°C. Source: A WEI *Ferula assafoetida*. Ref: 6.

**7732 Farnesiferol B**

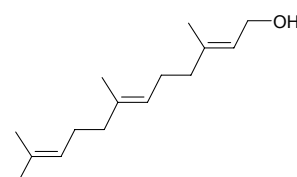
[54990-68-0] C<sub>24</sub>H<sub>30</sub>O<sub>4</sub> (382.50). mp 112.5~113.5°C. Source: A WEI *Ferula assafoetida*. Ref: 6.

**7733 Farnesiferol C**

[512-17-4] C<sub>24</sub>H<sub>30</sub>O<sub>4</sub> (382.50). mp 83.5~84.5°C. Source: A WEI *Ferula assafoetida*. Ref: 6.

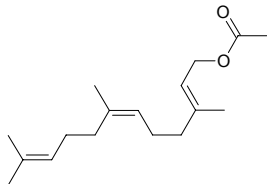
**7734 Farnesol**

3,7,11-Trimethyl-2,6,10-dodecatrien-1-ol [4602-84-0] C<sub>15</sub>H<sub>26</sub>O (222.37). bp 160°C/10mmHg. Pharm: Flavorant. Source: DAI DAI HUA *Citrus aurantium* var. *amara*, HUANG KUI *Abelmoschus moschatus* [Syn. *Hibiscus abelmoschus*], JIN YIN HUA *Lonicera japonica*, LA MEI HUA *Chimonanthus fragrans* [Syn. *Chimonanthus praecox*], PI PA YE *Eriobotrya japonica*, PI PA YE *Eriobotrya japonica*, PU TI SHU HUA *Tilia miqueliana*, SHENG JIANG *Zingiber officinale*. Ref: 2, 6, 658, 660.

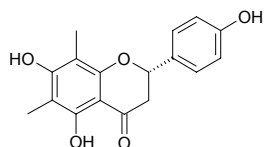


**7735 Farnesyl acetate**

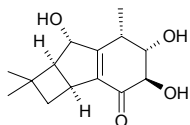
$C_{17}H_{28}O_2$  (264.41). bp 169~170°C/10mmHg. Source: HUANG HUA HAO *Artemisia annua*, MU HAO *Artemisia japonica*. Ref: 6, 660.

**7736 Farrerol**

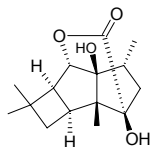
[24211-30-1]  $C_{17}H_{16}O_5$  (300.31). mp ( $\pm$ ) 223~224°C. Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 25 $\mu$ g/mL); antitussive (dispels phlegm, main effective component in *Rhododendron dauricum* MAN SHAN HONG to treat trachitis); inhibits tissue respiration in lung trachea (rat, *in vitro*); LD<sub>50</sub> (mus, orl) = (1500 $\pm$ 23)mg/kg. Source: MAN SHAN HONG *Rhododendron dauricum* (branchlet-leaf or flower: content = 0.1%<sup>[5501]</sup>, content = 0.07%<sup>[5508]</sup>; leaf: mean content of 8 origins = 0.097%<sup>[5527]</sup>), XIN XI LAN MA *Phormium tenax*. Ref: 4, 6, 658, 5501, 5508, 5527.

**7737 Fascicularone A**

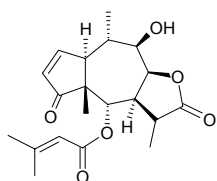
(1*S*,9*S*)-4 $\alpha$ ,11,11-Trimethyl-2 $\alpha$ ,5 $\alpha$ ,6 $\beta$ -trihydroxytricyclo[5,4,0,0<sup>2,5</sup>]undec-3-en-7-one  $C_{14}H_{20}O_4$  (252.31). Colorless needles, mp 75~77°C,  $[\alpha]_D^{20} = +323.8^\circ$  ( $c = 0.56$ ,  $CHCl_3$ ). Source: CU SHENG HUANG REN SAN *Naematoloma fasciculare*. Ref: 3775.

**7738 Fascicularone B**

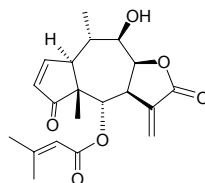
(1*S*,8*S*)-4 $\alpha$ ,7 $\beta$ ,10,10-Tetramethyl-3 $\beta$ ,6 $\beta$ -dihydroxytricyclo[5,3,0,0<sup>2,5</sup>]decan-2 $\alpha$ ,6-olide  $C_{15}H_{22}O_4$  (266.34). Colorless needles, mp 127~128°C,  $[\alpha]_D^{20} = +63.5^\circ$  ( $c = 0.88$ ,  $CHCl_3$ ). Source: CU SHENG HUANG REN SAN *Naematoloma fasciculare*. Ref: 3775.

**7739 Fastigilin B**

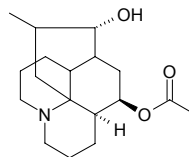
[6995-11-5]  $C_{20}H_{26}O_6$  (362.43). mp 259~261°C (acetone-petroleum ether). Pharm: Antineoplastic; cytotoxic. Source: BAI LAI SHI JU *Baileya multiradiata*. Ref: 658.

**7740 Fastigilin C**

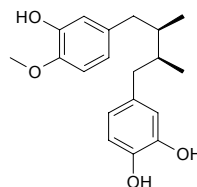
[6995-12-6]  $C_{20}H_{24}O_6$  (360.41). mp 197~199°C (acetone-isopropane ether),  $[\alpha]_D^{23} = -85.8^\circ$  ( $c = 1.11$ ). Pharm: Antineoplastic (mus, P<sub>388</sub> and Lewis lung cancer, *in vivo*); cytotoxic (mus, P<sub>388</sub> *in vitro*, ED<sub>50</sub> = 0.004 $\mu$ g/mL; mus, L<sub>1210</sub> *in vitro*, ED<sub>50</sub> < 0.01 $\mu$ g/mL; KB, ED<sub>50</sub> = 1.0 $\mu$ g/mL). Source: BAI LAI SHI JU *Baileya multiradiata*. Ref: 661.

**7741 Fawcettiine**

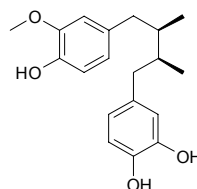
$\beta$ -Lofoline [6899-87-2]  $C_{18}H_{29}NO_3$  (307.44). mp 166~167°C. Source: SHEN JIN CAO *Lycopodium japonicum* [Syn. *Lycopodium clavatum*]. Ref: 6.

**7742 FB1**

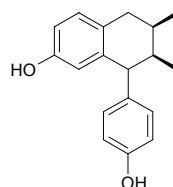
$C_{19}H_{24}O_4$  (316.40). Pharm: Anti-HIV. Source: SAN CHI LA RUI A *Larrea tridentata*. Ref: 2268.

**7743 FB2**

$C_{19}H_{24}O_4$  (316.40). Pharm: Anti-HIV (strong). Source: SAN CHI LA RUI A *Larrea tridentata*. Ref: 2268.

**7744 FB3**

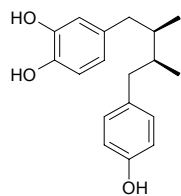
$C_{18}H_{20}O_2$  (268.36). Pharm: Anti-HIV. Source: SAN CHI LA RUI A *Larrea tridentata*. Ref: 2268.



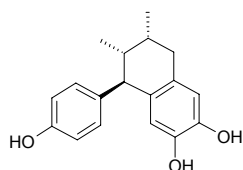


**7745 FB4**

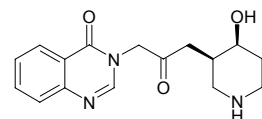
$C_{18}H_{22}O_3$  (286.37). **Pharm:** Anti-HIV. **Source:** SAN CHI LA RUI A *Larrea tridentata*. **Ref:** 2268.

**7746 FB5**

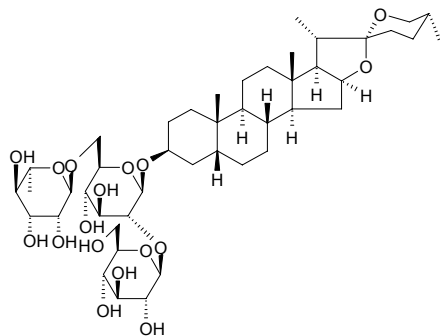
3'-Demethoxy-6-O-demethylisogaucin  $C_{18}H_{20}O_3$  (284.36). **Pharm:** Anti-HIV; antioxidant (Takamatsu DCFH method, myelomonocytic HL-60 cells,  $IC_{50} = (1.6 \pm 0.4) \mu\text{g/mL}$ ; control NDGA,  $IC_{50} = (0.7 \pm 0.3) \mu\text{g/mL}$ , Vitamin C,  $IC_{50} = (1.9 \pm 0.7) \mu\text{g/mL}$ , Trolox,  $IC_{50} = (1.4 \pm 0.5) \mu\text{g/mL}$ )<sup>[3850]</sup>; cytotoxic (XTT assay, HL-60 cells,  $IC_{50} = (13.6 \pm 2.6) \mu\text{g/mL}$ ; control NDGA,  $IC_{50} = (2.6 \pm 0.2) \mu\text{g/mL}$ , Vitamin C,  $IC_{50} > 10.0 \mu\text{g/mL}$ , Trolox,  $IC_{50} > 10.0 \mu\text{g/mL}$ )<sup>[3850]</sup>. **Source:** SAN CHI LA RUI A *Larrea tridentata*. **Ref:** 1521, 2268, 3850.

**7747 Febrifugine**

$C_{16}H_{19}N_3O_3$  (301.35). mp 139–140°C. **Source:** CHANG SHAN *Dichroa febrifuga* (in 1948, the compound was isolated from the plant by F.A. Kuehl, et al.)<sup>[5505]</sup>. **Ref:** 5505.

**7748 Fenbaqia saponin**

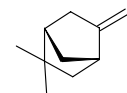
$C_{45}H_{74}O_{17}$  (887.08). **Pharm:** Hemolytic (chicken blood trial, distinct effect). **Source:** HEI GUO BA QIA *Smilax glauco-china*. **Ref:** 2165.

**7749  $\alpha$ -Fenchene**

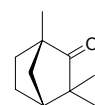
[471-84-1]  $C_{10}H_{16}$  (136.24). bp (+) 155–156°C, (–) 153–154°C/720mmHg, ( $\pm$ ) 154–156°C. **Source:** XIE CAO *Valeriana officinalis*. **Ref:** 6.

**7750  $\beta$ -Fenchene**

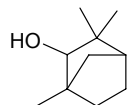
[33404-67-0]  $C_{10}H_{16}$  (136.24). **Source:** HONG CHAI HU *Bupleurum scorzonrifolium*, SHENG JIANG *Zingiber officinale*. **Ref:** 2.

**7751 Fenchone**

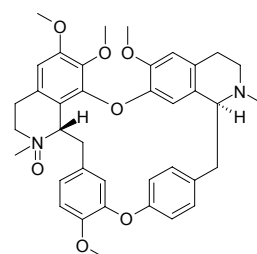
1,3,3-Trimethylbicyclo[2.2.1]heptan-2-one [1195-79-5]  $C_{10}H_{16}O$  (152.24). mp (+) 5.5°C, (–) 6°C, bp ( $\pm$ ) 72–73°C/12mmHg. **Pharm:** Local stimulant. **Source:** BEI MEI YA BAI *Thuja occidentalis*, CE BAI YE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*], FU SHE SONG *Pinus radiata*, HUANG HUA HAO *Artemisia annua*, HUI XIANG *Foeniculum vulgare*, LIU YE MU LAN *Magnolia salicifolia*, SHUI SHAN *Metasequoia glyptostroboides*, XIA KU CAO *Prunella vulgaris*, XIANG LI *Chenopodium botrys*, XIANG ZHI LENG SHAN *Abies balsamea*, XUAN YE XIANG QING *Anaphalis contorta*, ZHANG MU *Cinnamomum camphora*. **Ref:** 6, 658, 660.

**7752 Fenchyl alcohol**

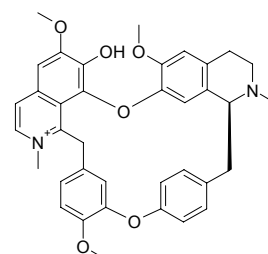
1,3,3-Trimethyl-2-norbornanol  $C_{10}H_{18}O$  (154.25). bp 200°C. **Source:** GANG SONG *Baeckea frutescens*, SHENG JIANG *Zingiber officinale*. **Ref:** 2.

**7753 Fentifangine A**

[115556-32-6]  $C_{38}H_{42}N_2O_7$  (638.77). **Source:** FANG JI *Stephania tetrandra*. **Ref:** 2.

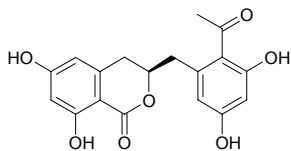
**7754 Fentifangine D**

1,3,4-Tridehydrofentifanginolinium [115439-62-8]  $C_{37}H_{37}N_2O_6^+$  (605.72). **Source:** FANG JI *Stephania tetrandra*. **Ref:** 2, 1521.

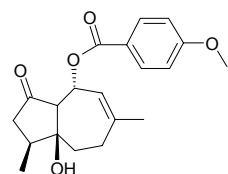


**7755 Feralolide**

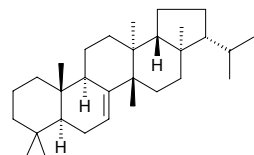
[149418-38-2] C<sub>18</sub>H<sub>16</sub>O<sub>7</sub> (344.32). mp 176~178°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -44.9° (c = 0.025, MeOH). Source: HAO WANG JIAO LU HUI *Aloe ferox*. Ref: 730.

**7756 Fercomin**

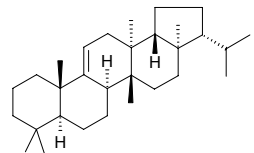
C<sub>20</sub>H<sub>24</sub>O<sub>5</sub> (344.41). Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 2.3mg/mL; *Streptomyces scabies*, MIC = 2.1mg/mL; *Bacillus subtilis*, MIC = 1.7mg/mL; *Bacillus cereus*, MIC = 1.4mg/mL; *Pseudomonas aeruginosa*, MIC = 1.00mg/mL); antifungal (*Aspergillus niger*, MIC = 1.0mg/mL). Source: HE SHI FENG *Daucus carota* (root). Ref: 5305.

**7757 7-Fernene**

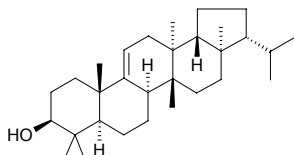
C<sub>30</sub>H<sub>50</sub> (410.73). mp 208.5~209.5°C. Source: TIE SI QI *Adiantum pedatum*. Ref: 6.

**7758 9(11)-Fernene**

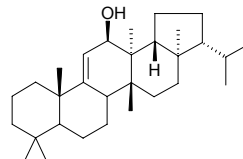
C<sub>30</sub>H<sub>50</sub> (410.73). mp 170~171°C. Source: GUAN ZHONG *Dryopteris crassirhizoma*, SHUI LONG GU *Polypodium niponicum*, TIE SI QI *Adiantum pedatum*. Ref: 6, 660.

**7759 Fernenol**

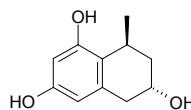
C<sub>30</sub>H<sub>50</sub>O (426.73). mp 194°C. Source: AI YE *Artemisia argyi*, LONG XU CAO *Poa sphondylodes*, MAO CAO YE *Imperata cylindrica* var. *major*. Ref: 6.

**7760 Fern-9(11)-en-12β-ol**

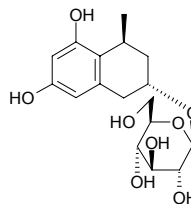
C<sub>30</sub>H<sub>50</sub>O (426.73). Source: ZHU ZONG CAO *Adiantum capillus-veneris* (fresh frond). Ref: 4230.

**7761 Feroxidin**

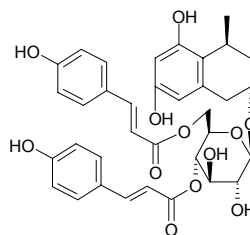
(-)-Feroxidin; (6*R*,8*R*)-5,6,7,8-Tetrahydro-8-methyl-1,3,6-naphthalenetriol [129622-85-1] C<sub>11</sub>H<sub>14</sub>O<sub>3</sub> (194.23). White amorphous powder, mp 84°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -11.3° (c = 0.11, MeOH). Source: HAO WANG JIAO LU HUI *Aloe ferox*. Ref: 731.

**7762 Feroxin A**

[142905-36-0] C<sub>17</sub>H<sub>24</sub>O<sub>8</sub> (356.38). Source: HAO WANG JIAO LU HUI *Aloe ferox*. Ref: 732.

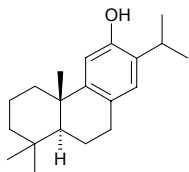
**7763 Feroxin B**

[142905-37-1] C<sub>35</sub>H<sub>36</sub>O<sub>12</sub> (648.67). Source: HAO WANG JIAO LU HUI *Aloe ferox*. Ref: 732.

**7764 Ferruginol**

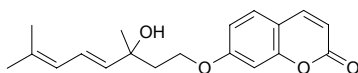
8,11,13-Abietatrien-12-ol [514-62-5] C<sub>20</sub>H<sub>30</sub>O (286.46). mp 57~59°C, bp 175°C/0.3mmHg, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +40.3° (c = 1.0, EtOH), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +43° (c = 1.0, CHCl<sub>3</sub>), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +39.3° (c = 0.70, CHCl<sub>3</sub>); [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +40.6°. Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 31.2μg/mL (MCC > 250μg/mL), control Tetracycline, MIC = 1.56μg/mL; *Bacillus subtilis*, MIC = 7.8μg/mL (MCC > 250μg/mL), Tetracycline, MIC = 1.56μg/mL; *Enterococcus faecalis*, MIC = 7.8μg/mL (MCC > 250μg/mL), Tetracycline,

MIC = 1.56µg/mL; *Listeria monocytogenes*, MIC = 7.8µg/mL (MCC = 31.25µg/mL), Tetracycline, MIC < 0.39µg/mL; *Salmonella enteritidis*, MIC > 250µg/mL, Tetracycline, MIC = 1.56µg/mL; *Escherichia coli*, MIC > 250µg/mL, Tetracycline, MIC = 1.56µg/mL; *Shigella sonnei*, MIC > 250µg/mL, Tetracycline, MIC = 6.25µg/mL<sup>[5401]</sup>; antifungal (*Candida albicans*, MIC > 250µg/mL, Miconazole, MIC = 8µg/mL; *Candida krusei*, MIC > 250µg/mL, Miconazole, MIC = 2µg/mL)<sup>[5401]</sup>; cytotoxic (Col2, IC<sub>50</sub> = 9.7µg/mL, control Ellpticine, IC<sub>50</sub> = 0.3µg/mL; LNCaP, IC<sub>50</sub> = 17.1µg/mL, Ellpticine, IC<sub>50</sub> = 0.8µg/mL; P<sub>388</sub>, IC<sub>50</sub> = 16.3µg/mL, Ellpticine, IC<sub>50</sub> = 0.1µg/mL; A2780, IC<sub>50</sub> = 33.3µg/mL, control Actinomycin D, IC<sub>50</sub> = 0.001µg/mL; KB-VI, IC<sub>50</sub> > 20µg/mL; KB, IC<sub>50</sub> > 20µg/mL; Lu1, IC<sub>50</sub> > 20µg/mL; BC-1, IC<sub>50</sub> > 20µg/mL)<sup>[5400]</sup>; cytotoxic (EBV-EA inhibitor TPA-induced, mol ratio/TPA = 1000, InRt = 100%)<sup>[5352]</sup>. **Source:** CHANG GENG CU FEI *Cephalotaxus harringtonia* var. *drupacea*, DAN SHEN *Salvia miltiorrhiza* (dried root: content = 0.117%)<sup>[5508]</sup>, DU SONG SHI *Juniperus rigida*, GAN XI SHU WEI CAO *Salvia przewalskii*, RI BEN XIANG BAI JING PI *Thuja standishii*, SAN YE SHU WEI CAO *Salvia trijuga*, XIONG RUI ZHUANG SHU WEI CAO *Salvia staminea*. **Ref:** 6, 116, 182, 4538, 5352, 5400, 5401, 5508.



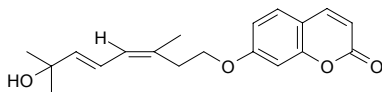
#### 7765 Ferulagol A

7-[(*E*)-3'-Hydroxy-3',7'-dimethyl-4',6'-octadienyloxy]coumarin C<sub>19</sub>H<sub>22</sub>O<sub>4</sub> (314.38). **Source:** *Ferula ferulago* (root). **Ref:** 5163.



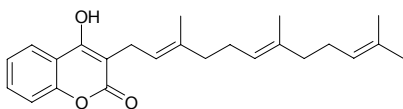
#### 7766 Ferulagol B

7-[(3'*Z*,5'*E*)-7'-Hydroxy-3',7'-dimethyl-3',5'-octadienyloxy]coumarin C<sub>19</sub>H<sub>22</sub>O<sub>4</sub> (314.38). **Source:** *Ferula ferulago* (root). **Ref:** 5163.



#### 7767 Ferulenol

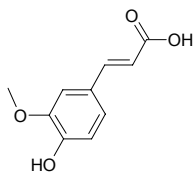
C<sub>24</sub>H<sub>30</sub>O<sub>3</sub> (366.50). **Pharm:** Antibacterial (*Staphylococcus aureus*, MIC = 2.4mg/mL; *Streptomyces scabies*, MIC = 2.2mg/mL; *Bacillus subtilis*, MIC = 2.0mg/mL; *Bacillus cereus*, MIC = 2.1mg/mL; *Pseudomonas aeruginosa*, MIC = 2.3mg/mL; *Escherichia coli*, MIC = 4.8mg/mL)<sup>[5305]</sup>; antifungal (*Fusarium oxysporum*, MIC = 4.6mg/mL; *Aspergillus niger*, MIC = 4.7mg/mL)<sup>[5305]</sup>. **Source:** HE SHI FENG *Daucus carota* (root). **Ref:** 5305.



#### 7768 Ferulic acid

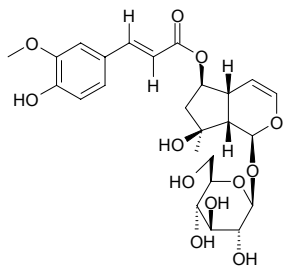
4-Hydroxy-3-methoxycinnamic acid [537-98-4] C<sub>10</sub>H<sub>10</sub>O<sub>4</sub> (194.19). White powder, mp 170~171°C (Me<sub>2</sub>CO); mp 173~178°C. **Pharm:** Antineoplastic; antimitotic; cytotoxic (cyclooxygenase-1 inhibitor)<sup>[5038]</sup>; antibacterial; antiestrogenic; antifungal; antihepatotoxic; platelet aggregation inhibitor; antioxidant (DPPH scavenger, EC<sub>50</sub> = 3.8µg/mL = 19.6µmol/L, control Ascorbic acid, EC<sub>50</sub> = 1.6µg/mL = 9.1µmol/L)<sup>[4154]</sup>; DPPH scavenger (SC<sub>50</sub> = 4.5µmol/L)<sup>[4247]</sup>; antioxidant (superoxide anion radical scavenger, superoxide dismutase method, IC<sub>50</sub> for Formazane formation activity > 100µmol/L)<sup>[4247]</sup>; antitubercular (*Mycobacterium tuberculosis*, MIC > 128µg/mL, cytotoxic, Vero cells, IC<sub>50</sub> > 102µg/mL, positive control Rifampin, MIC = 0.03µg/mL, IC<sub>50</sub> = 98.3µg/mL, SI = 3277)<sup>[4986]</sup>; platelet aggregation inhibitor (100µmol/L AA-induced, 5µg/mL, InRt = (100.0±0.0)%, p < 0.001, control Aspirin, 50µg/mL, InRt = (100±0.0)%; 10µg/mL collagen-induced, 100µg/mL, InRt = (93.5±1.3)%, p < 0.001, Aspirin, 50µg/mL, InRt = (12.2±1.7)%; 2nmol/L PAF-induced, 100µg/mL, InRt = (16.0±1.3)%, p < 0.05, Aspirin, 50µg/mL, InRt = (9.6±1.2)%; 0.1µg/mL thrombin-induced, 100µg/mL, InRt = (7.2±2.1)%); neuroprotectant (primary cultures of rat cortical cells injured by glutamate, 0.1µmol/L, cell viability = (54.8±1.1)%, p < 0.01, control MK-801, 0.1µmol/L, cell viability = (31.8±7.1)%, APV, 0.1µmol/L, cell viability = (5.7±1.9)%, XNQX, 0.1µmol/L, cell viability = (28.1±5.6)%)<sup>[3967]</sup>. **Source:** A WEI *Ferula assafoetida* (balsam: content scope = 0.03%~0.09%)<sup>[5501]</sup>, AI WA JIN GU CAO *Ajuga iva*, BEI SHA SHEN *Glehnia littoralis* (underground part), BEI XUAN SHEN *Scrophularia buergeriana* (root), CHA XIONG *Ligusticum sinense* cv. *chaxiong*, CHOU A WEI *Ferula foetida*, CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*] (rhizome: mean content of 5 batch samples = 0.065%)<sup>[5508]</sup>, DA CHE QIAN *Plantago major*, DA SAN YE SHENG MA *Cimicifuga heracleifolia* (dried rhizome: content = 0.004%)<sup>[5508]</sup>, DANG GUI *Angelica sinensis* (dried root: mean content = 0.058%)<sup>[5508]</sup>, DANG SHEN *Codonopsis pilosula* (dried root: mean content = 0.00221%)<sup>[5508]</sup>, DI SHAO GUA *Cynanchum thesioides*, DUAN PIAN GAO BEN *Ligusticum brachylobum* (root and rhizome: content = 0.02%)<sup>[5508]</sup>, FEN CHA DANG GUI *Angelica furcijuga* (flower), GAO BEN *Ligusticum sinense* (root and rhizome: mean content of 8 origins = 0.084%)<sup>[5508]</sup>, GAO GUI CHUN HUANG JU *Anthemis nobilis*, GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00070%)<sup>[4706]</sup>, HU HUANG LIAN *Picrorhiza kurroa* (dried rhizome: content scope = 0.82%~2.41%)<sup>[5508]</sup>, HUANG LIAN *Coptis chinensis*, HUI XIANG JING YE *Foeniculum vulgare*, JIA BAI HE *Notholirion hyacinthinum* [Syn. *Notholirion bulbiferum*], JING MI *Oryza sativa*, KE XI JIA SONG *Pinus laricio*, LAI FU *Raphanus sativus*, LAI FU ZI *Raphanus sativus*, LAO SHU GUA *Capparis spinosa*, LI MENG YE *Citrus limonia*, LIAO GAO BEN *Ligusticum jeholense* (root and rhizome: mean content of 5 origins = 0.137%)<sup>[5508]</sup>, LUAN BAN ZAO ZHUI *Arenaria kansuensis* var. *ovatipeatala* (whole herb: mean content = 0.0406%)<sup>[5508]</sup>, MAO GENG XI XIAN *Siegesbeckia orientalis* var. *glabrescens* [Syn. *Siegesbeckia glabrescens*], MI PI KANG *Oryza sativa*, MU ZEI *Equisetum hiemale*, NING MENG GEN *Citrus limon*, NING MENG PI *Citrus limon*, OU DANG GUI *Levisticum officinale* (dried root: mean content = 0.025%)<sup>[5508]</sup>, QIANG HUO *Notopterygium incisum*, SHEN JIN CAO *Lycopodium japonicum* [Syn. *Lycopodium clavatum*], SHENG MA *Cimicifuga foetida* (dried rhizome: content scope of 10 origins = 0.003%~0.063%, mean content = 0.018%)<sup>[5508]</sup>, SHI DIAO BAI *Asparagus officinalis*, SHU HUA JIE CAO *Valeriana laxiflora* (aerial parts and root),

SUAN ZAO REN *Ziziphus jujuba* var. *spinosa*, TAI WAN FENG DOU CAI *Petasites formosanus*, TAI WAN FU RONG *Hibiscus taiwanensis*, TI MU CAO *Phleum pratense*, TIAN CAI *Beta vulgaris*, XI LA GANG LIU *Periploca graeca*, XI ZANG HU HUANG LIAN *Picrorhiza scrophulariiflora* (dried rhizome: content scope = 0.82%~2.41%<sup>[5508]</sup>), XIA TIAN WU *Corydalis decumbens* [Syn. *Corydalis amabilis*], XIAN REN ZHANG *Opuntia dillenii* (fresh stem: yield = 0.00053%), XIAO JIE JIN CAO *Huperzia selago* [Syn. *Lycopodium selago*], XIN JIANG GAO BEN *Conioselinum vaginatum* (root and rhizome: content = 0.30%)<sup>[5508]</sup>, XING AN SHENG MA *Cimicifuga dahurica* (dried rhizome: mean content of 3 origins = 0.010%<sup>[5508]</sup>), XUAN FU HUA *Inula britannica*, YANG CONG *Allium cepa*, YAO YONG PU GONG YING *Taraxacum officinale*, YI YE TIE SHAN *Tsuga heterophylla*, YI ZHU QIAN MA *Urtica dioica*, ZI BAI PI *Catalpa ovata*, occurs in many plants (widely distributed in plants. firstly isolated from *Ferula foetida*. found by Bate-Smith in 33% of investigated dicotyledonous and 67% of monocotyledonous plants). Ref: 2, 4, 456, 476, 500, 507, 512, 601, 602, 658, 660, 663, 2377, 2529, 3967, 4154, 4247, 4454, 4706, 4986, 5038, 5501, 5508.



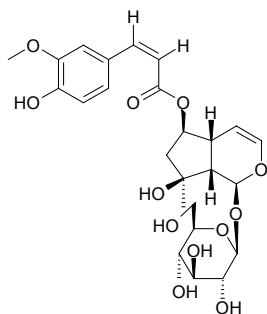
#### 7769 6-O-E-Feruloylajugol

C<sub>25</sub>H<sub>32</sub>O<sub>12</sub> (254.53). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*]. Ref: 2.



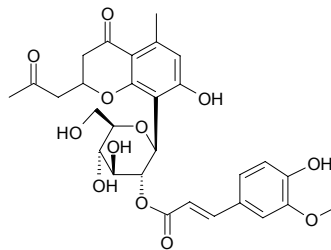
#### 7770 6-O-Z-Feruloylajugol

C<sub>25</sub>H<sub>32</sub>O<sub>12</sub> (524.53). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*]. Ref: 2.



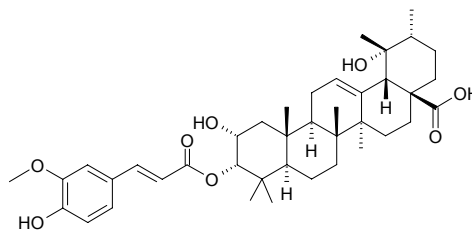
#### 7771 2''-O-Feruloylaloetin

C<sub>29</sub>H<sub>32</sub>O<sub>12</sub> (572.57). Source: LU HUI *Aloe vera* [Syn. *Aloe barbadensis*]. Ref: 2.



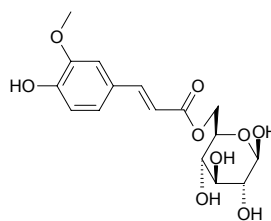
#### 7772 3-O-trans-Feruloylaleucaphic acid

C<sub>40</sub>H<sub>56</sub>O<sub>8</sub> (6648.9). Source: PI PA YE *Eriobotrya japonica* (stem and leaf). Ref: 3061.



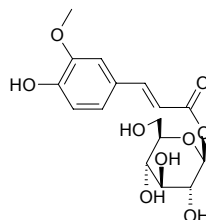
#### 7773 6-O-Feruloyl-beta-D-glucopyranoside

C<sub>16</sub>H<sub>20</sub>O<sub>9</sub> (356.33). Pharm: Antioxidant inactive (hydroxyl radical scavenger, IC<sub>50</sub> > 400 μmol/L, control Ascorbic acid, IC<sub>50</sub> = 51.8 μmol/L, superoxide anion radical scavenger, IC<sub>50</sub> > 400 μmol/L, control Ascorbic acid, IC<sub>50</sub> = 86.2 μmol/L)<sup>[4289]</sup>. Source: XI ZANG HU HUANG LIAN *Picrorhiza scrophulariiflora* (root). Ref: 4289.



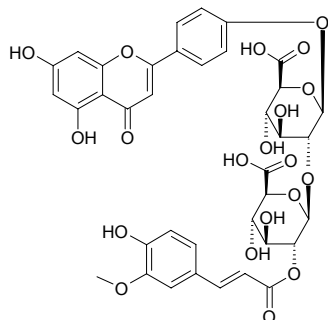
#### 7774 1-O-Feruloyl-beta-glucose

C<sub>16</sub>H<sub>20</sub>O<sub>9</sub> (356.33). Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0053%dw). Ref: 4723.



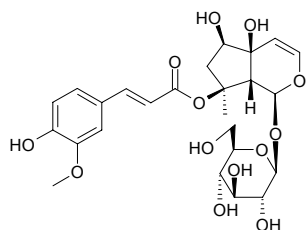
**7775 4'-O-[2'-O-E-Feruloyl-O-β-D-glucuronopyranosyl(1→2)-O-β-D-glucuronopyranoside]apigenin**

C<sub>37</sub>H<sub>34</sub>O<sub>20</sub> (798.67). Amorphous yellow powder, mp 197–198°C, [α]<sub>D</sub><sup>20</sup> = –74.2° (c = 0.1, MeOH). Source: MU XU *Medicago sativa* (aerial parts). Ref: 5167.



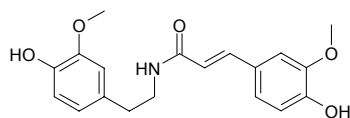
**7776 8-O-Feruloylharpagide**

C<sub>25</sub>H<sub>32</sub>O<sub>13</sub> (540.53). Amorphous powder; mp 150–152°C, [α]<sub>D</sub> = –24.20° (c = 0.231, MeOH). Source: NAN FEI GOU MA *Harpagophytum procumbens*, XUAN SHEN *Scrophularia ningpoensis*. Ref: 1855, 5458.



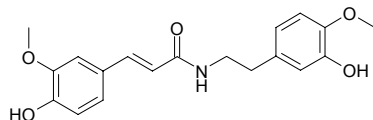
**7777 N-trans-Feruloylmethoxytyramine**

*N-trans*-Feruloyl-3-methyl-dopamine C<sub>19</sub>H<sub>21</sub>NO<sub>5</sub> (343.38). Yellowish prismatic crystals (Me<sub>2</sub>CO), mp 105–106°C. Pharm: Germination/growth inhibitor/stimulator (dicotyledon *Lactuca sativa* lettuce, *Lycopersicon esculentum* tomato, monocotyledon *Allium cepa* onion, 0.0001–0.1 mmol/L)<sup>[3499]</sup>; anti-HIV inactive (*in vitro*, acutely infected H9 lymphocyte cells)<sup>[4706]</sup>; cytotoxic inactive (*in vitro*, MCF7 and A549)<sup>[4706]</sup>. Source: BO CAI *Spinacia oleracea*, GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00055%), LI *Chenopodium album* (aerial parts), ZHU MAO CAI *Salsola collina* (aerial parts). Ref: 3499, 4706, 4846.



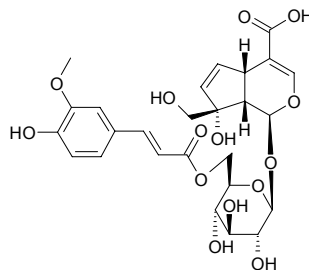
**7778 N-trans-Feruloyl-4'-O-methyl-dopamine**

C<sub>19</sub>H<sub>21</sub>NO<sub>5</sub> (343.38). Pharm: Germination/growth inhibitor/stimulator (dicotyledon *Lactuca sativa* lettuce, *Lycopersicon esculentum* tomato, monocotyledon *Allium cepa* onion, 0.0001–0.1 mmol/L). Source: LI *Chenopodium album* (root, aerial parts). Ref: 3499.



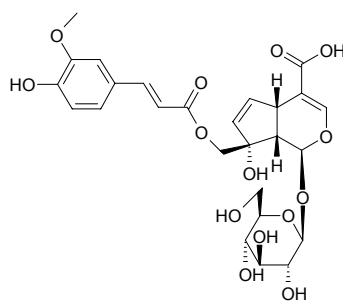
**7779 6'-O-E-Feruloylmonotropein**

C<sub>26</sub>H<sub>30</sub>O<sub>14</sub> (566.52). Crystals, mp 143–144°C (MeOH) [α]<sub>D</sub><sup>20</sup> = –30.2° (c = 0.24, MeOH). Source: JI SHI TENG *Paederia scandens*. Ref: 2561.



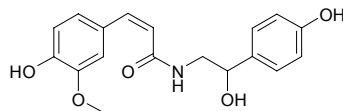
**7780 10-O-E-Feruloylmonotropein**

C<sub>26</sub>H<sub>30</sub>O<sub>14</sub> (566.52). Crystals, mp 147–148°C (MeOH), [α]<sub>D</sub><sup>20</sup> = –26.0° (c = 0.23, MeOH). Source: JI SHI TENG *Paederia scandens*. Ref: 2561.



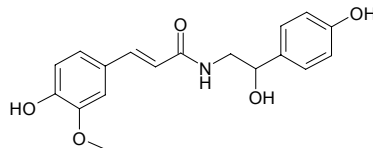
**7781 N-cis-Feruloyloctopamine**

C<sub>18</sub>H<sub>19</sub>NO<sub>5</sub> (329.36). Colorless oil. Source: MA LING SHU *Solanum tuberosum* (tuber). Ref: 5321.



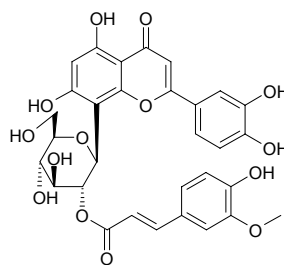
**7782 N-trans-Feruloyloctopamine**

C<sub>18</sub>H<sub>19</sub>NO<sub>5</sub> (329.36). Colorless oil. Source: MA LING SHU *Solanum tuberosum* (tuber). Ref: 5321.



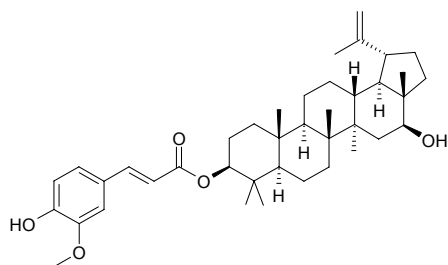
**7783 2''-O-Feruloylorientin**

C<sub>31</sub>H<sub>28</sub>O<sub>14</sub> (624.56). Yellow powder, mp 234–236°C, [α]<sub>D</sub><sup>20</sup> = –73.7° (c = 0.048, MeOH). Source: DUAN BAN JIN LIAN HUA *Trollius ledebourii* (flower). Ref: 5278.

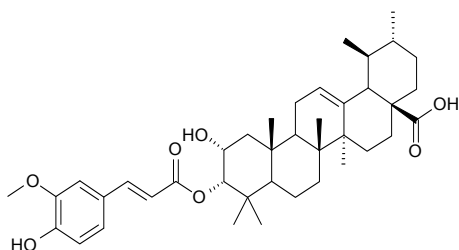


**7784 3 $\beta$ -trans-Feruloyloxy-16 $\beta$ -hydroxylup-20(29)-ene**

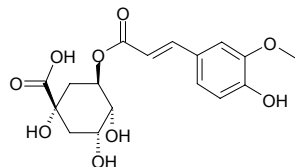
C<sub>40</sub>H<sub>58</sub>O<sub>5</sub> (618.91). White amorphous powder (CHCl<sub>3</sub>-MeOH), mp 168°C (dec) [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +18.7° (c = 0.15, MeOH). Source: FEI LV BIN PIAO SHU *Celtis philippinensis*. Ref: 2060.

**7785 3 $\alpha$ -trans-Feruloyloxy-2 $\alpha$ -hydroxyurs-12-en-28-oic acid**

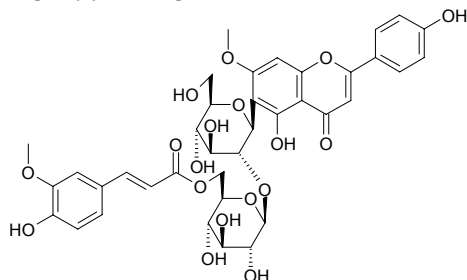
C<sub>40</sub>H<sub>56</sub>O<sub>7</sub> (648.89). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = +7.2° (c = 0.12, MeOH). Source: PI PA YE *Eriobotrya japonica* (stem and leaf). Ref: 3061.

**7786 3-O-Feruloylquinic acid**

C<sub>17</sub>H<sub>20</sub>O<sub>9</sub> (368.34). mp 196–197°C. Source: DI SHAO GUA *Cynanchum thesioides*, XIANG RI KUI YE *Helianthus annuus*. Ref: 6.

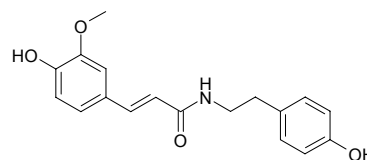
**7787 6'''-Feruloylspinosin**

C<sub>38</sub>H<sub>40</sub>O<sub>18</sub> (784.73). Source: DA ZAO *Ziziphus jujuba*, SUAN ZAO REN *Ziziphus jujuba* var. *spinosa*. Ref: 2.

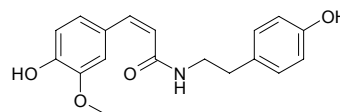
**7788 N-trans-Feruloyltyramine**

Moupinamide; (2,3)-trans-N-(p-Hydroxyphenethyl)ferulamide C<sub>18</sub>H<sub>19</sub>NO<sub>4</sub> (313.36). Colorless pillar crystals, mp 97–99°C; colorless lamellar crystals, (chloroform-acetone), mp 142–143°C, colorless needles. Pharm: Anti-HIV (H9 lymphocytic cells, inhibits replication, IC<sub>50</sub> (concentration that inhibits uninfected H9 cell growth by 50%) > 25μg/mL)<sup>[2529]</sup>; cytotoxic (hmn, A549 EC<sub>50</sub> > 20μg/mL, MCF7 EC<sub>50</sub> > 20μg/mL)<sup>[2529]</sup>; cytotoxic (BST, IC<sub>50</sub> =

6.7μg/mL, PD, InRt = 26.4%, A549, ED<sub>50</sub> = 13.35μg/mL, MCF7, ED<sub>50</sub> = 4.76μg/mL, HT29, ED<sub>50</sub> = 23.58μg/mL); cytotoxic (quinone reductase induction assay in cultured Hepal c1c7 mouse hepatoma cells, CD = 8.5μg/mL)<sup>[5038]</sup>; cytotoxic (mouse mammary organ culture assay, 75% at 10μg/mL)<sup>[5038]</sup>; cytotoxic (P<sub>388</sub>, ED<sub>50</sub> = 2.20μg/mL, control Mithramycin, ED<sub>50</sub> = 0.58μg/mL; A549, ED<sub>50</sub> = 22.42μg/mL, Mithramycin, ED<sub>50</sub> = 0.073μg/mL; HT29, ED<sub>50</sub> = 6.22μg/mL, Mithramycin, ED<sub>50</sub> = 0.076μg/mL)<sup>[5421]</sup>; cytotoxic inactive (*in vitro*, LNCaP, IC<sub>50</sub> > 100μmol/L)<sup>[4607]</sup>; antioxidant (lipid peroxidation inhibitor, brain tissue, caused by insufficient oxygen and sugar); platelet aggregation inhibitor (due to ADP); prostaglandin biosynthesis inhibitor (IC<sub>50</sub> = 210μmol/L); insect antifeedant (termites, 750mg/L, antifeedant index = 38.7); positive inotropic effect in heart (*in vitro*, increases calcium flow in frog, ventricular myocyte); immunoenhancer<sup>[2100]</sup>; germination/growth inhibitor/stimulator (dicotyledon *Lactuca sativa* lettuce, *Lycopersicon esculentum* tomato, monocotyledon *Allium cepa* onion, 0.0001–0.1mmol/L)<sup>[3499]</sup>; anti-HIV inactive (*in vitro*, acutely infected H9 lymphocyte cells)<sup>[4706]</sup>; cytotoxic inactive (*in vitro*, MCF7 and A549)<sup>[4706]</sup>. Source: BAI HUA YOU MA TENG *Mucuna birdwoodiana*, CANG BAI CHENG GOU FENG *Diploclisia glaucescens*, CI JI LI *Tribulus terrestris*, CI TIAN QIE *Solanum khasianum*, FAN LI ZHI *Annona squamosa*, GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00076%), HE SHOU WU *Polygonum multiflorum*, HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.0016%dw)<sup>[4779]</sup>, HUAI TONG *Aristolochia moupinensis*, HUANG HUA REN *Sida acuta*, HUO MA REN *Cannabis sativa*, LANG DANG ZI *Hyoscyamus niger* (seed: yield = 0.0006%dw)<sup>[4607]</sup>, LI *Chenopodium album* (aerial parts), MA LING SHU *Solanum tuberosum* (tuber), MAI DONG *Ophiopogon japonicus* (tuber)<sup>[4663]</sup>, TAI WAN FU RONG *Hibiscus taiwanensis*, TIAN QIE ZI *Solanum indicum* (root)<sup>[3087]</sup>, MO ZHI JIAO GU CUI *Casearia membranacea* (stem), *Hyecoum* sp., occurs in many plants. Ref: 715, 900, 1316, 2100, 2529, 3087, 3499, 4607, 4663, 4706, 4779, 5038, 5321, 5421.

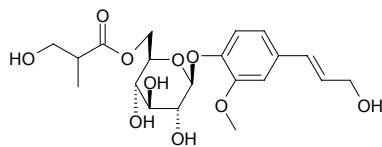
**7789 N-cis-Feruloyltyramine**

C<sub>18</sub>H<sub>19</sub>NO<sub>4</sub> (313.36). Pharm: Cytotoxic (P<sub>388</sub>, ED<sub>50</sub> = 2.71μg/mL, control Mithramycin, ED<sub>50</sub> = 0.58μg/mL; A549, ED<sub>50</sub> = 35.94μg/mL, Mithramycin, ED<sub>50</sub> = 0.073μg/mL; HT29, ED<sub>50</sub> = 18.41μg/mL, Mithramycin, ED<sub>50</sub> = 0.076μg/mL)<sup>[5421]</sup>. Source: HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00048%dw), MA LING SHU *Solanum tuberosum* (tuber), TAI WAN FU RONG *Hibiscus taiwanensis*, MO ZHI JIAO GU CUI *Casearia membranacea* (stem). Ref: 2529, 4779, 5321, 5421.



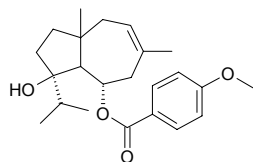
**7790 *trans-p*-Ferulylalcohol-4-*O*-[6-(2-methyl-3-hydroxypropionyl)]glucopyranoside**

$C_{20}H_{28}O_{10}$  (428.44). Source: HONG HAI JIAO *Capsicum annuum*. Ref: 3419.



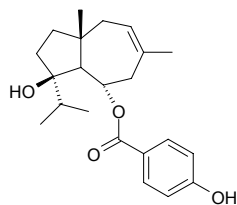
**7791 Ferutidin**

Jaeschkeanadiol *p*-methoxybenzoate  $C_{23}H_{32}O_4$  (372.51). Source: YI LANG A WEI *Ferula kuhistanica* (stem). Ref: 3977.



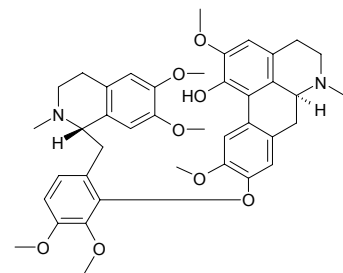
**7792 Ferutin**

Jaeschkeanadiol *p*-hydroxybenzoate  $C_{22}H_{30}O_4$  (358.48). Pharm: Antibacterial (MSSA, MIC = 8 μg/mL, control Ampicillin, MIC = 1 μg/mL; MRSA, MIC = 16 μg/mL, Ampicillin, MIC = 2 μg/mL; *Staphylococcus epidermidis* IFO 3762, MIC = 16 μg/mL, Ampicillin, MIC < 0.125 μg/mL; *Enterococcus faecalis* ATCC 21212, MIC = 31 μg/mL, Ampicillin, MIC = 1 μg/mL; *Bacillus subtilis* IFO 3134, MIC = 16 μg/mL, Ampicillin, MIC < 0.125 μg/mL; *Salmonella typhimurium* IFO 13245, MIC > 250 μg/mL, Ampicillin, MIC = 1 μg/mL; *Proteus mirabilis* IFO 3849, MIC > 250 μg/mL, Ampicillin, MIC = 2 μg/mL; *Escherichia coli* NIHJ JC-2, MIC > 250 μg/mL, Ampicillin, MIC = 4 μg/mL)<sup>[5207]</sup>. Source: YI LANG A WEI *Ferula kuhistanica* (root), YI LANG A WEI *Ferula kuhistanica* (fruit). Ref: 3977, 5207.



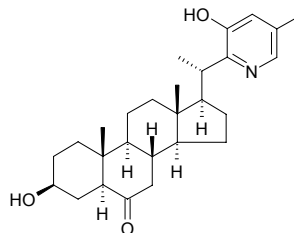
**7793 Fetidine**

[7072-86-8]  $C_{40}H_{46}N_2O_8$  (682.82). mp (+) 132~135°C. Pharm: Anti-inflammatory; inhibits neuroaction; antihypertensive. Source: XIANG TANG SONG CAO *Thalictrum foetidum*. Ref: 6, 658, 660.



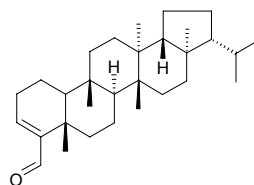
**7794 Fetisinine**

(3*R*,20*S*)-3-Hydroxyl-20-(5'-hydroxy-3'-methylpyridin-6'-yl)-5α-pregnan-6-one  $C_{27}H_{39}NO_3$  (425.62). Amorphous colorless powder,  $[\alpha]_D^{25} = -118^\circ$  ( $c = 0.10$ , MeOH). Source: XI BEI MU *Fritillaria imperialis*. Ref: 3372.



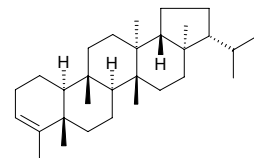
**7795 Filicenal**

[13843-88-4]  $C_{30}H_{48}O$  (424.72). mp 272°C. Source: TIE SI QI *Adiantum pedatum*. Ref: 6.



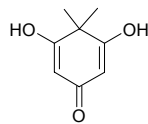
**7796 Filicene**

[2472-29-9]  $C_{30}H_{50}$  (410.73). mp 228.5~229.5°C. Source: GUAN ZHONG *Dryopteris crassirhizoma*, TIE SI QI *Adiantum pedatum*. Ref: 6.



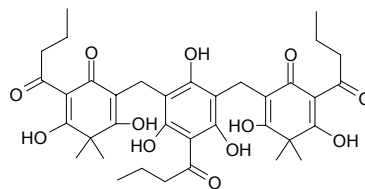
**7797 Filicinic acid**

[2065-00-1]  $C_8H_{10}O_3$  (154.17). mp 215°C (dec). Source: GUAN ZHONG *Dryopteris crassirhizoma*. Ref: 6.



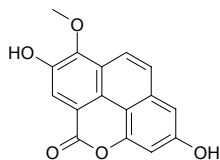
**7798 Filixic acid BBB**

[4482-83-1]  $C_{36}H_{44}O_{12}$  (668.74). Pharm: Anthelmintic. Source: MIAN MA *Dryopteris filix-mas*. Ref: 658.

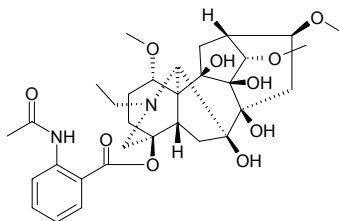


**7799 Fimbriatone**

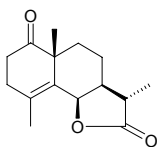
$C_{16}H_{10}O_5$  (282.26). Yellowish powder, mp 272~273°C. Source: LIU SU JIN SHI HU *Dendrobium fimbriatum*. Ref: 2469.

**7800 Finaconitine**

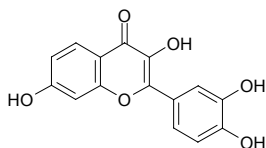
[81161-27-5]  $C_{32}H_{44}N_2O_{10}$  (616.71). Crystals (ethanol), mp 220~221°C,  $[\alpha]_D^{22} = +44.7^\circ$  ( $c = 1$ , methanol). Pharm: Analgesic. Source: GAN WAN WU TOU *Aconitum finetianum*. Ref: 658.

**7801 Finitin**

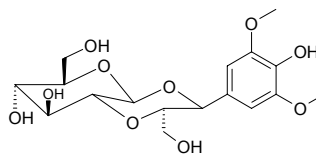
[54192-33-5]  $C_{15}H_{20}O_3$  (248.32). mp 153~155°C. Source: DONG BEI HUI HAO *Seriphidium finitum* [Syn. *Artemisia finita*]. Ref: 6.

**7802 Fisetin**

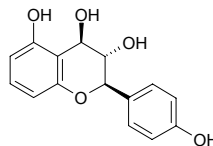
3,7,3',4'-Tetrahydroxyflavone [528-48-3]  $C_{15}H_{10}O_6$  (286.24). Yellow acicular crystals (dilute ethanol), mp 330°C (dec), mp 348°C, mp 350°C; yellow thin acicular, mp > 300°C. Pharm: Antibacterial; antispasmodic (mus small intestine, caused by acetylcholine, smooth muscle relaxant); inhibits metabolism and release of arachidonic acid; antihistamine (inhibits histamine release, basophilic granulocyte); prostaglandin biosynthesis inhibitor;  $\Delta^5$ -lipoxygenase inhibitor; NADH oxidase inhibitor; iodine-induced thyronine deiodinase inhibitor; aldose reductase inhibitor (rat eye lens,  $ID_{50} = 1 \mu\text{mol/L}$ ); protein kinase C inhibitor; succinic oxidase inhibitor; regulates allergic reaction. Source: HAI ER CHA *Acacia catechu*, HUANG LIAN YA *Pistacia chinensis*, LIAO SHANG RONG MAO HUA *Anthyllis vulneraria*, LIN BEI ZI *Toxicodendron succedaneum* [Syn. *Rhus succedanea*], MANG GUO *Mangifera indica*, YE QI SHU YE *Rhus sylvestris*. Ref: 6, 661.

**7803 Fissistigmoside**

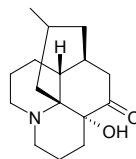
$C_{17}H_{24}O_{10}$  (388.37). White crystals, mp 188~190°C. Source: HEI FENG TENG *Fissistigma polyanthum*. Ref: 669.

**7804 Fistacacidin**

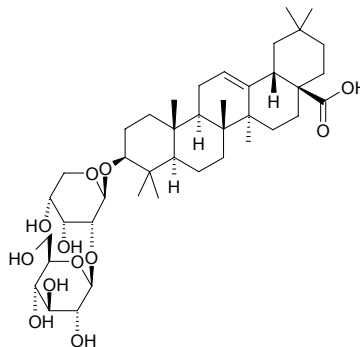
[25375-34-2]  $C_{15}H_{14}O_5$  (274.28). mp 245~247°C. Source: PO LUO MEN ZAO JIA *Cassia fistula*. Ref: 6.

**7805 Flabelliformine**

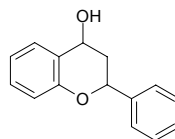
$C_{16}H_{25}NO_2$  (263.38).  $[\alpha]_D^{25} = -78^\circ$  (MeOH). Source: DONG BEI SHI SHAN *Huperzia miyoshiana*. Ref: 5412.

**7806 Flaccidin B**

$C_{41}H_{66}O_{12}$  (750.98). Pharm: Reverse transcriptase inhibitor of RNA tumor virus. Source: E ZHANG CAO *Anemone flaccida*. Ref: 4060.

**7807 Flavanol**

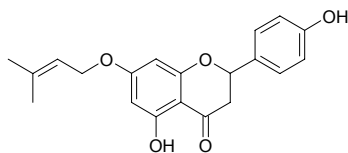
Flavan-4-ol  $C_{15}H_{14}O_2$  (226.28). mp 119°C. Source: LUO TUO CI *Alhagi pseudalhagi*, CHA SHU GEN *Camellia sinensis* [Syn. *Thea sinensis*]. Ref: 6.



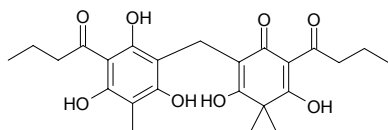


**7808 Flavanone 4',5-dihydroxy-7-prenyloxyflavanone**

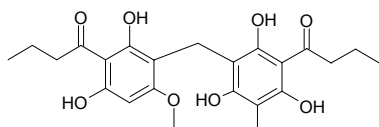
$C_{20}H_{20}O_5$  (340.38). Fine needles, mp 69–70°C. Source: GAO GUI YOU MU YUN XIANG *Teclea nobilis* (aerial parts). Ref: 3503.

**7809 Flavaspidic acid BB**

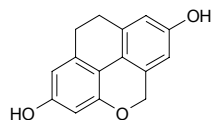
[114-42-1]  $C_{24}H_{30}O_8$  (446.50). mp ( $\alpha$ ) 92°C; 150°C, ( $\beta$ ) 156°C. Pharm: Antibacterial; antifungal; anthelmintic. Source: GAO JIA SUO LIN MAO JUE *Dryopteris caucasica*, GUAN ZHONG *Dryopteris crassirhizoma*, HUANG MAO LIN MAO JUE *Dryopteris chrysocoma*, MIAN MA *Dryopteris filix-mas*. Ref: 6, 658.

**7810 Flavaspidin**

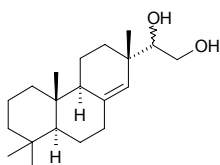
[1763-14-0]  $C_{23}H_{28}O_8$  (432.47). mp 211–212°C. Source: GUAN ZHONG *Dryopteris crassirhizoma*. Ref: 6.

**7811 Flavidin**

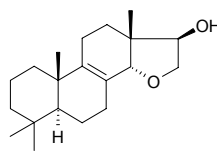
[83924-98-5]  $C_{15}H_{12}O_3$  (240.26). Pharm: Antispasmodic. Source: BEI MU LAN *Coelogyne ovalis*, JIE JING SHI XIAN TAO *Pholidota articulata*. Ref: 658.

**7812 Flavidusin A**

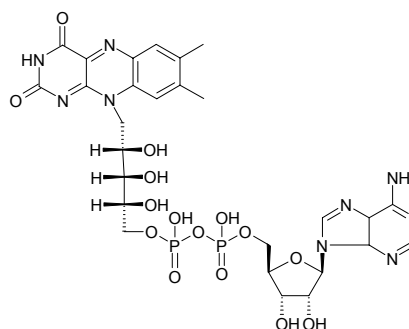
$C_{20}H_{34}O_2$  (306.49). mp 85–86°C,  $[\alpha]_D^{22} = +31.82^\circ$  ( $c = 0.55$ ,  $CHCl_3$ ). Source: DAN HUANG XIANG CHA CAI *Isodon flavidus*. Ref: 4067.

**7813 Flavidusin B**

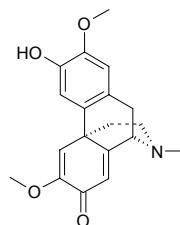
$C_{20}H_{32}O_2$  (304.48). mp 79–80°C,  $[\alpha]_D^{22} = +109.0^\circ$  ( $c = 0.65$ ,  $CHCl_3$ ). Source: DAN HUANG XIANG CHA CAI *Isodon flavidus*. Ref: 4067.

**7814 Flavinadenine dinucleotide**

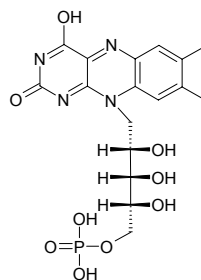
[146-14-5]  $C_{27}H_{35}N_9O_{15}P_2$  (787.58). Source: QING WA *Rana nigromaculata*; *Rana plancyi*, YUAN CAN ZI *Bombyx mori*. Ref: 6.

**7815 (+)-Flaviantine**

$C_{19}H_{21}NO_4$  (327.38). Pharm: Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 9.3 μg/mL; Hep2,2,15, IC<sub>50</sub> = 9.7 μg/mL)<sup>[3083]</sup>. Source: YOU GOU YING ZHAO *Artabotrys uncinatus* (root and stem). Ref: 3083.

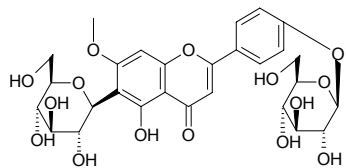
**7816 Flavin mononucleotide**

[146-17-8]  $C_{17}H_{21}N_4O_9P$  (456.35). Source: YUAN CAN ZI *Bombyx mori*, ZHANG LANG *Blatta orientalis*. Ref: 6.

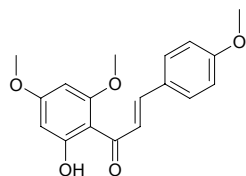


**7817 Flavocommelin**

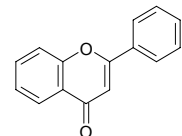
[16049-42-6] C<sub>28</sub>H<sub>32</sub>O<sub>15</sub> (608.56). mp 216~217°C. Source: YA ZHI CAO  
*Commelina communis*. Ref: 6.

**7818 Flavokawain A**

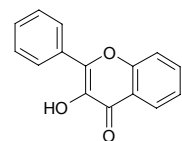
2'-Hydroxy-4,4',6'-trimethoxychalcone C<sub>18</sub>H<sub>18</sub>O<sub>5</sub> (314.34). Yellow plates  
(*n*-hexane-EtOAc), mp 112°C, mp 114~115°C. Source: CHANG YE GE NA  
XIANG *Goniothalamus gardneri* (aerial parts). Ref: 5096.

**7819 Flavone**

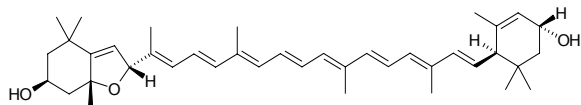
2-Phenylchromone [525-82-6] C<sub>15</sub>H<sub>10</sub>O<sub>2</sub> (222.25). mp 97°C. Pharm: Platelet  
aggregation inhibitor (hmn); inhibits release of histamine from basophiles;  
5-lipoxygenase inhibitor; cyclooxygenase inhibitor. Source: YIN FEN BAO  
CHUN *Primula pulverulenta*, WU LOU ZI *Phoenix dactylifera*. Ref: 6, 658.

**7820 Flavonol**

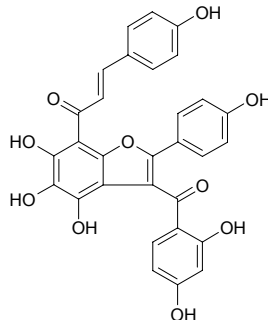
[577-85-5] C<sub>15</sub>H<sub>10</sub>O<sub>3</sub> (238.25). mp 169~170°C. Source: BAI GUO YE *Ginkgo*  
*biloba*, BAI QU CAI *Chelidonium majus*, CHA SHU GEN *Camellia sinensis*  
[Syn. *Thea sinensis*]. Ref: 6.

**7821 Flavoxanthin**

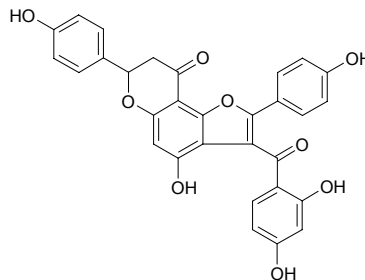
5,8-Epoxy-5,8-dihydro- $\beta$ -*epsilon*-carotene-3,3'-diol [512-29-8] C<sub>40</sub>H<sub>56</sub>O<sub>3</sub>  
(584.89). mp 184°C. Pharm: Yellow pigment. Source: CAO DI MAO GEN  
*Ranunculus acris*, DA BAI DING CAO *Senecio oryzetorum*, JIN ZHAN JU  
*Calendula officinalis*, OU ZHOU QIAN LI GUANG *Senecio vulgaris*, QIAN  
LI GUANG *Senecio scandens* [Syn. *Senecio chinensis*], WAN SHOU JU  
*Tagetes erecta*, XI YANG JIE GU MU *Sambucus nigra*, XING REN *Prunus*  
*armeniaca*, YANG LI *Prunus domestica*, YAO YONG PU GONG YING  
*Taraxacum officinale*, YE MU XU *Medicago falcata* (whole herb: content  
scope = 7%~8%), YIN BAI JIN HE HUAN *Acacia dealbata*, *Berberis* sp.,  
*Chrysanthemum* sp., *Narcissus* sp., *Rosa* sp., *Tulipa* sp. Ref: 6, 658, 660.

**7822 Flavumone A**

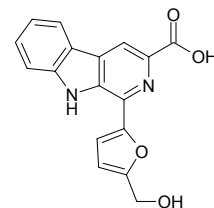
1-[3-(2,4-Dihydroxy-benzoyl)-4,5,6-trihydroxy-2-(4-hydroxy-phenyl)-benzofuran-7-yl]-3-(4-hydroxy-phenyl)-propenone C<sub>30</sub>H<sub>20</sub>O<sub>10</sub> (540.49). Yellow  
crystals, mp 240~241°C (Me<sub>2</sub>CO). Source: HUANG SAI JIN LIAN MU  
*Ouratea flava* (stem cortex). Ref: 3384.

**7823 Flavumone B**

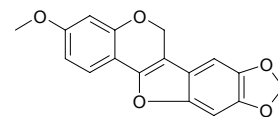
3-(2,4-Dihydroxy-benzoyl)-4-hydroxy-2,7-bis-(4-hydroxy-phenyl)-7,8-dihydro-  
o-furo[2,3-f]chromen-9-on C<sub>30</sub>H<sub>20</sub>O<sub>9</sub> (524.49). Amorphous yellow solid.  
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +29° (c = 0.5, MeOH). Source: HUANG SAI JIN LIAN MU *Ouratea*  
*flava* (stem cortex). Ref: 3384.

**7824 Flazin**

C<sub>17</sub>H<sub>12</sub>N<sub>2</sub>O<sub>4</sub> (308.30). Pharm: Cytotoxic (mouse mammary organ culture  
assay, 75% at 4 $\mu$ g/mL)<sup>[5038]</sup>. Source: YA DAN ZI *Brucea javanica* [Syn.  
*Brucea sumatrana*; *Rhus javanica*]. Ref: 5038.

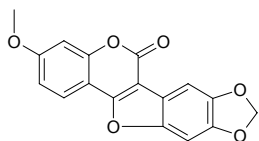
**7825 Flemichapparin B**

C<sub>17</sub>H<sub>12</sub>O<sub>5</sub> (296.28). Pharm: Antioxidant (DPPH scavenger, ScRt = 5.26%,  
control BHT, ScRt = 71.5%)<sup>[3810]</sup>; antibacterial (*Staphylococcus aureus* ATCC  
25923, MIC > 512 $\mu$ g/mL, control Vancomycin, MIC = 0.5 $\mu$ g/mL; MRSA  
SK1, MIC > 512 $\mu$ g/mL, Vancomycin, MIC = 1.0 $\mu$ g/mL)<sup>[3810]</sup>; increases blood  
pressure (anesthetized rats, increases in mean arterial blood pressure,  
0.4mg/kg, 8.9mmHg)<sup>[3810]</sup>. Source: PAN YUAN YU TENG *Derris scandens*  
(stem). Ref: 3810.

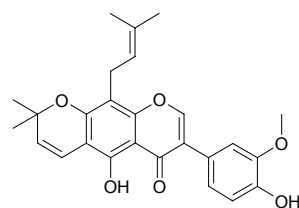


**7826 Flemichapparin C**

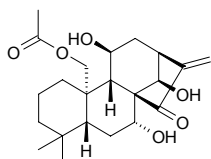
$C_{17}H_{10}O_6$  (310.27). **Pharm:** Antioxidant (DPPH scavenger, ScRt = 21.05%, control BHT, ScRt = 71.5%). **Source:** PAN YUAN YU TENG *Derris scandens* (stem). **Ref:** 3810.

**7827 Flemiphilippinin C**

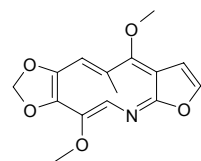
[133830-92-9]  $C_{26}H_{26}O_6$  (434.49). Yellowish acicular crystals (methanol–water), mp 143–145°C. **Source:** MAN XING QIAN JIN BA *Flemingia philippinensis* [Syn. *Moghania philippinensis*]. **Ref:** 179.

**7828 Flexicaulin A**

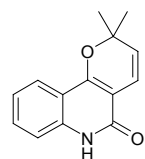
$C_{22}H_{32}O_6$  (392.50). mp 224–226.5°C,  $[\alpha]_D^{21} = -99.43^\circ$  ( $c = 0.52$ , MeOH). **Source:** ROU JING XIANG CHA CAI *Isodon flexicaulis*. **Ref:** 4067.

**7829 Flindersiamine**

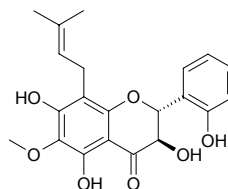
$C_{15}H_{15}NO_5$  (289.29). **Pharm:** Antibacterial (*Staphylococcus aureus* and *Streptococcus faecalis*, moderate). **Source:** Esenbeckia yaaxhokob (leaf). **Ref:** 4929.

**7830 Flindersine**

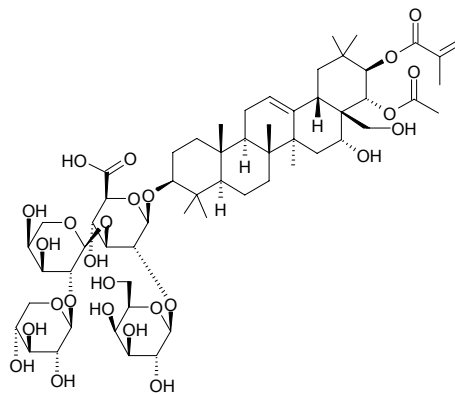
$C_{14}H_{13}NO_2$  (227.27). **Pharm:** Photo-activated antibacterial (*Staphylococcus aureus*)<sup>[4989]</sup>; photo-activated antifungal (*Candida albicans* weak)<sup>[4989]</sup>; photo-activated DNA binding inactive (16 restriction enzymes)<sup>[4989]</sup>. **Source:** JIAN YE YUN XIANG CAO *Haplophyllum acutifolium*, *Sarcomelicope glauca*. **Ref:** 4989, 5175.

**7831 Floranol**

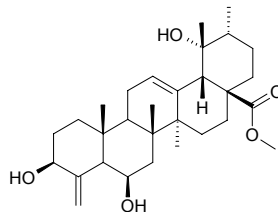
$C_{21}H_{22}O_7$  (386.41). **Source:** DA HUA DI AO DOU *Dioclea grandiflora* (root). **Ref:** 4978.

**7832 Floratheasaponin A**

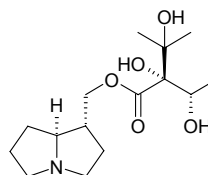
$C_{59}H_{92}O_{26}$  (1217.38). **Pharm:** Antihyperlipidemic<sup>[4537]</sup>. **Source:** PU ER CHA *Camellia sinensis* var. *assamica* (flower). **Ref:** 4537.

**7833 Floridic acid methyl ester**

$C_{30}H_{46}O_5$  (486.70). **Pharm:** Anti-inflammatory<sup>[5341]</sup>; antiviral. **Source:** MIAN MAO GOU TENG *Uncaria lanosa*. **Ref:** 5341.

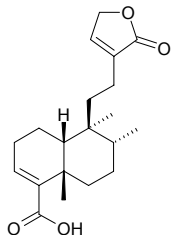
**7834 Floridinine**

[200067-94-3]  $C_{15}H_{27}NO_5$  (301.39). Oil,  $[\alpha]_D = -8.3^\circ$  ( $c = 0.096$ , ethanol). **Pharm:** Antifungal (*Fusarium moniliforme*). **Source:** *Heliotropium floridum* var. *latifolium*. **Ref:** 1554.

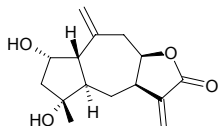


**7835 Floridiolide A**

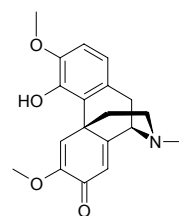
Limbatolide C C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). Gummy solid,  $[\alpha]_D^{23} = -98.231^\circ$  ( $c = 0.063$ , CHCl<sub>3</sub>). **Pharm:** AChE inhibitor (*in vitro*, IC<sub>50</sub> = (103.7±0.5)μmol/L, positive control Galanthamine, IC<sub>50</sub> = (0.5±0.01)μmol/L)<sup>[4453]</sup>; BChE inhibitor (*in vitro*, IC<sub>50</sub> = (14.2±0.3)μmol/L, positive control Galanthamine, IC<sub>50</sub> = (8.5±0.1)μmol/L)<sup>[4453]</sup>. **Source:** GE LUN BI YA BA DOU *Croton schiedeanus* (aerial parts), YOU YAN AO TUO SI TE CAO *Otostegia limbata* (root). **Ref:** 4447, 4453.

**7836 Florilenalin**

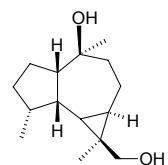
2,4-Dihydroxy-10(14),11(13)-guaiaadien-12,8-olide [54964-49-7] C<sub>15</sub>H<sub>20</sub>O<sub>4</sub> (264.32). Oil. **Pharm:** Cytotoxic (hmn H.Ep.-2 cutis cancer in throat, 1μg/mL). **Source:** DUI XIN JU *Helenium autumnale*. **Ref:** 661.

**7837 Floripavine**

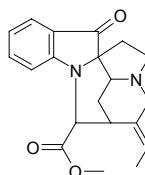
(+)-Salutaridine [1936-18-1] C<sub>19</sub>H<sub>21</sub>NO<sub>4</sub> (327.38). mp 197~198°C. **Pharm:** Antineoplastic (W<sub>256</sub>). **Source:** YA PIAN *Papaver somniferum*, DA HONG YING SU *Papaver bracteatum*, JIN DONG YING SU *Papaver orientale*, XIANG BA DOU *Croton balsamifera*, YI KANG BA DOU *Croton salutaris*, YING SU *Papaver somniferum*. **Ref:** 6, 658.

**7838 Flourensadiol**

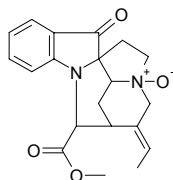
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). **Pharm:** Phytotoxin (inhibits radicle growth, *Amaranthus hypochondriacus*, IC<sub>50</sub> = 412μmol/L, control 2,4-D, IC<sub>50</sub> = 180μmol/L; *Echinochloa crusgalli*, IC<sub>50</sub> = 4200μmol/L, control 2,4-D, IC<sub>50</sub> = 230μmol/L); CaM interactor (cAMP phosphodiesterase inhibitor, IC<sub>50</sub> = 5.2μmol/L, control Chlorpromazine, IC<sub>50</sub> = 10.2μmol/L, interacted with bovine-brain calmodulin and inhibited the activation of the calmodulin-dependent enzyme cAMP phosphodiesterase). **Source:** FU CHUI FE LAO JU *Flourensia cernua*. **Ref:** 3433.

**7839 Fluorocarpamine**

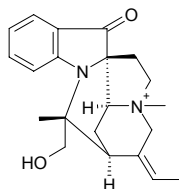
[2254-31-1] C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub> (338.41). **Source:** CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochnera rosea*]. **Ref:** 2.

**7840 Fluorocarpamine-N-oxide**

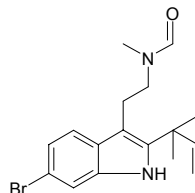
[88746-90-1] C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O<sub>4</sub> (354.41). **Source:** CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochnera rosea*]. **Ref:** 2.

**7841 Fluorocurine**

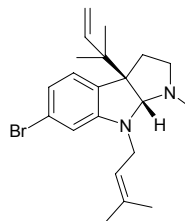
C<sub>21</sub>H<sub>27</sub>N<sub>2</sub>O<sub>2</sub> (339.46). **Source:** *Strychnos guianensis* (stem cortex). **Ref:** 3943.

**7842 Flustrabromine**

C<sub>17</sub>H<sub>21</sub>BrN<sub>2</sub>O (349.27). **Pharm:** Affinity to nAChR ( $\alpha 4\beta 2$  subtype,  $K_i > 50000$ nmol/L, control (-)-Nicotine,  $K_i = (0.838 \pm 0.132)$ nmol/L;  $\alpha 7$  subtype,  $K_i > 50000$ nmol/L, (-)-Nicotine,  $K_i = (127 \pm 5)$ nmol/L)<sup>[5029]</sup>. **Source:** BEI HAI XIAN TAI CHONG *Flustra foliacea* **Ref:** 5029.

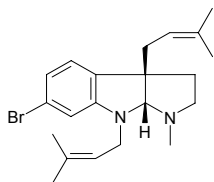
**7843 Flustramine A**

C<sub>21</sub>H<sub>29</sub>BrN<sub>2</sub> (389.38). **Pharm:** Affinity to nAChR ( $\alpha 4\beta 2$  subtype,  $K_i > 50000$ nmol/L, control (-)-Nicotine,  $K_i = (0.838 \pm 0.132)$ nmol/L;  $\alpha 7$  subtype,  $K_i > 50000$ nmol/L, (-)-Nicotine,  $K_i = (127 \pm 5)$ nmol/L)<sup>[5029]</sup>. **Source:** BEI HAI XIAN TAI CHONG *Flustra foliacea*. **Ref:** 5029.

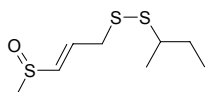


**7844 Flustramine B**

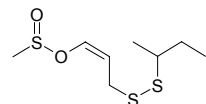
[71239-65-1] C<sub>21</sub>H<sub>29</sub>BrN<sub>2</sub> (389.38). Source: BEI HAI XIAN TAI CHONG *Flustra foliacea*. Ref: 1521.

**7845 Foetisulfide A**

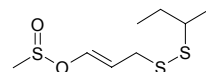
*E*-3-Methylsulfinyl-2-propenyl *sec*-butyl disulfide C<sub>8</sub>H<sub>16</sub>OS<sub>2</sub> (224.41). Pale yellow oil, [α]<sub>D</sub><sup>25</sup> = -36.7° (*c* = 1.1, MeOH). Source: CHOU A WEI *Ferula foetida* (root: yield = 0.0029%). Ref: 4659.

**7846 Foetisulfide B**

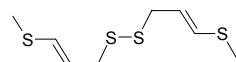
*Z*-3-Methylsulfinyloxy-2-propenyl *sec*-butyl disulfide C<sub>8</sub>H<sub>16</sub>O<sub>2</sub>S<sub>2</sub> (240.41). Pale yellow oil, [α]<sub>D</sub><sup>25</sup> = +8.8° (*c* = 0.9, MeOH). Source: CHOU A WEI *Ferula foetida* (root: yield = 0.00051%). Ref: 4659.

**7847 Foetisulfide C**

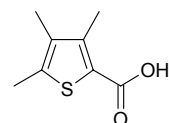
*E*-3-Methylsulfinyloxy-2-propenyl *sec*-butyl disulfide C<sub>8</sub>H<sub>16</sub>O<sub>2</sub>S<sub>2</sub> (240.41). Pale yellow oil, [α]<sub>D</sub><sup>25</sup> = +27.5° (*c* = 1.2, MeOH). Source: CHOU A WEI *Ferula foetida* (root: yield = 0.00077%). Ref: 4659.

**7848 Foetisulfide D**

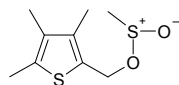
Bis(3-methylthio-2*E*-propenyl) disulfide C<sub>8</sub>H<sub>14</sub>S<sub>4</sub> (238.46). Colorless oil. Source: CHOU A WEI *Ferula foetida* (root: yield = 0.00026%). Ref: 4659.

**7849 Foetithiophene A**

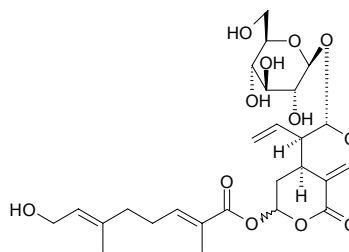
3,4,5-Trimethyl-2-thiophenecarboxylic acid C<sub>8</sub>H<sub>10</sub>O<sub>2</sub>S (170.23). Colorless needles, mp 166.0~166.5°C. Source: CHOU A WEI *Ferula foetida* (root: yield = 0.00051%). Ref: 4659.

**7850 Foetithiophene B**

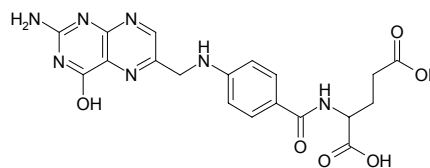
3,4,5-Trimethyl-2-(methylsulfinyloxymethyl) thiophene C<sub>9</sub>H<sub>14</sub>O<sub>2</sub>S<sub>2</sub> (218.34). Pale yellow oil. Source: CHOU A WEI *Ferula foetida* (root: yield = 0.00051%). Ref: 4659.

**7851 Foliamenthin**

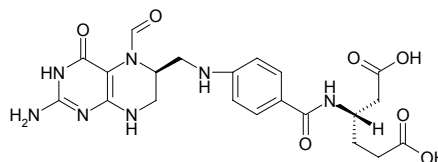
[21848-66-8] C<sub>26</sub>H<sub>36</sub>O<sub>12</sub> (540.57). mp 194~196°C. Source: SHUI CAI *Menyanthes trifoliata* (the compound was isolated from the plant by Battersby et al. in 1968)<sup>[5505]</sup>, SHUI CAI GEN *Menyanthes trifoliata*. Ref: 6, 5505.

**7852 Folic acid**

Pteroylglutamic acid; Cytofol; Folipac [59-30-3] C<sub>19</sub>H<sub>19</sub>N<sub>7</sub>O<sub>6</sub> (441.41). mp 250°C (dec), [α]<sub>D</sub><sup>25</sup> = +23° (*c* = 0.5, 0.1 mol NaOH).<sup>[5507]</sup> Pharm: Hematopoietic vitamin (used in treatment of megaloblastic anemia due to lack of folic acid). Source: BEI HAI DANG GUI *Angelica acutiloba* var. *sugiyamae*, BO CAI *Spinacia oleracea*, CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*], CU LIU GUO *Hippophae rhamnoides*, DONG DANG GUI *Angelica acutiloba* [Syn. *Ligusticum acutilobum*], HONG CHE ZHOU CAO *Trifolium pratense*, HUANG QI *Astragalus membranaceus*, LI ZHI *Litchi chinensis*, LIN QIN *Malus asiatica*, MANG GUO *Mangifera indica*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SANG YE *Morus alba*, YANG SHI GUO *Syzygium cumini*. Ref: 2, 658, 660, 5507.

**7853 Folinic acid**

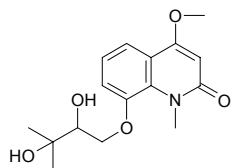
[58-05-9] C<sub>21</sub>H<sub>25</sub>N<sub>7</sub>O<sub>7</sub> (487.48). mp 248~250°C. Source: BA JIAO HUI XIANG *Illicium verum*, BO CAI *Spinacia oleracea*, CAN DOU YE *Vicia faba*, CU LIU GUO *Hippophae rhamnoides*, DANG GUI *Angelica sinensis*, FENG MI *Apis cerana*, FENG RU *Apis cerana*, HEI DA DOU *Glycine max*, HEI DA DOU YE *Glycine max*, HEI ZHI MA *Sesamum indicum* (black seed) [Syn. *Sesamum orientale* (black seed)], HONG CHE ZHOU CAO *Trifolium pratense*, HONG CHE ZHOU CAO *Trifolium pratense*, HUANG QI *Astragalus membranaceus*, LI ZHI *Litchi chinensis*, MANG GUO *Mangifera indica*, MO GU *Agaricus campestris*, NIU RU *Bos taurus domesticus*; *Bubalus bubalis*, SANG YE *Morus alba*, YAO YONG PU GONG YING *Taraxacum officinale*. Ref: 6, 660.



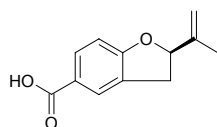
**7854 Foliosidine**

[2520-38-9] C<sub>16</sub>H<sub>21</sub>NO<sub>5</sub> (307.35). mp 141~142°C, [α]<sub>D</sub><sup>20</sup> = +42° (ethanol).

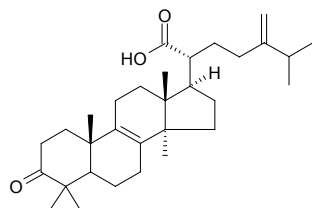
**Pharm:** Antiarrhythmic (cat, caused by CaCl<sub>2</sub> or adrenaline, 20~30mg/kg iv, the action maintains 20~60min); LD<sub>50</sub> (mus, iv) = 209mg/kg. **Source:** DA YE YUN XIANG CAO *Haplophyllum perforatum*. **Ref:** 658.

**7855 Fomannoxin acid**

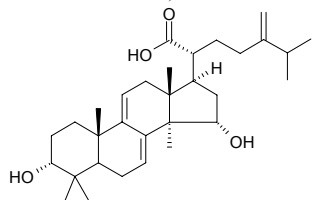
2-Isopropenyl-2,3-dihydrobenzofuran-5-carboxylic acid [84015-64-5] C<sub>12</sub>H<sub>12</sub>O<sub>3</sub> (204.23). **Source:** BAI HUA LONG DAN *Gentiana algida*. **Ref:** 704.

**7856 Fomefficinic acid A**

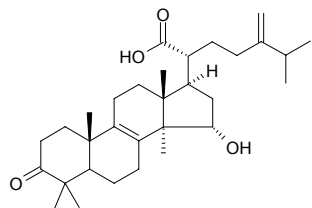
24-Methylene-3-oxo-lanost-8-en-21-oic acid C<sub>31</sub>H<sub>48</sub>O<sub>3</sub> (468.73). White needles, mp 201~203°C, [α]<sub>D</sub><sup>20</sup> = +4.6° (c = 0.06, CHCl<sub>3</sub>:MeOH = 1:1). **Source:** A LI HONG *Fomes officinalis*. **Ref:** 2566.

**7857 Fomefficinic acid B**

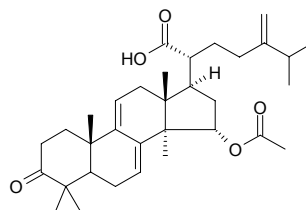
3α,15α-Dihydroxy-24-methylene-lanosta-7,9(11)-dien-21-oic acid C<sub>31</sub>H<sub>48</sub>O<sub>4</sub> (484.73). White amorphous powder, mp 194~196°C, [α]<sub>D</sub><sup>20</sup> = +25.8° (c = 0.05, CHCl<sub>3</sub>:MeOH = 1:1). **Source:** A LI HONG *Fomes officinalis*. **Ref:** 2566.

**7858 Fomefficinic acid D**

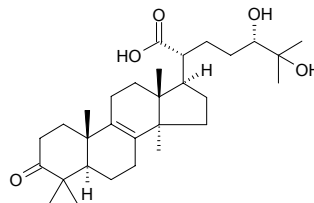
15α-Hydroxy-3-oxo-24-methylenelanost-8-en-21-oic acid C<sub>31</sub>H<sub>48</sub>O<sub>4</sub> (484.73). White amorphous powder, mp 205~207°C, [α]<sub>D</sub><sup>20</sup> = +37.5° (c = 0.04, CHCl<sub>3</sub>:MeOH = 1:1). **Source:** A LI HONG *Fomes officinalis*. **Ref:** 2566.

**7859 Fomefficinic acid E**

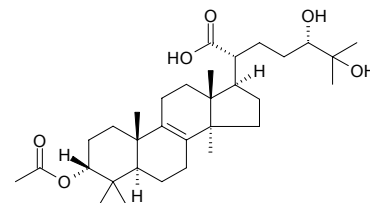
15α-Acetoxy-3-oxo-24-methylenelanosta-7,9(11)-dien-21-oic acid C<sub>33</sub>H<sub>48</sub>O<sub>5</sub> (524.75). White amorphous powder, mp 207~209°C, [α]<sub>D</sub><sup>20</sup> = +46.7° (c = 0.03, CHCl<sub>3</sub>:MeOH = 1:1). **Source:** A LI HONG *Fomes officinalis*. **Ref:** 2566.

**7860 Fomitopic acid A**

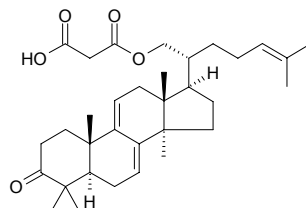
24S,25-Dihydroxy-3-oxolanost-8-en-21-oic acid C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). Colorless needles (CHCl<sub>3</sub>), mp 182~184°C, [α]<sub>D</sub><sup>25</sup> = +33.8° (c = 1.1, MeOH). **Pharm:** Anti-inflammatory (*in vitro*, COX-1 inhibitor, 10μg/mL, InRt = 18.1%, COX-2 inhibitor, IC<sub>50</sub> = 1.15μmol/L; control Indomethacin, COX-1 inhibitor, IC<sub>50</sub> = 0.10μmol/L; COX-2 inhibitor, IC<sub>50</sub> = 0.60μmol/L). **Source:** HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.0036%fw). **Ref:** 4798.

**7861 Fomitopic acid B**

24,25-Dihydroxy-3α-acetoxy-lanost-8-en-21-oic acid C<sub>32</sub>H<sub>52</sub>O<sub>6</sub> (532.77). Amorphous powder, [α]<sub>D</sub><sup>25</sup> = +16.7° (c = 0.3, MeOH). **Source:** HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.00058%fw). **Ref:** 4798.

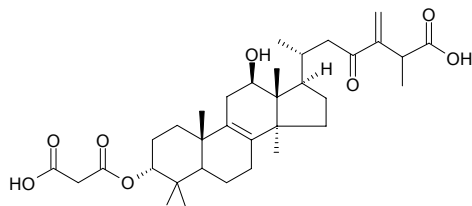
**7862 Fomitopic acid B**

C<sub>33</sub>H<sub>48</sub>O<sub>5</sub> (524.75). **Source:** HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.017%fw). **Ref:** 1521, 4798.

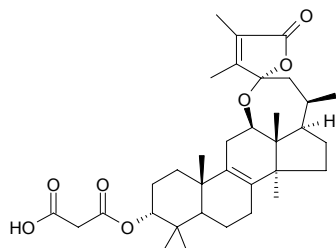


**7863 Fomitopsin A**

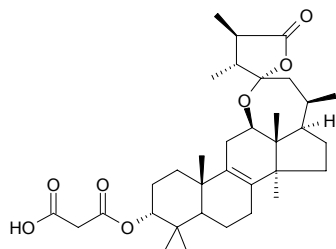
3-Carboxyacetyloxy-24-exomethylene-12 $\beta$ -hydroxy-23-oxo-lanost-8-en-26-oic acid C<sub>34</sub>H<sub>50</sub>O<sub>8</sub> (586.77). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +5.5° (c = 0.4, CHCl<sub>3</sub>). Source: CENG KONG JUN *Fomitopsis spraguei*. Ref: 5302.

**7864 Fomitopsin B**

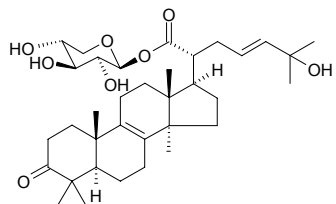
C<sub>34</sub>H<sub>48</sub>O<sub>7</sub> (568.76). Source: CENG KONG JUN *Fomitopsis spraguei*. Ref: 5302.

**7865 Fomitopsin C**

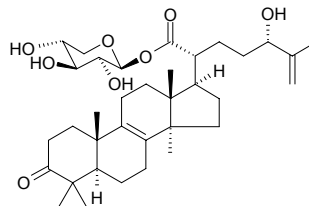
C<sub>34</sub>H<sub>50</sub>O<sub>7</sub> (570.77). Source: CENG KONG JUN *Fomitopsis spraguei*. Ref: 5302.

**7866 Fomitoside A**

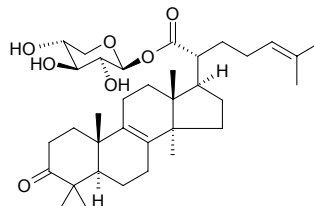
C<sub>35</sub>H<sub>54</sub>O<sub>8</sub> (602.82). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +1.1° (c = 0.2, MeOH). Source: HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.00055%fw). Ref: 4798.

**7867 Fomitoside B**

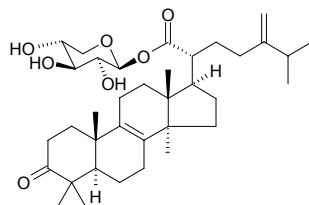
C<sub>35</sub>H<sub>54</sub>O<sub>8</sub> (602.82). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -18.3° (c = 0.2, MeOH). Source: HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.00091%fw). Ref: 4798.

**7868 Fomitoside C**

3-Oxolanosta-8,24-dien-21-oic acid 21-O- $\beta$ -D-xylopyranoside C<sub>35</sub>H<sub>54</sub>O<sub>7</sub> (586.82). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +31.4° (c = 2.4, MeOH). Pharm: Anti-inflammatory (*in vitro*, COX-1 inhibitor, IC<sub>50</sub> = 1.91mmol/L, COX-2 inhibitor, IC<sub>50</sub> = 5.11mmol/L; control Indomethacin, COX-1 inhibitor, IC<sub>50</sub> = 0.10 $\mu$ mol/L; COX-2 inhibitor, IC<sub>50</sub> = 0.60 $\mu$ mol/L). Source: HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.0044%fw). Ref: 4798.

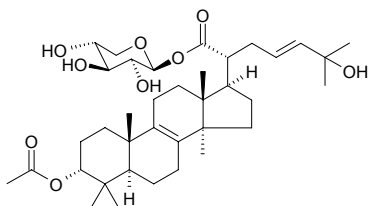
**7869 Fomitoside D**

3-Oxolanosta-8,24(31)-dien-21-oic acid 21-O- $\beta$ -D-xylopyranoside C<sub>36</sub>H<sub>56</sub>O<sub>7</sub> (600.84). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +36.6° (c = 0.6, MeOH). Pharm: Anti-inflammatory (*in vitro*, COX-1 inhibitor, IC<sub>50</sub> = 3.33mmol/L, COX-2 inhibitor, IC<sub>50</sub> = 2.39mmol/L; control Indomethacin, COX-1 inhibitor, IC<sub>50</sub> = 0.10 $\mu$ mol/L; COX-2 inhibitor, IC<sub>50</sub> = 0.60 $\mu$ mol/L). Source: HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.0054%fw). Ref: 4798.

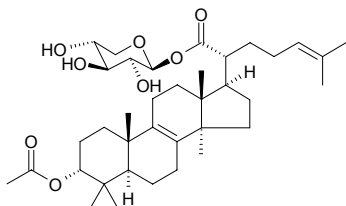


**7870 Fomitoside E**

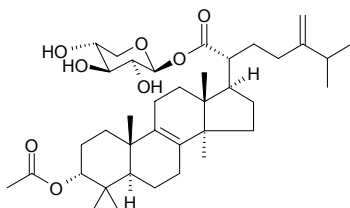
25-Hydroxy-3 $\alpha$ -acetoxylanost-8-en-21-oic acid 21-*O*- $\beta$ -*D*-xylopyranoside C<sub>37</sub>H<sub>58</sub>O<sub>9</sub> (646.87). Amorphous powder,  $[\alpha]_D^{25} = +1.6^\circ$  ( $c = 0.7$ , MeOH). **Pharm:** Anti-inflammatory (*in vitro*, COX-1 inhibitor, 10 $\mu$ g/mL, InRt = 57.2%, COX-2 inhibitor, IC<sub>50</sub> = 0.15 $\mu$ mol/L; control Indomethacin, COX-1 inhibitor, IC<sub>50</sub> = 0.10 $\mu$ mol/L; COX-2 inhibitor, IC<sub>50</sub> = 0.60 $\mu$ mol/L). **Source:** HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.0018%fw). **Ref:** 4798.

**7871 Fomitoside F**

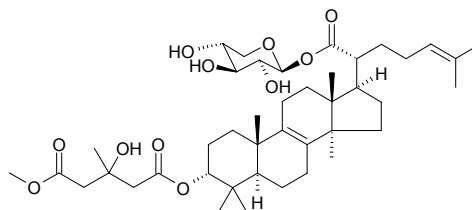
C<sub>37</sub>H<sub>58</sub>O<sub>8</sub> (630.87). Colorless needles (MeOH), mp 185–186.6°C,  $[\alpha]_D^{25} = -3.4^\circ$  ( $c = 2.6$ , MeOH). **Pharm:** Anti-inflammatory (*in vitro*, COX-1 inhibitor, 10 $\mu$ g/mL, InRt = 27.5%, COX-2 inhibitor, IC<sub>50</sub> = 1.13 $\mu$ mol/L; control Indomethacin, COX-1 inhibitor, IC<sub>50</sub> = 0.10 $\mu$ mol/L; COX-2 inhibitor, IC<sub>50</sub> = 0.60 $\mu$ mol/L). **Source:** HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.010%fw). **Ref:** 4798.

**7872 Fomitoside G**

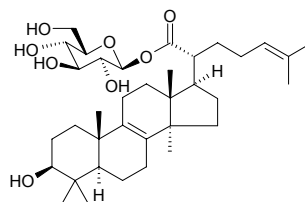
3 $\alpha$ -Acetoxylanosta-8,24(31)-dien-21-oic acid 21-*O*- $\beta$ -*D*-xylopyranoside C<sub>38</sub>H<sub>60</sub>O<sub>8</sub> (644.9). Amorphous powder,  $[\alpha]_D^{25} = +5.0^\circ$  ( $c = 0.7$ , MeOH). **Pharm:** Anti-inflammatory (*in vitro*, COX-1 inhibitor, 10 $\mu$ g/mL, InRt = 21.7%, COX-2 inhibitor, IC<sub>50</sub> = 18.5 $\mu$ mol/L; control Indomethacin, COX-1 inhibitor, IC<sub>50</sub> = 0.10 $\mu$ mol/L; COX-2 inhibitor, IC<sub>50</sub> = 0.60 $\mu$ mol/L). **Source:** HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.0018%fw). **Ref:** 4798.

**7873 Fomitoside H**

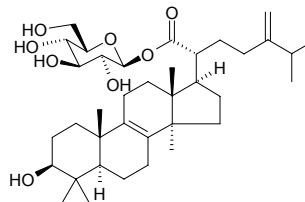
C<sub>42</sub>H<sub>66</sub>O<sub>11</sub> (746.99). Amorphous powder,  $[\alpha]_D^{25} = -67.4^\circ$  ( $c = 0.2$ , MeOH). **Pharm:** Anti-inflammatory (*in vitro*, COX-1 inhibitor, IC<sub>50</sub> = 73.9 $\mu$ mol/L, COX-2 inhibitor, 10 $\mu$ g/mL, InRt = 70.1%; control Indomethacin, COX-1 inhibitor, IC<sub>50</sub> = 0.10 $\mu$ mol/L; COX-2 inhibitor, IC<sub>50</sub> = 0.60 $\mu$ mol/L). **Source:** HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.0025%fw). **Ref:** 4798.

**7874 Fomitoside I**

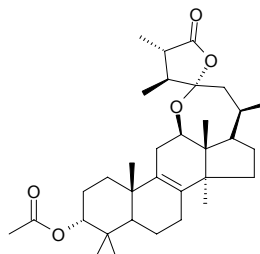
Trametenolic acid 21-*O*- $\beta$ -*D*-glucopyranoside C<sub>36</sub>H<sub>58</sub>O<sub>8</sub> (618.86). Amorphous powder,  $[\alpha]_D^{25} = +1.77^\circ$  ( $c = 0.1$ , MeOH). **Source:** HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.00055%fw). **Ref:** 4798.

**7875 Fomitoside J**

Eburicic acid 21-*O*- $\beta$ -*D*-glucopyranoside C<sub>37</sub>H<sub>60</sub>O<sub>8</sub> (632.89). Amorphous powder,  $[\alpha]_D^{25} = +22.1^\circ$  ( $c = 0.3$ , MeOH). **Source:** HONG YUAN CENG KONG JUN *Fomitopsis pinicola* [Syn. *Fomes pinicola*; *Polyporus pinicola*] (sporocarp: yield = 0.00064%fw). **Ref:** 4798.

**7876 Fomlactone A**

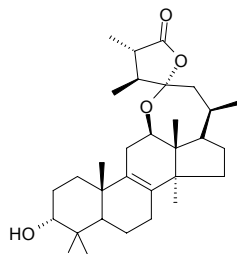
C<sub>33</sub>H<sub>50</sub>O<sub>5</sub> (526.76). White needles (MeOH), mp 184–186°C,  $[\alpha]_D^{15} = +30^\circ$  ( $c = 0.02$ , CHCl<sub>3</sub>). **Source:** FEN ROU CENG KONG JUN *Fomes cajanderi* (sporocarp: yield = 0.0018%dw). **Ref:** 4726.



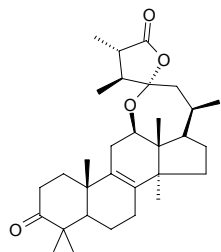


**7877 Fomlactone B**

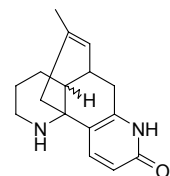
$C_{31}H_{48}O_4$  (484.73). White needles (MeOH), mp 278~280°C,  $[\alpha]_D^{15} = +37^\circ$  ( $c = 0.06$ ,  $CHCl_3$ ). Source: FEN ROU CENG KONG JUN *Fomes cajanderi* (sporocarp: yield = 0.0020%dw). Ref: 4726.

**7878 Fomlactone C**

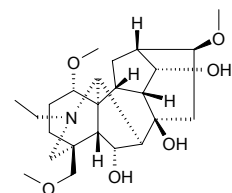
$C_{31}H_{46}O_4$  (482.71). White crystals (MeOH), mp 246~250°C,  $[\alpha]_D^{15} = +40^\circ$  ( $c = 0.03$ ,  $CHCl_3$ ). Source: FEN ROU CENG KONG JUN *Fomes cajanderi* (sporocarp: yield = 0.00012%dw). Ref: 4726.

**7879 Fordimine**

[103548-82-9]  $C_{16}H_{20}N_2O$  (256.35). Acicular crystals, mp 149~150°C (dec). Source: HUA NAN MA WEI SHAN *Phlegmarius fordii*. Ref: 95.

**7880 Foresticine**

[91794-15-9]  $C_{24}H_{39}NO_6$  (437.58). Source: LI JIANG WU TOU *Aconitum forrestii* [Syn. *Aconitum likiangense*]. Ref: 1521.

**7881 Formaldehyde**

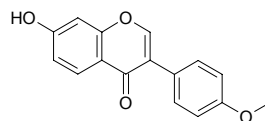
Methanal [50-00-0]  $CH_2O$  (30.03). mp  $-92^\circ C$ , bp  $-21^\circ C$ . Source: CU vinegar, NIU BANG GEN *Arctium lappa*, YANG SHI CAO *Achillea millefolium*. Ref: 6.

**7882 Formic acid**

Methanoic acid [64-18-6]  $CH_2O_2$  (46.03). mp  $8.4^\circ C$ , bp  $100.5^\circ C$ . Pharm: Astringent; corrosion. Source: BAI GUO *Ginkgo biloba*, BAI BU *Stemona tuberosa*, QIAN MA *Urtica cannabina*, KUAN YE XIANG PU *Typha latifolia*. Ref: 2, 658, 660.

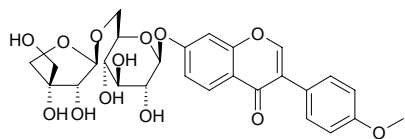
**7883 Formononetin**

Pratol; 7-Hydroxy-4'-methoxyisoflavone; Formononetin [485-72-3]  $C_{16}H_{12}O_4$  (268.27). mp 265~266°C; 257~258°C; 256~257°C. Pharm: Diuretic (in clinic); estrogenic activity; antihypercholesterolemic (male rat, hyperlipemia, due to Triton WR1339); hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by *D*-galactosamine (GalN), 100  $\mu$ mol/L, InRt = (6.3 $\pm$ 1.0)%), inactive, control Silybin, 100  $\mu$ mol/L, InRt = (77.0 $\pm$ 5.5)%<sup>[4095]</sup>; antimalarial (*Plasmodium falciparum* PoW, IC<sub>50</sub> > 50  $\mu$ g/mL, control Chloroquine diphosphate, IC<sub>50</sub> = (0.006 $\pm$ 0.002)  $\mu$ g/mL; Dd2, IC<sub>50</sub> < 50  $\mu$ g/mL, Chloroquine diphosphate, IC<sub>50</sub> = (0.063 $\pm$ 0.01)  $\mu$ g/mL)<sup>[5208]</sup>; antibacterial (*Escherichia coli*, MIA = 50.0  $\mu$ g, control Chloramphenicol, MIA = 0.001  $\mu$ g; *Bacillus subtilis*, MIA = 50.0  $\mu$ g, Chloramphenicol, MIA = 0.001  $\mu$ g; *Staphylococcus aureus*, MIA = 10.0  $\mu$ g, Chloramphenicol, MIA = 0.001  $\mu$ g)<sup>[3785]</sup>; antifungal (*Candida mycoderma*, MIA = 10.0  $\mu$ g, Miconazole = MIA = 0.0001  $\mu$ g)<sup>[3785]</sup>; antioxidant (DPPH scavenger, TLC detection limit = 0.5  $\mu$ g, IC<sub>50</sub> = 960  $\mu$ g/mL; control Quercetin, TLC detection limit < 0.05  $\mu$ g, IC<sub>50</sub> = 7  $\mu$ g/mL; Gallic acid, TLC detection limit < 0.05  $\mu$ g, IC<sub>50</sub> = 4  $\mu$ g/mL; Ascorbic acid, TLC detection limit < 0.10  $\mu$ g, IC<sub>50</sub> = 18  $\mu$ g/mL)<sup>[3785]</sup>. Source: AO DA LI YA YAN DIAN *Baptisia australis*, BO TE LAN DA JI *Euphorbia portlandica* (whole herb), CI GUO GAN CAO *Glycyrrhiza pallidiflora*, CI MANG BING HUA *Ononis spinosa*, DI XIA CHE ZHOU CAO *Trifolium subterraneum*, DUO MAI NAN MEI ROU DOU KOU *Viola multinervia*, GAN CAO *Glycyrrhiza uralensis*, GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], GUANG GUO GAN CAO *Glycyrrhiza glabra*, HONG CHE ZHOU CAO *Trifolium pratense*, HUANG QI *Astragalus membranaceus* (dried root: mean content of 5 origins = 0.0068%)<sup>[5519]</sup>, HUI HUI DOU *Cicer arietinum*, KU SHEN *Sophora flavescens* [Syn. *Sophora angustifolia*], LUO HUA NAN MEI ROU DOU KOU *Viola caducifolia*, MENG GU HUANG QI *Astragalus mongholicus* (dried root: mean content of 4 origins = 0.0032%)<sup>[5508]</sup>, MU XU *Medicago sativa*, SI TE WEN HUANG TAN *Dalbergia stevensonii*, WU CI KE YA SHU *Andira inermis* (leaf), XI A LA HUANG TAN *Dalbergia cearensis*, YI KA TUO YE HUANG TAN *Dalbergia ecastophyllum*, ZI SUI HUI *Amorpha fruticosa*, ZI TAN *Pterocarpus indicus*, *Baptisia* spp., family Fabaceae spp., *Bolusanthus speciosus* (root wood), occurs in many plants. Ref: 6, 2, 6, 243, 372, 379, 658, 660, 1521, 3785, 4095, 5019, 5208, 5508, 5519.

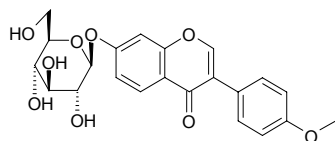


**7884 Formononetin-7-O- $\beta$ -D-apiofuranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside**

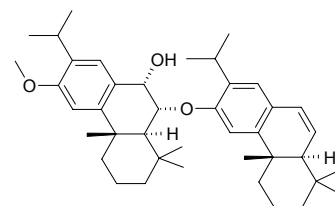
$C_{27}H_{30}O_{13}$  (562.53). White powder,  $[\alpha]_D^{25} = +78.2^\circ$  ( $c = 0.25$ , MeOH:H<sub>2</sub>O = 1:0.5). **Source:** FENG CHENG JI XUE TENG *Milletia nitida* var. *hirsutissima* (stem). **Ref:** 4455.

**7885 Formononetin-7-glucoside**

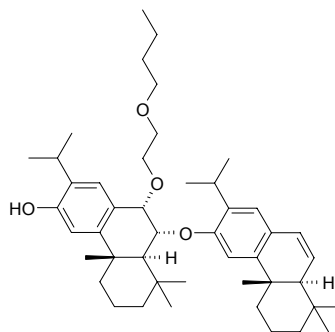
Ononin; Ononoside [486-62-4]  $C_{22}H_{22}O_9$  (430.42). **Source:** GAN CAO *Glycyrrhiza uralensis* (root and rhizome: mean content of 4 origins = 0.037%<sup>[5508]</sup>), GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], GUANG GUO GAN CAO *Glycyrrhiza glabra* (root and rhizome: content = 0.032%<sup>[5508]</sup>), HUANG GAN CAO *Glycyrrhiza kansuensis* (root and rhizome: content = 0.0279%<sup>[5508]</sup>), ZHANG GUO GAN CAO *Glycyrrhiza inflata* (root and rhizome: content = 0.011%<sup>[5508]</sup>). **Ref:** 2, 660, 5508.

**7886 Formosadimer A**

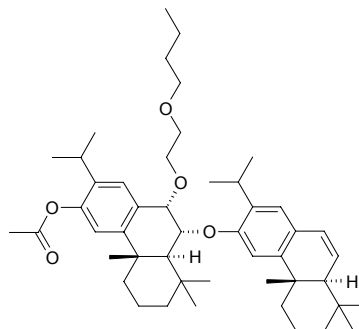
6,7-Dehydroabieta-8,11,13-trien-12-yl 7 $\alpha$ -hydroxy-12-methoxyabieta-8,11,13-trien-6 $\alpha$ -yl ether  $C_{41}H_{58}O_3$  (598.92). Gum,  $[\alpha]_D^{23} = +45.9^\circ$  ( $c = 0.4$ , MeOH). **Source:** TAI WAN CUI BAI *Calocedrus macrolepis* var. *formosana* (bark). **Ref:** 4531.

**7887 Formosadimer B**

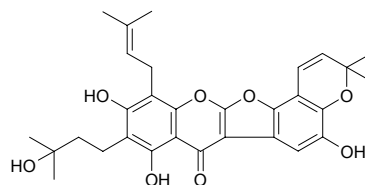
7 $\alpha$ -Butoxyethoxy-12-hydroxyabieta-6 $\alpha$ -yl 6,7-dehydroabieta-8,11,13-trien-12-yl ether  $C_{46}H_{68}O_4$  (685.05). Gum,  $[\alpha]_D^{25} = +85.8^\circ$  ( $c = 0.3$ , MeOH). **Source:** TAI WAN CUI BAI *Calocedrus macrolepis* var. *formosana* (bark). **Ref:** 4531.

**7888 Formosadimer C**

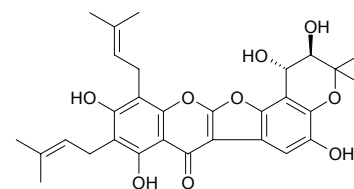
12-Acetoxy-7 $\alpha$ -butoxyethoxyabieta-6 $\alpha$ -yl 6,7-dehydroabieta-8,11,13-trien-12-yl ether  $C_{48}H_{70}O_5$  (727.09). Gum,  $[\alpha]_D^{25} = +37.0^\circ$  ( $c = 0.2$ , MeOH). **Source:** TAI WAN CUI BAI *Calocedrus macrolepis* var. *formosana* (bark). **Ref:** 4531.

**7889 Formosanatin A**

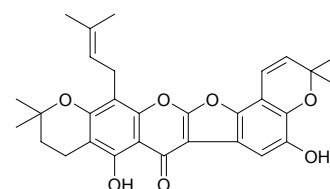
{5,7,5'-Trihydroxy-6-(3-hydroxy-3-methylbutyl)-8-( $\gamma,\gamma$ -dimethylallyl)-[6''',6'''-dimethylpyrano-(2''',3''':4',3')] }-coumaronochromone  $C_{30}H_{32}O_8$  (520.58). Colorless needles, mp 221~223°C. **Source:** TAI WAN SHAN DOU GEN *Euchresta formosana*. **Ref:** 1977.

**7890 Formosanatin B**

{5,7,5',4''',5''''-Pentahydroxy-6,8-bis-( $\gamma,\gamma$ -dimethylallyl)-[6''',6'''-dimethyl-4''',5''''-dihydropyrano-(2''',3''':4',3')] }-coumaronochromone  $C_{30}H_{32}O_9$  (536.58). Yellow needles, mp 243~245°C,  $[\alpha]_D^{24} = -40^\circ$  ( $c = 0.05$ , CHCl<sub>3</sub>). **Source:** TAI WAN SHAN DOU GEN *Euchresta formosana*. **Ref:** 1977.

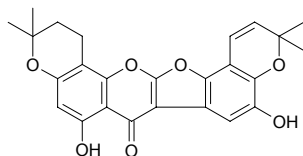
**7891 Formosanatin C**

{5,5'-Dihydroxy-8-( $\gamma,\gamma$ -dimethylallyl)-[6'',6''-dimethyl-4'',5''-dihydropyrano-(2'',3'':7,6)]-[6''',6'''-dimethylpyrano-(2''',3''':4',3')] }-coumaronochromone  $C_{30}H_{30}O_7$  (502.57). Pale yellow Needles, mp 248~250°C. **Source:** TAI WAN SHAN DOU GEN *Euchresta formosana*. **Ref:** 1977.

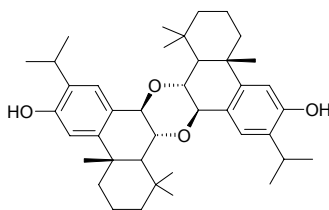


**7892 Formosanatin D**

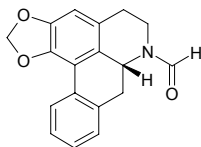
{5,5'-Dihydroxy-8-[6",6"-dimethyl-4",5"-dihydropyrano-(2",3":7,8)]-[6""",6""-dimethylpyrano-(2""",3""":4',3')]}-coumaronochromone C<sub>25</sub>H<sub>22</sub>O<sub>7</sub> (434.45). Yellow needles (CHCl<sub>3</sub>), mp 246~248°C. Source: TAI WAN SHAN DOU GEN *Euchresta formosana*. Ref: 1977.

**7893 Formosaninol**

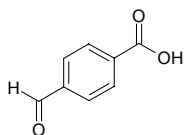
C<sub>40</sub>H<sub>56</sub>O<sub>4</sub> (600.89). Colorless solid, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +36.3° (c = 0.48, CHCl<sub>3</sub>). Source: RI BEN LIU SHAN *Cryptomeria japonica* (black heartwood). Ref: 4268.

**7894 N-Formylanonaine**

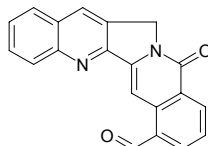
C<sub>18</sub>H<sub>15</sub>NO<sub>3</sub> (293.33). Pharm: Platelet aggregation inhibitor (rat blood): 2~5μmol/L ADP-induced, IC<sub>50</sub> = 930μmol/L, control Acetylsalicylic acid, IC<sub>50</sub> > 1000μmol/L; 2~5μg/mL collagen-induced, IC<sub>50</sub> = 6.9μmol/L, Acetylsalicylic acid, IC<sub>50</sub> = 420μmol/L; 1~4μmol/L epinephrine-induced with threshold concentration of collagen (0.8~1.0μg/mL), IC<sub>50</sub> = 0.24μmol/L, Acetylsalicylic acid, IC<sub>50</sub> = 53μmol/L; 10~40μmol/L AA-induced with threshold concentration of collagen (0.8~1.0μg/mL), IC<sub>50</sub> = 0.27μmol/L, Acetylsalicylic acid, IC<sub>50</sub> = 66μmol/L; 1~5μmol/L U46619-induced with threshold concentration of collagen (0.8~1.0μg/mL), IC<sub>50</sub> = 3.8μmol/L, Acetylsalicylic acid, IC<sub>50</sub> = 340μmol/L; 1~2μmol/L hmn U46619 in 1mmol/L acetylsalicylic acid -induced, IC<sub>50</sub> > 100μmol/L, control Pentolamine, IC<sub>50</sub> > 100μmol/L, control Yohimbine, IC<sub>50</sub> > 100μmol/L)<sup>[5381]</sup>. Source: RI BEN HOU PO *Magnolia obovata* (leaf). Ref: 5381.

**7895 p-Formyl benzoic acid**

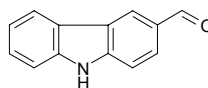
C<sub>8</sub>H<sub>6</sub>O<sub>3</sub> (150.14). Source: TAI WAN FU RONG *Hibiscus taiwanensis*. Ref: 2529.

**7896 20-Formylbenzo[6,7]indolizino[1,2-b]quinolin-11 (13H)-one**

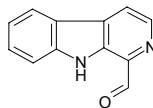
C<sub>20</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub> (312.33). Source: XI SHU *Camptotheca acuminata*. Ref: 4097.

**7897 3-Formylcarbazole**

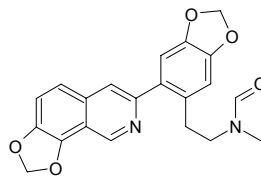
C<sub>13</sub>H<sub>9</sub>NO (195.22). Pharm: Antitubercular (MIC > 128μg/mL, control Rifampin, MIC = (0.040±0.017)μg/mL)<sup>[5072]</sup>; cytotoxic (Vero, IC<sub>50</sub> > 102μg/mL, Rifampin, IC<sub>50</sub> = 100μg/mL)<sup>[5072]</sup>; antibacterial (*Mycobacterium tuberculosis*, MIC = 100μg/mL, control Isoniazide, MIC = 0.040~0.090μg/mL, Kanamycin sulfate, MIC = 2.0~5.0μg/mL)<sup>[5367]</sup>; antifungal (*Candida albicans*, IC<sub>50</sub> = 13.6μg/mL, control Amphotericin, IC<sub>50</sub> = 0.01μg/mL)<sup>[5367]</sup>. Source: SHAN HUANG PI *Clausena excavata*, YING MAO XIAO YUN MU *Micromelum hirsutum* (stem cortex). Ref: 5072, 5367.

**7898 1-Formyl-β-carboline**

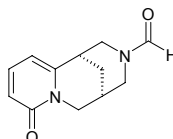
[20127-63-3] C<sub>12</sub>H<sub>8</sub>N<sub>2</sub>O (196.21). Orange crystals, mp 200~202°C. Source: KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12.

**7899 N-Formylecorydamine**

[In DNP] C<sub>21</sub>H<sub>18</sub>N<sub>2</sub>O<sub>5</sub> (378.39). mp 159.5~160.5°C. Source: ZI HUA YU DENG CAO *Corydalis incisa*. Ref: 6.

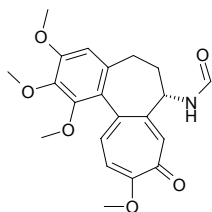
**7900 N-Formylcytisine**

[53007-06-0] C<sub>12</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub> (218.26). Colorless acicular crystals, mp 174~176°C, [ $\alpha$ ]<sub>D</sub> = -233° (c = 0.16, EtOH). Source: MU MA DOU *Thermopsis lanceolata*. Ref: 699.

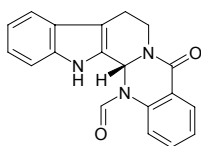


**7901 N-Formyl-N-deacetylcolchicine**

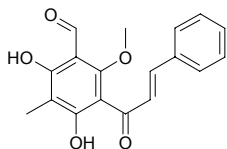
$C_{21}H_{23}NO_6$  (385.42). mp 264~266°C. Source: CAO BEI MU *Iphigenia indica*. Ref: 6.

**7902 14-Formyldihydorutaecarpine**

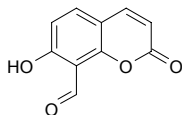
[68353-23-1]  $C_{19}H_{15}N_3O_2$  (317.35). Source: WU ZHU YU *Evodia rutaecarpa* (dried and almost ripe fruit: content scope of 7 origins = trace~0.21%, mean content = 0.04%<sup>[5508]</sup>). Ref: 1521, 5508.

**7903 3'-Formyl-4',6'-dihydroxy-2'-methoxy-5'-methylchalcone**

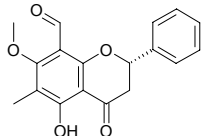
$C_{18}H_{16}O_5$  (312.33). Orange yellow needles (MeOH), mp 123~124°C. Source: SHUI RONG *Cleistocalyx operculatus* (bud). Ref: 3768.

**7904 8-Formyl-7-hydroxycoumarin**

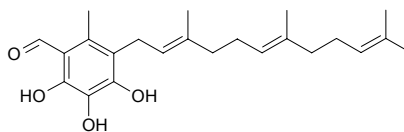
$C_{10}H_6O_4$  (190.16). Pharm: Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500mol ratio/32 pmol TPA: EBV-EA-positive cells = (12.0±2.3)% (viability = 60%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability >80), Curcumin, EBV-EA-positive cells = (22.8±1.8)% (viability > 80%), compound  $IC_{50}$  = 129mol ratio/32 pmol TPA,  $\beta$ -Carotene,  $IC_{50}$  = 400mol ratio/32 pmol TPA, Curcumin,  $IC_{50}$  = 341mol ratio/32 pmol TPA). Source: YOU PU TAO YPU ZA JIAO ZHONG *Citrus grandis* cv. x *Citrus paradisi*. Ref: 5048.

**7905 (2S)-8-Formyl-5-hydroxy-7-methoxy-6-methylflavanone**

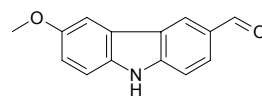
$C_{18}H_{16}O_5$  (312.33). Yellow needles (MeOH), mp 154~155°C,  $[\alpha]_D^{25} = -2.4^\circ$  ( $c = 0.01$ , MeOH). Source: SHUI RONG *Cleistocalyx operculatus* (bud). Ref: 3768.

**7906 1-Formyl-3-hydroxyneogrifolin**

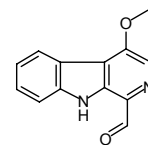
$C_{23}H_{32}O_4$  (372.51). Yellow needles, mp 83~84°C. Source: RE BEN MO GU *Albatrellus ovinus*. Ref: 2005.

**7907 3-Formyl-6-methoxycarbazole**

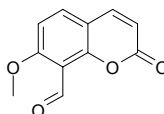
$C_{14}H_{11}NO_2$  (225.25). Pharm: Antitubercular (MIC = (42.3±0.5)µg/mL, control Rifampin, MIC = (0.040±0.017)µg/mL); cytotoxic vero,  $IC_{50}$  = 101µg/mL, Rifampin,  $IC_{50}$  = 100µg/mL<sup>[5072]</sup>. Source: YING MAO XIAO YUN MU *Micromelum hirsutum* (stem cortex). Ref: 5072.

**7908 1-Formyl-4-methoxy-β-carboline**

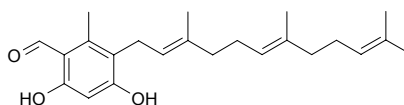
Kumujancine [92631-69-1]  $C_{13}H_{10}N_2O_2$  (226.24). Yellowish needle crystals, mp 209~210°C. Source: KU MU *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12.

**7909 8-Formyl-7-methoxycoumarin**

$C_{11}H_8O_4$  (204.18). Pharm: Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500mol ratio/32 pmol TPA: EBV-EA-positive cells = (19.5±1.7)% (viability > 80%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability >80), Curcumin, EBV-EA-positive cells = (22.8±1.8)% (viability > 80%), compound  $IC_{50}$  = 217mol ratio/32 pmol TPA,  $\beta$ -Carotene,  $IC_{50}$  = 400mol ratio/32 pmol TPA, Curcumin,  $IC_{50}$  = 341mol ratio/32 pmol TPA). Source: CHENG ZI *Citrus junos*, *Citrus rugulosa*, *Citrus sulcata*. Ref: 5048.

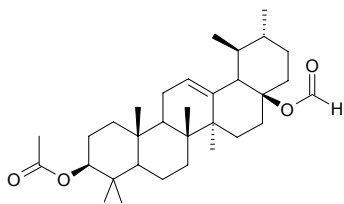
**7910 1-Formylneogrifolin**

$C_{23}H_{32}O_3$  (356.51). White plates, mp 98~102°C. Source: RE BEN MO GU *Albatrellus ovinus*. Ref: 2005.

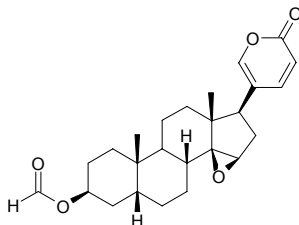


**7911 17 $\beta$ -Formyloxy-3 $\beta$ -acetyloxy-28-nor-urs-12-ene**

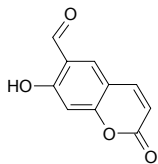
C<sub>32</sub>H<sub>50</sub>O<sub>4</sub> (498.75). Colorless needles (MeOH), mp 203~204°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +59° (*c* = 0.05, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (HL-60 cells, IC<sub>50</sub> = (83±24)μmol/L). **Source:** ZHI ZHUANG E AN *Eucalyptus cladocalyx* (leaf). **Ref:** 5259.

**7912 3 $\beta$ -Formyloxyresibufogenin**

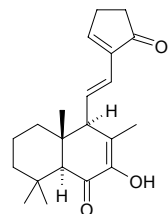
C<sub>25</sub>H<sub>32</sub>O<sub>5</sub> (412.53). Colorless solid, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +12.0° (*c* = 0.1, CH<sub>3</sub>OH). **Pharm:** Cytotoxic (*in vitro*, KB, IC<sub>50</sub> = 3.4μg/mL; HL-60, IC<sub>50</sub> = 1μg/mL; MH-60, IC<sub>50</sub> = 8.1μg/mL; BXPC3, IC<sub>50</sub> = 1.6μg/mL; MCF7, IC<sub>50</sub> = 0.6μg/mL; SF268, IC<sub>50</sub> = 0.38μg/mL; NCI-H460, IC<sub>50</sub> = 0.53μg/mL; KM20L2, IC<sub>50</sub> = 0.54μg/mL; DU145, IC<sub>50</sub> = 0.42μg/mL). **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. **Ref:** 3082.

**7913 6-Formylumbelliferone**

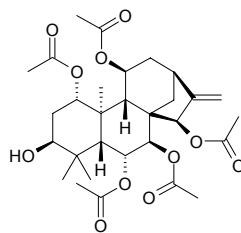
C<sub>10</sub>H<sub>6</sub>O<sub>4</sub> (190.16). **Pharm:** Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500mol ratio/32 pmol TPA: EBV-EA-positive cells = (44.9±1.2)% (viability > 80%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability >80), Curcumin, EBV-EA-positive cells = (22.8±1.8)% (viability > 80%), compound IC<sub>50</sub> = 449mol ratio/32 pmol TPA,  $\beta$ -Carotene, IC<sub>50</sub> = 400mol ratio/32 pmol TPA, Curcumin, IC<sub>50</sub> = 341mol ratio/32 pmol TPA). **Source:** *Citrus medica* var. *etrog*. **Ref:** 5048.

**7914 Forrestiin A**

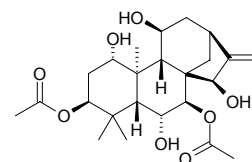
[163597-22-6] C<sub>20</sub>H<sub>26</sub>O<sub>4</sub> (330.43). Acicular crystals, [ $\alpha$ ]<sub>D</sub><sup>19</sup> = +105.6° (*c* = 0.71, chloroform). **Pharm:** Cytotoxic (KB *in vitro*, IC<sub>50</sub> = 18.96μg/mL). **Source:** YUAN BAN JIANG HUA *Hedychium forrestii*. **Ref:** 322.

**7915 Forrestin A**

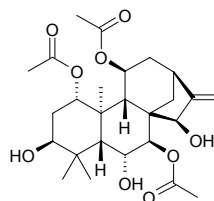
C<sub>30</sub>H<sub>42</sub>O<sub>11</sub> (578.66). mp 276~278°C, [ $\alpha$ ]<sub>D</sub> = -27.93° (*c* = 0.54, MeOH). **Source:** ZI E XIANG CHA CAI *Isodon forrestii*. **Ref:** 4067.

**7916 Forrestin B**

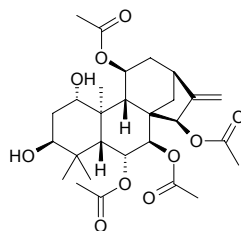
C<sub>24</sub>H<sub>36</sub>O<sub>8</sub> (452.55). mp 228~229°C. **Source:** ZI E XIANG CHA CAI *Isodon forrestii*. **Ref:** 4067.

**7917 Forrestin C**

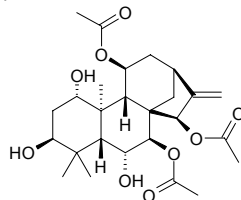
C<sub>26</sub>H<sub>38</sub>O<sub>9</sub> (494.59). mp 291~292°C, [ $\alpha$ ]<sub>D</sub> = -29.44° (*c* = 0.523, MeOH). **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.00073%dw), ZI E XIANG CHA CAI *Isodon forrestii*. **Ref:** 4067, 4640.

**7918 Forrestin D**

C<sub>28</sub>H<sub>40</sub>O<sub>10</sub> (536.63). mp 136~138°C, [ $\alpha$ ]<sub>D</sub> = -46.01° (*c* = 0.489, MeOH). **Source:** ZI E XIANG CHA CAI *Isodon forrestii*. **Ref:** 4067.

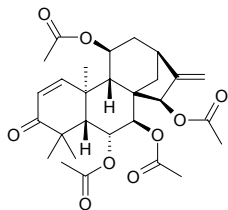
**7919 Forrestin E**

C<sub>26</sub>H<sub>38</sub>O<sub>9</sub> (494.59). mp 251~254°C. **Source:** ZI E XIANG CHA CAI *Isodon forrestii*. **Ref:** 4067.

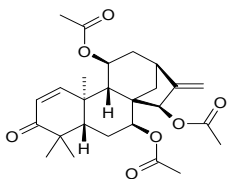


**7920 Forrestin F**

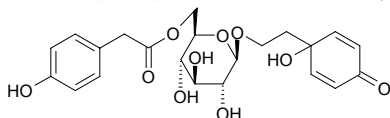
$C_{28}H_{36}O_9$  (516.59). mp 255~256°C,  $[\alpha]_D = -112.2^\circ$  ( $c = 0.55$ , MeOH). Source: ZI E XIANG CHA CAI *Isodon forrestii*. Ref: 4067.

**7921 Forrestin G**

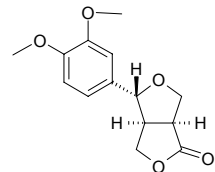
$C_{26}H_{34}O_7$  (458.56). mp 204~206°C,  $[\alpha]_D = -69.88^\circ$  ( $c = 0.508$ , MeOH). Source: ZI E XIANG CHA CAI *Isodon forrestii*. Ref: 4067.

**7922 Forsythenside A**

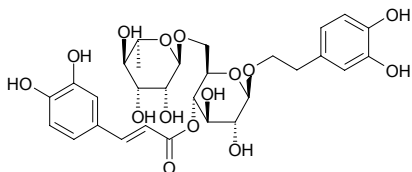
$C_{22}H_{26}O_{10}$  (450.45). Source: LIAN QIAO *Forsythia suspensa*. Ref: 8.

**7923 Forsythenside B**

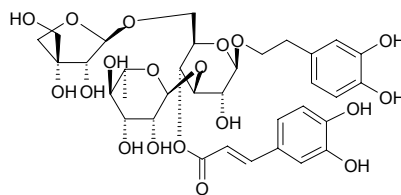
$C_{14}H_{16}O_5$  (264.28). Source: LIAN QIAO *Forsythia suspensa*. Ref: 8.

**7924 Forsythoside A**

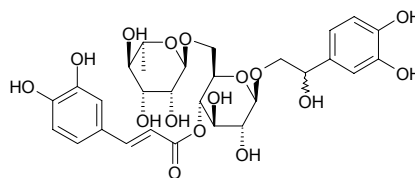
Forsythiaside [79916-77-1]  $C_{29}H_{36}O_{15}$  (624.60). Pale-yellowish powder + 2H<sub>2</sub>O, mp 144~150°C,  $[\alpha]_D^{20} = -18.6^\circ$  (EtOH). Pharm: Immunomodulator (selectively inhibits formation of 5-HETE and leukotriene LTB<sub>4</sub>, which are products of 5-lipoxygenase, IC<sub>50</sub> = 1.92 μmol/L and 1.01 μmol/L respectively); 5-HETE production inhibitor (IC<sub>50</sub> = 2.50 μmol/L); antiallergic; antiasthmatic; cAMP phosphodiesterase inhibitor (*in vitro*, IC<sub>50</sub> = 110 μmol/L); leucine aminopeptidase inhibitor (competitive, K<sub>i</sub> = 8.0 μmol/L); antibacterial (strong action for 11 pathogenic bacteria, including plant pathogenic bacteria); free radical scavenger; 5-lipoxygenase inhibitor (rat peritoneum cells and hmn leucocyte *in vitro*). Source: CHAO XIAN LIAN QIAO *Forsythia koreana*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], LIAN QIAO *Forsythia suspensa* (green fruit: mean content = 1.31%, ripe fruit: mean content = 0.64%<sup>[5508]</sup>). Ref: 2, 47, 658, 1639, 1640, 1641, 1642, 5508.

**7925 Forsythoside B**

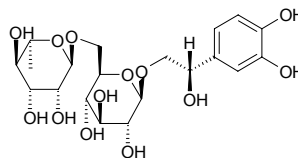
$C_{34}H_{44}O_{19}$  (756.72). Colorless amorphous powder,  $[\alpha]_D^{20} = -66^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antioxidant (*in vitro* inhibits LDL peroxidation, Cu<sup>2+</sup>-induced and AAPH-induced)<sup>[5370]</sup>; inhibits minimally oxidized LDL-induced cellular toxicity (cultured bovine aortic endothelial cells, BAEC)<sup>[5370]</sup>; antioxidant (DPPH free radical scavenger, IC<sub>50</sub> = 113 μmol/L, control Ascorbic acid IC<sub>50</sub> = 129 μmol/L)<sup>[5449]</sup>; antitrypanosomal (*Trypanosoma b. rhodesiense*, IC<sub>50</sub> = 5.8 μg/mL, control Melarsoprol, IC<sub>50</sub> = 0.00098 μg/mL; *Trypanosoma cruzi*, IC<sub>50</sub> > 90 μg/mL, control Benznidazole, IC<sub>50</sub> = 1.06 μg/mL)<sup>[5009]</sup>; antileishmanial (*Leishmania donovani*, IC<sub>50</sub> = 11.4 μg/mL, control Miltefosine, IC<sub>50</sub> = 0.102 μg/mL)<sup>[5009]</sup>; antimalarial (*Plasmodium falciparum*, IC<sub>50</sub> > 50 μg/mL, control Artemisinin, IC<sub>50</sub> = 0.0022 μg/mL)<sup>[5009]</sup>; cytotoxic (L6, IC<sub>50</sub> = 70.1 μg/mL, control Podophyllotoxin, IC<sub>50</sub> = 0.008 μg/mL)<sup>[5009]</sup>. Source: LIAN QIAO *Forsythia suspensa*, OU XIA ZHI CAO *Marrubium vulgare* (aerial parts), ZI HUA GUAN MAO RUI HUA *Verbascum wiedemannianum*, ZONG KUI CAO SU *Phlomis brunneogaleata*. Ref: 2, 5009, 5370, 5449.

**7926 Forsythoside C**

Suspensaside  $C_{29}H_{36}O_{16}$  (640.60). Powder, mp 177~181°C,  $[\alpha]_D^{18} = -18.7^\circ$  ( $c = 1.7$ , MeOH). Pharm: Antibacterial; free radical scavenger; inhibits metabolism of arachidonic acid (in leucocytes); 5-lipoxygenase inhibitor (rat, peritoneum cells); cAMP phosphodiesterase inhibitor; used in treatment of asthma and allergic disease. Source: LIAN QIAO *Forsythia suspensa*. Ref: 47, 658.

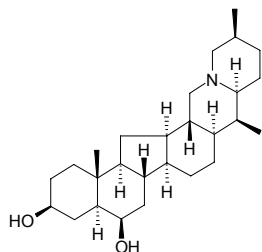
**7927 Forsythoside D**

Decaffeoyl forsythoside C [84233-74-9]  $C_{20}H_{30}O_{13}$  (478.45).  $[\alpha]_D = -30.5^\circ$  (methanol). Pharm: Antibacterial (*Staphylococcus aureus*, MIC ≤ 2 mmol/L). Source: LIAN QIAO *Forsythia suspensa*. Ref: 1037.

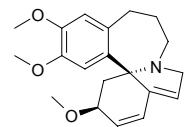


**7928 Forticine**

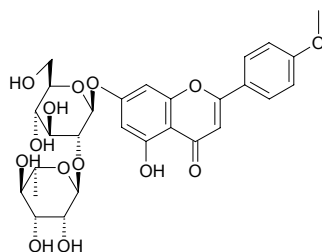
(20S,22S,25S)-5 $\alpha$ -Cevanine-3 $\beta$ ,6 $\beta$ -diol C<sub>27</sub>H<sub>45</sub>NO<sub>2</sub> (415.67). Colorless needle, mp 221~223°C (dec), [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -52° (c = 0.5, CHCl<sub>3</sub>). **Pharm:** AChE inhibitor (IC<sub>50</sub> > 500  $\mu$ mol/L, control Eserine, IC<sub>50</sub> = (0.41 $\pm$ 0.01)  $\mu$ mol/L); BChE inhibitor (IC<sub>50</sub> = (100.5 $\pm$ 0.5)  $\mu$ mol/L, control Eserine, IC<sub>50</sub> = (0.86 $\pm$ 0.01)  $\mu$ mol/L). **Source:** XI BEI MU *Fritillaria imperialis* (bulb). **Ref:** 4217.

**7929 Fortuneine**

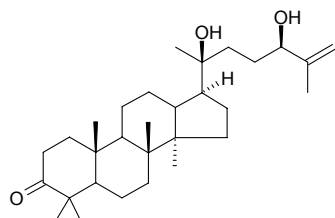
[87340-25-9] C<sub>20</sub>H<sub>25</sub>NO<sub>3</sub> (327.43). **Source:** SAN JIAN SHAN *Cephalotaxus fortunei*. **Ref:** 2.

**7930 Fortunellin**

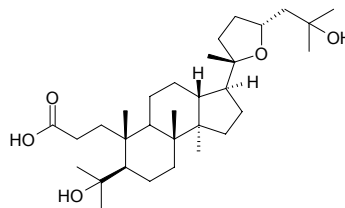
[20633-93-6] C<sub>28</sub>H<sub>32</sub>O<sub>14</sub> (592.56). mp 214~216°C. **Source:** JIN JU *Fortunella margarita*, JIN DAN *Fortunella crassifolia*. **Ref:** 6, 660.

**7931 Fouquierone**

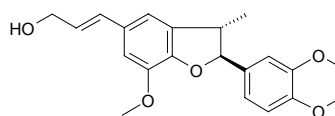
Dammar-25-ene-20,24-diol-3-one C<sub>30</sub>H<sub>50</sub>O<sub>3</sub> (458.73). White powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +58° (c = 0.16, CHCl<sub>3</sub>). **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (stem cortex). **Ref:** 4111.

**7932 Foveolin B**

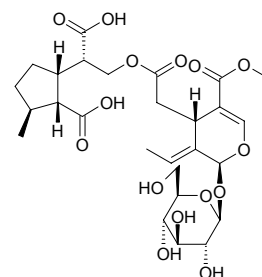
[220358-68-9] C<sub>31</sub>H<sub>54</sub>O<sub>5</sub> (506.77). **Source:** DA YE SHU LAN *Aglaia elliptifolia* (leaf: yield = 0.00020%dw), FENG CHAO MI ZI LAN *Aglaia foveolata*. **Ref:** 1521, 3031.

**7933 Fragransol C**

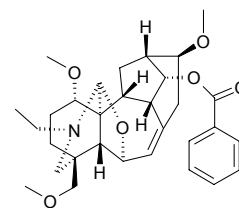
[114926-96-4] C<sub>21</sub>H<sub>24</sub>O<sub>3</sub> (356.42). **Source:** ROU DOU KOU *Myristica fragrans*. **Ref:** 909, 1521.

**7934 Frameroside**

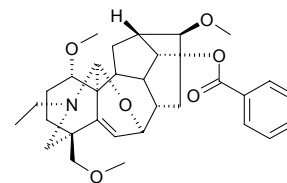
C<sub>27</sub>H<sub>38</sub>O<sub>15</sub> (602.59). Colorless amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = -134° (c = 1.09, MeOH). **Source:** MEI GUO BAI CEN *Fraxinus americana* (leaf). **Ref:** 5091.

**7935 Franchetine**

C<sub>31</sub>H<sub>41</sub>NO<sub>6</sub> (523.68). **Source:** ZHUA KUI GUA YE WU TOU *Aconitum hemsleyanum* var. *leueanthus* (root: yield = 0.0028%dw). **Ref:** 4678.

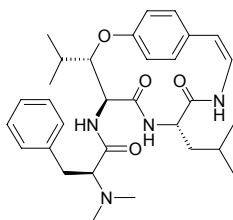
**7936 Franchitine**

[88661-42-1] C<sub>31</sub>H<sub>41</sub>NO<sub>6</sub> (523.68). White amorphous powder. **Source:** GONG BU WU TOU *Aconitum kongboense*. **Ref:** 2211, 1521.

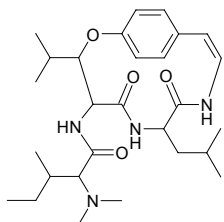


**7937 Frangufoline**

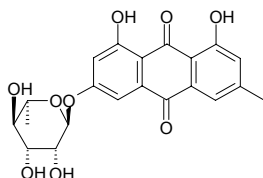
Sanjoinine A [19526-09-1] C<sub>31</sub>H<sub>42</sub>N<sub>4</sub>O<sub>4</sub> (534.70). mp 244°C. Source: MIAN ZAO *Ziziphus mauritiana*. Ref: 6.

**7938 Frangulanine**

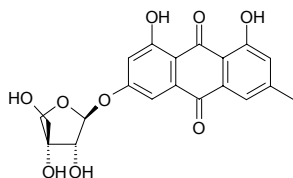
[25350-22-5] C<sub>28</sub>H<sub>44</sub>N<sub>4</sub>O<sub>4</sub> (500.69). mp 275~277°C. Pharm: Laxative. Source: OU SHU LI *Rhamnus frangula* [Syn. *Frangula alnus*], ZHI JU GEN *Hovenia dulcis*. Ref: 6, 658, 660.

**7939 Frangulin A**

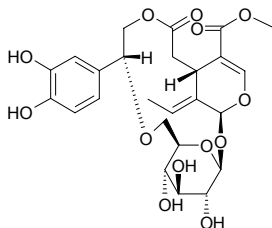
[521-62-0] C<sub>21</sub>H<sub>20</sub>O<sub>9</sub> (416.39). Pharm: Laxative. Source: YAO SHU LI *Rhamnus cathartica*, OU SHU LI *Rhamnus frangula* [Syn. *Frangula alnus*]. Ref: 658.

**7940 Frangulin B**

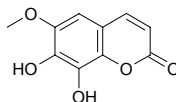
[14101-04-3] C<sub>20</sub>H<sub>18</sub>O<sub>9</sub> (402.36). Pharm: Laxative. Source: YAO SHU LI *Rhamnus cathartica*, OU SHU LI *Rhamnus frangula* [Syn. *Frangula alnus*]. Ref: 658.

**7941 Fraxamoside**

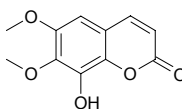
C<sub>25</sub>H<sub>30</sub>O<sub>13</sub> (538.51). Colorless amorphous powder,  $[\alpha]_D^{22} = -137^\circ$  ( $c = 0.12$ , MeOH). Source: MEI GUO BAI CEN *Fraxinus americana* (leaf). Ref: 5091.

**7942 Fraxetin**

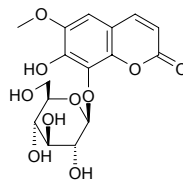
[574-84-5] C<sub>10</sub>H<sub>8</sub>O<sub>5</sub> (208.17). mp 228°C. Pharm: Antibacterial (*Bacillus dysenteriae*, used in treatment of infant bacillary dysentery). Source: MAO GUO QI *Acer nikoense* (stem cortex), XIAO YE CEN *Fraxinus bungeana*, HUA BAI LA SHU *Fraxinus ornus*, XI MA BAI LA SHU *Fraxinus floribunda*, RI BEN QI YE SHU *Aesculus turbinata*, OU ZHOU QI YE SHU *Aesculus hippocastanum*, BAI LA SHU *Fraxinus chinensis*. Ref: 2, 658, 660, 4304.

**7943 Fraxidin**

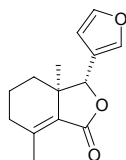
C<sub>11</sub>H<sub>10</sub>O<sub>5</sub> (222.20). Source: *Eurycoma* sp. Ref: 4556.

**7944 Fraxin**

Fraxoside; Paviin; Fraxetin-8-glucoside [524-30-1] C<sub>16</sub>H<sub>18</sub>O<sub>10</sub> (370.32). mp 205°C, easily soluble in hot water, hot EtOH, slightly soluble in cold water, cold ether, insoluble in ether<sup>[5507]</sup>. Pharm: Antibacterial; antitussive (dispels phlegm); diuretic;  $\beta$ -hexosaminidase inhibitor inactive (RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase, 100 $\mu$ mol/L, InRt =  $(-7.7 \pm 4.4)\%$ )<sup>[4304]</sup>. Source: HUA BAI LA SHU *Fraxinus ornus*, JIAN YE CEN *Fraxinus szaboana* [Syn. *Fraxinus chinensis* var. *acuminata*], LA MEI HUA *Chimonanthus fragrans* [Syn. *Chimonanthus praecox*], LIU YE CEN *Fraxinus stylosa*, MAO GUO QI *Acer nikoense* (stem cortex), OU ZHOU BAI LA SHU *Fraxinus excelsior*<sup>[5507]</sup>, OU ZHOU QI YE SHU *Aesculus hippocastanum*, QIN LING BAI LA SHU *Fraxinus paxiana*<sup>[5507]</sup>, TU ER QI SI TAN BAI LA SHU *Fraxinus potamophila*, XIAO YE CEN *Fraxinus bungeana*, *Symphoricarpos* sp., *Campanula* sp. Ref: 2, 658, 660, 4304, 5507.

**7945 Fraxinellone**

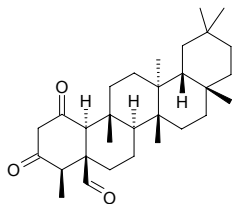
[28808-62-0] C<sub>14</sub>H<sub>16</sub>O<sub>3</sub> (232.28). mp 108~110°C; 120°C. Pharm: Anti-fertility agent (rat, orl, 75mg/(kg·d), pregnant rate = 6/10); platelet aggregation inhibitor; antihypertensive (relaxes aortal contraction induced by K<sup>+</sup> and Ca<sup>2+</sup>, ID<sub>50</sub>  $\approx$  25 $\mu$ mol/L); coronary vasodilator (calcium selective antagonist). Source: BAI XIAN PI *Dictamnus dasycarpus*, KU LIAN PI *Melia azedarach*. Ref: 6, 1644, 1645, 1646.



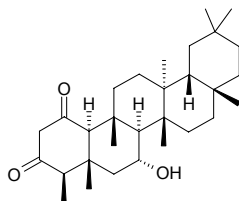


**7946 Friedelan-1,3-dion-24-al**

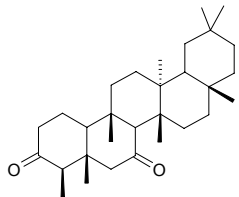
$C_{30}H_{46}O_3$  (454.70). Source: SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*]. Ref: 6.

**7947 Friedelan-1,3-dion-7 $\alpha$ -ol**

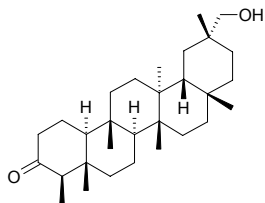
$C_{30}H_{48}O_3$  (456.72). Source: SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*]. Ref: 6.

**7948 Friedelane-3,7-dione**

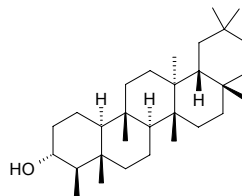
$C_{30}H_{48}O_2$  (440.72). White powder, mp 286°C. Source: *Drypetes molunduana* (stem). Ref: 3989.

**7949 Friedelane-3-one-29-ol**

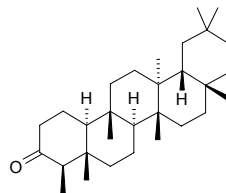
$C_{30}H_{50}O_2$  (442.73). Pharm: DPPH scavenger inactive (for 40  $\mu$ mol/L DPPH radical,  $SC_{50} > 40 \mu$ mol/L)<sup>[4378]</sup>. Source: SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*] (stem). Ref: 4378.

**7950 Friedelan-3 $\alpha$ -ol**

[5085-72-3]  $C_{30}H_{52}O$  (428.75). mp 302~304°C. Pharm: Antifungal; anti-inflammatory. Source: TIAO JING CAO *Euonymus japonicus*, DONG FENG CAI *Doellingeria scaber* [Syn. *Aster scaber*], HE AN ZE LAN *Eupatorium riparium*, HUO YANG LE *Euphorbia antiquorum*, LIANG YE RONG *Ficus nitida*, MEI LI YIN BEI TENG *Argyrea speciosa*, QIU FENG MU *Bischofia javanica* [Syn. *Bischofia trifoliata*], TIAN LAN ZE LAN *Eupatorium azureum*, XUE TONG *Macaranga tanarius*, YANG YE YIN BEI TENG *Argyrea populifolia*. Ref: 6, 658.

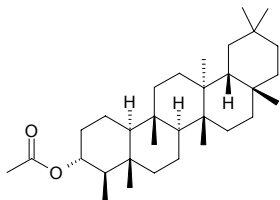
**7951 Friedelan-3-one**

Friedelin [559-74-0]  $C_{30}H_{50}O$  (426.73). Colorless thin acicular crystals, mp 257~264°C,  $[\alpha]_D^{28} = -14.1^\circ$  ( $c = 0.07$ ,  $CHCl_3$ ). Pharm: Anti-inflammatory; NFAT transcription factor inhibitor inactive ( $IC_{50} > 50 \mu$ mol/L, positive control Cyclosporin A,  $IC_{50} = (0.31 \pm 0.01) \mu$ mol/L)<sup>[4511]</sup>; cytotoxic ( $P_{388}$ ,  $ED_{50} = 14.61 \mu$ g/mL, control Mithramycin,  $ED_{50} = 0.58 \mu$ g/mL; A549,  $ED_{50} = 30.72 \mu$ g/mL, Mithramycin,  $ED_{50} = 0.073 \mu$ g/mL; HT29,  $ED_{50} = 17.30 \mu$ g/mL, Mithramycin,  $ED_{50} = 0.076 \mu$ g/mL)<sup>[5421]</sup>. Source: BIAN TAO *Mangifera persiciformis*, CHAO XIAN LUO WAN *Gymnaster koraiensis* (leaf), CHUAN DANG SHEN *Codonopsis tangshen*, CHUAN LI GUO *Pyrus pashia*, DA FEI YANG CAO *Euphorbia hirta*, DANG SHEN *Codonopsis pilosula* (dried root: mean content = 0.0095%<sup>[5508]</sup>), HAI TANG GUO *Calophyllum inophyllum* (root cortex and nut), HEI XIAN TIAO TENG HUANG *Garcinia nigrolineata* (leaf)<sup>[4735]</sup>, HUANG HUA HAO *Artemisia annua*, HUI BAO HAO *Artemisia roxburgiana*, HUO XIANG *Agastache rugosus*, KUAI JING MA LI JIN *Asclepias tuberosa*, KUO JIA HE HUAN *Albizia lebbek*, LONG XU CAO *Poa sphondylodes*, LU BIAN QING *Clerodendron cyrtophyllum*, MANG GUO *Mangifera indica*, MAO LIAN HAO *Artemisia vestita*, MENG GU LI *Quercus mongolica*, MO ZHI JIAO GU CUI *Casearia membranacea* (stem), NAN ZHU ZI *Vaccinium bracteatum*, QIU HUA DANG SHEN *Codonopsis subglobosa*, QUE MEI TENG *Sageretia theezans* [Syn. *Sageretia thea*], QUN DAI CAI *Undaria pinnatifida*, RI BEN HUANG BAI *Phellodendron japonicum* (leaf), SHI LIU PI *Punica granatum*, SU HUA DANG SHEN *Codonopsis pilosula* var. *modesta* [Syn. *Codonopsis modesta*] (dried root: mean content = 0.0162%<sup>[5508]</sup>), TAI BAI HUA *Cladonia stellaris* [Syn. *Cladonia alpestris*], TUN XING GUO *Pygeum topengii*, XIAO SHE ZI WAN *Aster albescens*, YA ZHI CAO *Commelina communis*, ZI WAN *Aster tataricus*, occurs in many plants. Ref: 2, 447, 474, 503, 505, 515, 550, 572, 600, 611, 658, 660, 3866, 4502, 4511, 4735, 5421, 5501, 5508.

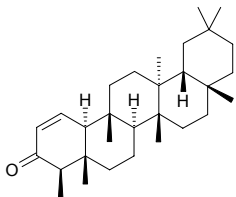


**7952 Friedelan-3 $\alpha$ -yl acetate**

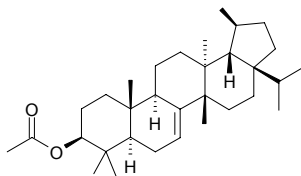
$C_{32}H_{54}O_2$  (470.79). mp 317~319°C. Source: QIU FENG MU *Bischofia javanica* [Syn. *Bischofia trifoliata*]. Ref: 6.

**7953 1-Friedelen-3-one**

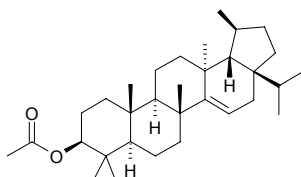
$C_{30}H_{48}O$  (424.72). mp 262~263°C. Source: SUO LAMU *Salacia prinoides* [Syn. *Salacia chinensis*]. Ref: 6.

**7954 D:C-Friedomadeir-7-en-3 $\beta$ -yl acetate**

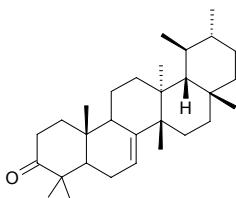
$C_{32}H_{52}O_2$  (468.77). White granular crystals, mp 213~214°C,  $[\alpha]_D = -61.5^\circ$  ( $c = 0.75$ ,  $CHCl_3$ ). Source: YOU AN DI JIN *Euphorbia stygiana*. Ref: 3383.

**7955 D-Friedomadeir-14-en-3 $\beta$ -yl acetate**

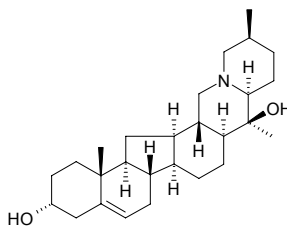
$C_{32}H_{52}O_2$  (468.77). White powder, mp 220~221°C,  $[\alpha]_D = +23.4^\circ$  ( $c = 0.6$ ,  $CHCl_3$ ). Source: YOU AN DI JIN *Euphorbia stygiana*. Ref: 3383.

**7956 D:C-Friedo-urs-7-en-3-one**

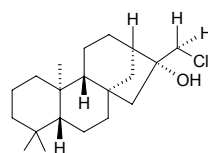
$C_{30}H_{48}O$  (424.72). Colorless needles, mp 212~214°C,  $[\alpha]_D^{25} = -4.1^\circ$  ( $c = 0.4$ ,  $CHCl_3$ ). Pharm: Antimutagenic (*E. coli* PQ37, antigenotoxicity test, for mutagen MNNG shows 20% reduction of induction factor, for mutagen NQO, shows 25% reduction of induction factor)<sup>[4459]</sup>. Source: ZAO JIA CI *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (thorn). Ref: 4459.

**7957 Fritillarizine**

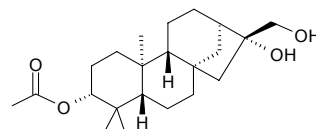
[76733-86-3]  $C_{27}H_{43}NO_2$  (413.65). mp 141.5~143.0°C,  $[\alpha]_D = -18.6^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). Source: ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. Ref: 2201.

**7958 Fritillaziebinol**

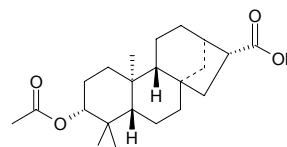
*ent*-Kauran-16 $\beta$ -hydroxy-17-chloride  $C_{20}H_{23}ClO$  (324.94). Colorless square crystals, mp 153~154°C. Source: ZI HUA E BEI BEI MU *Fritillaria ebeiensis* var. *purpurea*. Ref: 833.

**7959 Fritillebeinol**

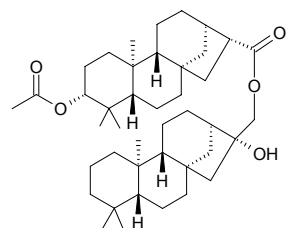
*ent*-3 $\beta$ -Acetoxy-kauran-16 $\beta$ ,17-diol  $C_{22}H_{36}O_4$  (364.53). Colorless acicular crystals, mp 163~164°C. Source: E BEI BEI MU *Fritillaria ebeiensis*. Ref: 827.

**7960 Fritillebic acid**

$C_{22}H_{34}O_4$  (362.50). mp 235~237°C,  $[\alpha]_D^{28} = -60.6^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). Source: HU BEI BEI MU *Fritillaria hupehensis*. Ref: 2182.

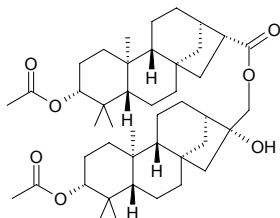
**7961 Fritillebin A**

$C_{42}H_{66}O_5$  (650.99). mp 237~239°C,  $[\alpha]_D^{28} = -61.7^\circ$  ( $c = 1.3$ ,  $CHCl_3$ ). Source: E BEI BEI MU *Fritillaria ebeiensis*. Ref: 578, 2182.

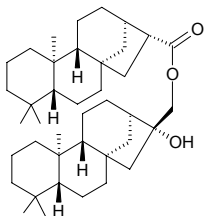


**7962 Fritillebin B**

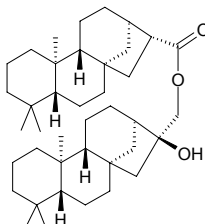
$C_{44}H_{68}O_7$  (709.03). mp 243~245°C,  $[\alpha]_D^{28} = -61.7^\circ$  ( $c = 0.4$ ,  $CHCl_3$ ). Source: E BEI BEI MU *Fritillaria ebeiensis*. Ref: 578, 2182.

**7963 Fritillebin C**

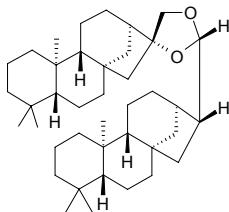
$C_{40}H_{64}O_3$  (592.95). mp 210~212°C,  $[\alpha]_D^{25} = -95.1^\circ$  ( $c = 0.25$ ,  $CHCl_3$ ). Source: E BEI BEI MU *Fritillaria ebeiensis*. Ref: 584, 2182.

**7964 Fritillebin D**

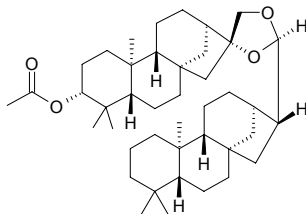
$C_{40}H_{64}O_3$  (592.95). mp 231~233°C,  $[\alpha]_D^{25} = -86.4^\circ$  ( $c = 0.16$ ,  $CHCl_3$ ). Source: E BEI BEI MU *Fritillaria ebeiensis*. Ref: 584, 2182.

**7965 Fritillebinide A**

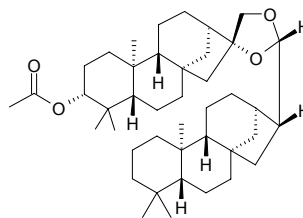
*ent*-Kauran-16 $\beta$ ,17-acetal *ent*-16 $\beta$ -kauran-17(*S*)-aldehyde  $C_{40}H_{64}O_2$  (576.95). Source: ZI HUA E BEI BEI MU *Fritillaria ebeiensis* var. *purpurea*. Ref: 682, 906.

**7966 Fritillebinide B**

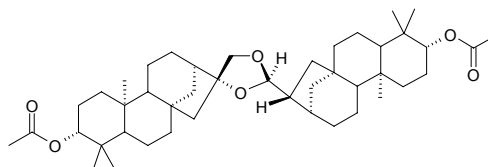
$C_{42}H_{66}O_4$  (634.99). Source: ZI HUA E BEI BEI MU *Fritillaria ebeiensis* var. *purpurea*. Ref: 906.

**7967 Fritillebinide C**

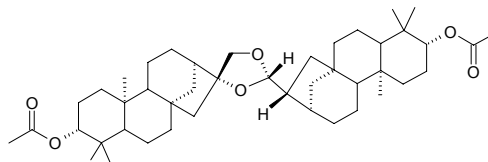
$C_{42}H_{66}O_4$  (634.99). Source: E BEI BEI MU *Fritillaria ebeiensis*. Ref: 906.

**7968 Fritillebinide D**

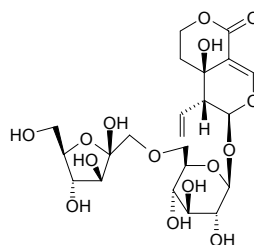
$C_{44}H_{68}O_6$  (693.03). Colorless needles (EtOAc), mp 247~249°C. Source: ZI HUA E BEI BEI MU *Fritillaria ebeiensis* var. *purpurea*. Ref: 4806.

**7969 Fritillebinide E**

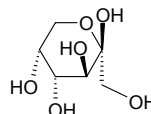
$C_{44}H_{68}O_6$  (693.03). Colorless needles (EtOAc), mp 247~248°C. Source: ZI HUA E BEI BEI MU *Fritillaria ebeiensis* var. *purpurea*. Ref: 4806.

**7970 6'-O- $\beta$ -D-Fructofuranosylswertiamarin**

$C_{22}H_{32}O_{15}$  (536.49). Amorphous powder,  $[\alpha]_D^{25} = -80.2^\circ$  ( $c = 0.08$ , MeOH). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.

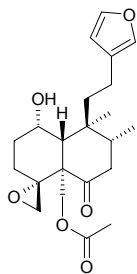
**7971 Fructose**

$C_6H_{12}O_6$  (180.16). mp *L* (+) 101~103°C, *D*(-) 102~104°C (dec). Pharm: Provides energy and restores body fluid (for patients with diabetes and hepatitis). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], DANG SHEN *Codonopsis pilosula*, YAO YONG PU GONG YING *Taraxacum officinale*, XI SHU *Camptotheca acuminata*. Ref: 2, 660, 4097.

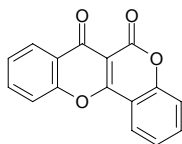


**7972 Fruticolone**

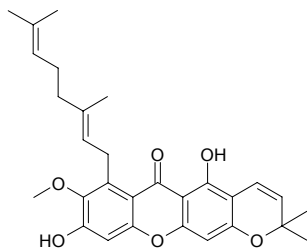
$C_{22}H_{30}O_6$  (390.48). **Pharm:** Insect antifeedant (fifth instar larvae of *Spodoptera littoralis*, dual-choice feeding assays, dose =  $10\mu\text{g}/\text{cm}^2$ ,  $\text{FR}_{50} = 0.69 \pm 0.11$ ). **Source:** GUAN CONG XIANG KE KE *Teucrium fruticans*. **Ref:** 3761.

**7973 Frutinone A**

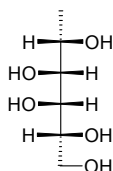
[38210-27-4]  $C_{16}H_8O_4$  (264.24). **Pharm:** Antifungal (*Cladosporium cucumerinum*). **Source:** GUAN MU YUAN ZHI *Polygala fruticosa*. **Ref:** 658.

**7974 Fucaxanthone A**

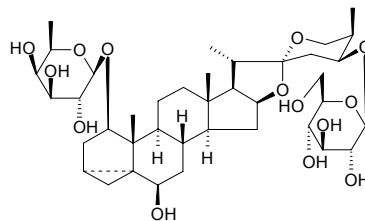
$C_{29}H_{32}O_6$  (476.57). **Pharm:** Antioxidant (DPPH scavenger,  $\text{IC}_{50} > 200\mu\text{mol}/\text{L}$ , control BHT,  $\text{IC}_{50} = 5.10\mu\text{g}/\text{mL}$ ; crude latex of *Garcinia cowa*,  $\text{IC}_{50} = 13.20\mu\text{g}/\text{mL}$ ). **Source:** YUN NAN SHAN ZHU ZI *Garcinia cowa* (latex). **Ref:** 5281.

**7975 L-Fucitol**

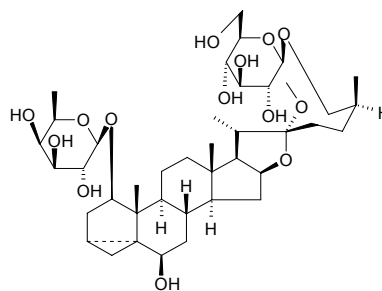
$C_6H_{14}O_5$  (166.18). Amorphous powder,  $[\alpha]_D^{21} = -5^\circ$  ( $c = 0.1$ ,  $\text{H}_2\text{O}$ ). **Source:** GE LU ZI *Carum carvi*. **Ref:** 1926.

**7976 (24S,25R)-1β-[(β-D-Fucopyranosyl)oxy]-6β-hydroxy-3α,5α-cyclospirostan-24-yl β-D-glucopyranoside**

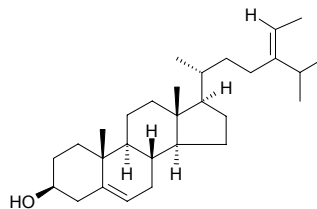
$C_{39}H_{62}O_{14}$  (754.92). Amorphous solid,  $[\alpha]_D^{26} = -90.0^\circ$  ( $c = 0.10$ , MeOH). **Source:** DUO ZHI LONG XUE SHU *Dracaena surculosa* (whole herb). **Ref:** 4216.

**7977 (25S)-1β-[(β-D-Fucopyranosyl)oxy]-6β-hydroxy-22a-methoxy-3α,5α-cyclofurostan-26-yl β-D-glucopyranoside**

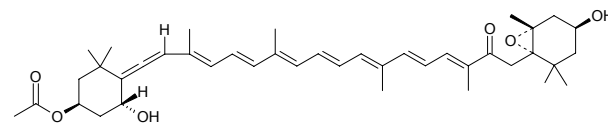
$C_{40}H_{66}O_{14}$  (770.96). Amorphous solid,  $[\alpha]_D^{26} = -56.0^\circ$  ( $c = 0.10$ , MeOH). **Source:** DUO ZHI LONG XUE SHU *Dracaena surculosa* (whole herb). **Ref:** 4216.

**7978 Fucosterol**

Stigmasta-5,24(28)*E*-dien-3-ol [17605-67-3]  $C_{29}H_{48}O$  (412.71). mp  $124^\circ\text{C}$ . **Pharm:** Antihypercholesterolemic (reduces the level of cholesterol in serum); antithrombotic; ACE inhibitor (endothelial cells, inhibits synthesis of glucocorticoid receptor). **Source:** QUN DAI CAI *Undaria pinnatifida*, SHUI LONG GU *Polypodium niponicum*, YE ZI YOU *Cocos nucifera*. **Ref:** 6, 660, 1601, 1602, 1603.

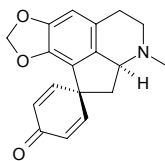
**7979 Fucoxanthin**

[3351-86-8]  $C_{41}H_{56}O_6$  (644.90). **Pharm:** Antineoplastic (mus, inhibits occurrence of cutaneous carcinoma and duodenum carcinoma). **Source:** FAN QIE *Lycopersicon esculentum*. **Ref:** 1521, 1582.

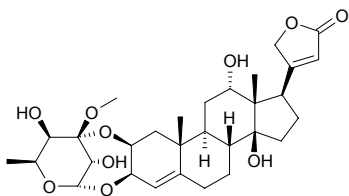


**7980 Fugapavine**

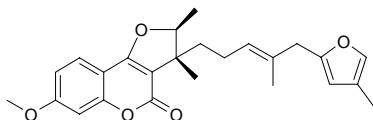
Mecambrine [1093-07-8]  $C_{18}H_{17}NO_3$  (295.34). **Pharm:** Eclamptogenic (high dose); increases blood pressure (animal model); slows heart rate (animal model); respiratory stimulant (animal model);  $LD_{50}$  (mus) = 4.1 mg/kg. **Source:** CHANG GUO YING SU *Papaver dubium*, WEI ER SHI LV RONG HAO *Meconopsis cambrica*, YI XIAN YING SU *Papaver fugax*. **Ref:** 658.

**7981 Fugaxin**

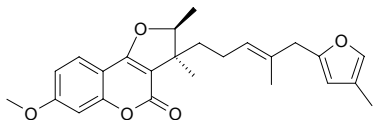
12 $\alpha$ ,14 $\beta$ -Dihydroxy-2 $\alpha$ ,3 $\beta$ -(tetrahydro-3',5'-dihydroxy-4'-methoxy-6'-methyl-2H-pyran-2',4'-diylbisoxo)-card-4,20-dienolide  $C_{30}H_{42}O_{10}$  (562.66). Whitish amorphous. **Source:** YI XIAN HAI CONG *Urginea fugax* (bulb). **Ref:** 3871.

**7982 Fukanefuromarin E**

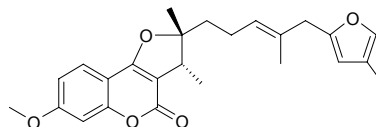
2,3-Dihydro-7-methoxy-2S\*,3R\*-dimethyl-3-[4-methyl-5-(4-methyl-2-furyl)-3(E)-pentenyl]-furo[3,2-c]coumarin  $C_{25}H_{28}O_5$  (408.50). Colorless oil,  $[\alpha]_D^{23} = -2.0^\circ$  ( $c = 0.36$ , MeOH). **Pharm:** NO production inhibitor (macrophage-like cell line RAW264.7 activated by LPS/IFN- $\gamma$ ,  $IC_{50} = (29.0 \pm 1.0) \mu\text{mol/L}$ ); inhibits the inducible nitric oxide synthase (iNOS) gene expression (LPS/IFN- $\gamma$  treatment increased the level of iNOS mRNA expression, and the compound inhibits this increase, dose-dependent manner); cytotoxic inactive (MTT assay, 3~100  $\mu\text{mol/L}$ , did not demonstrate any significant cytotoxicity upon LPS/IFN- $\gamma$  treatment for 24h.). **Source:** FU KANG A WEI GEN *Ferula fukanensis*. **Ref:** 2574.

**7983 Fukanefuromarin F**

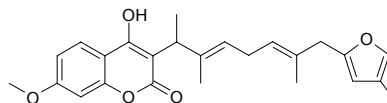
2,3-Dihydro-7-methoxy-2R\*,3R\*-dimethyl-3-[4-methyl-5-(4-methyl-2-furyl)-3(E)-pentenyl]-furo[3,2-c]coumarin  $C_{25}H_{28}O_5$  (408.50). Colorless oil,  $[\alpha]_D^{23} = +41.7^\circ$  ( $c = 0.14$ , MeOH). **Pharm:** NO production inhibitor (macrophage-like cell line RAW264.7 activated by LPS/IFN- $\gamma$ ,  $IC_{50} = (30.7 \pm 0.9) \mu\text{mol/L}$ ); cytotoxic inactive (MTT assay, 3~100  $\mu\text{mol/L}$ , did not demonstrate any significant cytotoxicity upon LPS/IFN- $\gamma$  treatment for 24h.). **Source:** FU KANG A WEI GEN *Ferula fukanensis*. **Ref:** 2574.

**7984 Fukanefuromarin G**

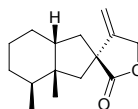
2,3-Dihydro-7-methoxy-2R\*,3R\*-dimethyl-2-[4-methyl-5-(4-methyl-2-furyl)-3(E)-pentenyl]-furo[3,2-c]coumarin  $C_{25}H_{28}O_5$  (408.50). Colorless oil,  $[\alpha]_D^{23} = -8.9^\circ$  ( $c = 0.18$ , MeOH). **Pharm:** NO production inhibitor (macrophage-like cell line RAW264.7 activated by LPS/IFN- $\gamma$ ,  $IC_{50} = (27.3 \pm 2.3) \mu\text{mol/L}$ ); cytotoxic inactive (MTT assay, 3~100  $\mu\text{mol/L}$ , did not demonstrate any significant cytotoxicity upon LPS/IFN- $\gamma$  treatment for 24h.). **Source:** FU KANG A WEI GEN *Ferula fukanensis*. **Ref:** 2574.

**7985 Fukanemarin B**

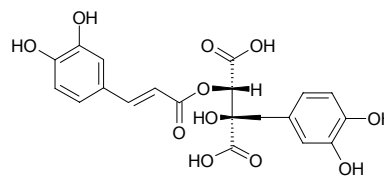
4-Hydroxy-7-methoxy-3-[1,2,6-trimethyl-7-(4-methyl-2-furyl)-hepta-2(E),5(E)-dienyl]-coumarin  $C_{25}H_{28}O_5$  (408.50). Yellow oil,  $[\alpha]_D^{23} = \pm 0^\circ$  ( $c = 0.23$ , MeOH). **Pharm:** NO production inhibitor (macrophage-like cell line RAW264.7 activated by LPS/IFN- $\gamma$ ,  $IC_{50} = (30.2 \pm 1.7) \mu\text{mol/L}$ ); inhibits the inducible nitric oxide synthase (iNOS) gene expression (LPS/IFN- $\gamma$  treatment increased the level of iNOS mRNA expression, and the compound inhibits this increase, dose-dependent manner); cytotoxic inactive (MTT assay, 3~100  $\mu\text{mol/L}$ , did not demonstrate any significant cytotoxicity upon LPS/IFN- $\gamma$  treatment for 24h.). **Source:** FU KANG A WEI GEN *Ferula fukanensis*. **Ref:** 2574.

**7986 Fukinanolide**

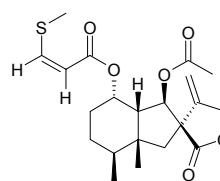
[19906-72-0]  $C_{15}H_{22}O_2$  (234.34). mp 80.5~80.6°C. **Source:** FENG DOU CAI *Petasites japonicus*. **Ref:** 6.

**7987 Fukinolic acid**

[50982-40-6]  $C_{20}H_{18}O_{11}$  (434.36). **Source:** FENG DOU CAI *Petasites japonicus*. **Ref:** 6.

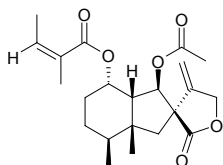
**7988 S-Fukinolide**

[18456-03-6]  $C_{21}H_{28}O_6S$  (408.52). mp 207°C. **Source:** FENG DOU CAI *Petasites japonicus*. **Ref:** 6.

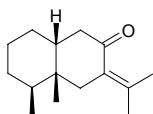


**7989 Fukinolide**

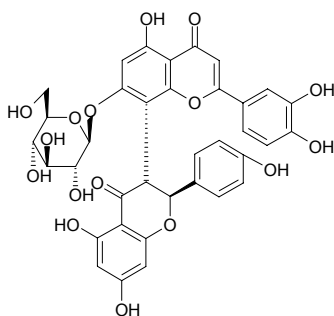
[18455-98-6] C<sub>22</sub>H<sub>30</sub>O<sub>6</sub> (390.48). mp 101~102°C. Source: FENG DOU CAI *Petasites japonicus*. Ref: 6.

**7990 Fukinone**

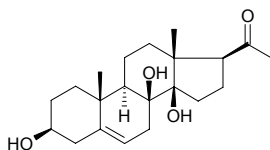
[19593-06-7] C<sub>15</sub>H<sub>24</sub>O (220.36). bp 97°C/0.8mmHg. Source: FENG DOU CAI *Petasites japonicus*. Ref: 6.

**7991 Fukugiside**

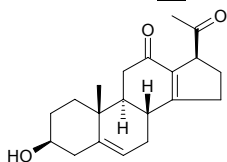
[29082-55-1] C<sub>36</sub>H<sub>30</sub>O<sub>16</sub> (718.63). mp 242~243°C (dec). Pharm: Antioxidant (DPPH radical scavenger, 10μmol/L, ScRt = 56%, IC<sub>50</sub> = 11.40μmol/L; control BHT, 10μmol/L, ScRt = 43%, IC<sub>50</sub> = 19.00μmol/L)<sup>[4422]</sup>. Source: SHAN ZHU ZI *Garcinia multiflora*, TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). Ref: 6, 4422.

**7992 Fukujusone**

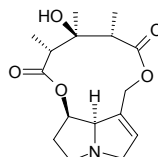
3β,8β,14β-Trihydroxypregn-5-en-20-one [25276-16-8] C<sub>21</sub>H<sub>32</sub>O<sub>4</sub> (348.49). mp 224~227°C. Source: FU SHOU CAO *Adonis amurensis*. Ref: 6.

**7993 Fukujusonone**

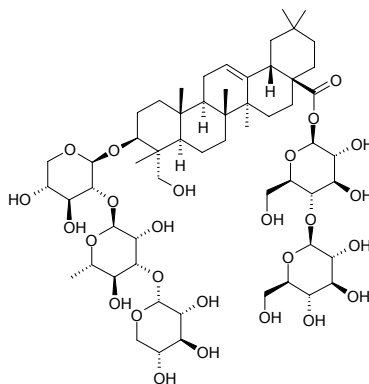
[26708-71-4] C<sub>20</sub>H<sub>26</sub>O<sub>3</sub> (314.43). mp 88~90°C. Source: FU SHOU CAO *Adonis amurensis*. Ref: 6.

**7994 Fulvine**

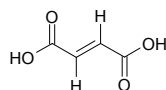
[6029-87-4] C<sub>16</sub>H<sub>23</sub>NO<sub>5</sub> (309.37). Prismatic crystals (acetone), mp 212~213°C, [α]<sub>D</sub><sup>20</sup> = -50.8° (c = 1, chloroform); hydrochloride: colorless prismatic crystals, mp 285°C (dec); bitter acid salt: yellow acicular crystals, mp 185°C (dec). Pharm: Antineoplastic (rat, Walker carcinoma); toxic (hepatic and pulmonary toxicity); mutagen (*drosophila*); similar action with narceine (rat and gpg, ileum). Source: AN HUANG ZHU SHI DOU *Crotalaria fulva*, MA DU LA ZHU SHI DOU *Crotalaria madurensis*, YUAN ZHUI ZHU SHI DOU *Crotalaria paniculata*, ZOU BO ZHUANG ZHU SHI DOU *Crotalaria crispata*. Ref: 658.

**7995 Fulvotomentoside A**

C<sub>58</sub>H<sub>94</sub>O<sub>26</sub> (1207.38). White thin acicular crystals, mp 215~217°C, [α]<sub>D</sub><sup>27.5</sup> = -14.9° (c = 0.98, MeOH). Source: HUANG HE MAO REN DONG *Lonicera fulvotomentosa*. Ref: 126.

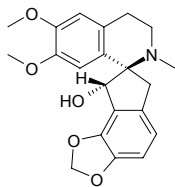
**7996 Fumaric acid**

(E)-2-Butenedioic acid [110-17-8] C<sub>4</sub>H<sub>4</sub>O<sub>4</sub> (116.07). mp 250~260°C. Pharm: Analgesic; antibacterial; antineoplastic; anti-electroshock; antitussive. Source: DA CHE QIAN *Plantago major*, GAN ZHE *Saccharum sinensis*, HUANG HAI YING SU *Glaucium flavum*, HUO YANG LE *Euphorbia antiquorum*, JI CAI *Capsella bursa-pastoris*, JIN SHUA BA *Cladonia fallax*, JIU JIE CHA *Sarcandra glabra* [Syn. *Chloranthus glaber*] (dried whole herb: content scope of 6 origins = 0.052%~0.183%, mean content = 0.122%<sup>[5508]</sup>), LU SHAN SHI WEI *Pyrrosia sheareri*, MAI JIA GONG *Lithospermum arvense*, NIU ER FENG ZI *Daphniphyllum calycinum*, PING GUO HAI TANG *Malus domestica*, SHI RUI *Cladonia rangiferina*, WAN DOU *Pisum sativum*, WU HUA GUO *Ficus carica*, XIANG RI KUI ZI *Helianthus annuus*, YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *yanhusuo*], YAO YONG QIU GUO ZI JIN *Fumaria officinalis*, YI ZHU QIAN MA *Urtica dioica*, YUN NAN FEI SHU *Torreya yunnanensis* (leaf and twig), ZI ZHI *Ganoderma japonicum* [Syn. *Ganoderma sinense*], occurs in many plants. Ref: 6, 658, 660, 4707, 5501, 5508.

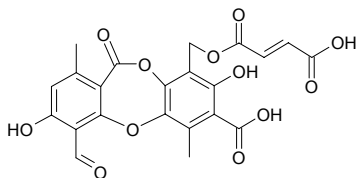


**7997 Fumaricine**

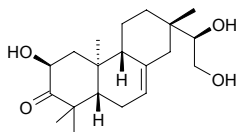
[24181-77-9] C<sub>21</sub>H<sub>23</sub>NO<sub>5</sub> (369.42). **Pharm:** Used in treatment of skin disease, hepatitis, and inflammation (using the source plant YAO YONG QIU GUO ZI JIN *Fumaria officinalis*). **Source:** YAO YONG QIU GUO ZI JIN *Fumaria officinalis*. **Ref:** 658.

**7998 Fumarprotocetraric acid**

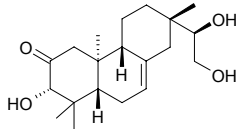
[489-50-9] C<sub>22</sub>H<sub>16</sub>O<sub>12</sub> (472.37). mp 250–260°C. **Pharm:** Cytotoxic (L1210, IC<sub>50</sub> = (82.3±12.3)μg/mL, control Etoposide, IC<sub>50</sub> = (0.3±0.15)μg/mL; 3LL, IC<sub>50</sub> = (75.9±9.7)μg/mL, Etoposide, IC<sub>50</sub> = (2.6±0.8)μg/mL; DU145, IC<sub>50</sub> > 100μg/mL, Etoposide, IC<sub>50</sub> = (0.9±0.2)μg/mL; MCF7, IC<sub>50</sub> > 100μg/mL, Etoposide, IC<sub>50</sub> = (12.2±0.5)μg/mL; K562, IC<sub>50</sub> > 100μg/mL, Etoposide, IC<sub>50</sub> = (2.1±1.3)μg/mL; U251, IC<sub>50</sub> > 100μg/mL, Etoposide, IC<sub>50</sub> = (0.28±0.06)μg/mL)<sup>[5027]</sup>. **Source:** JIN SHUA BA *Cladonia fallax*, SHI RUI *Cladonia rangiferina*, ZONG JUAN SHI RUI *Cladonia convoluta*. **Ref:** 6, 5027.

**7999 Fumotoshidin A**

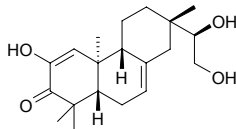
[89354-44-9] C<sub>20</sub>H<sub>32</sub>O<sub>4</sub> (336.48). **Source:** BIAN YUAN LIN GAI JUE *Microlepis marginata*. **Ref:** 1538.

**8000 Fumotoshidin B**

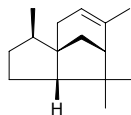
[89354-43-8] C<sub>20</sub>H<sub>32</sub>O<sub>4</sub> (336.48). **Source:** BIAN YUAN LIN GAI JUE *Microlepis marginata*. **Ref:** 1538.

**8001 Fumotoshidin C**

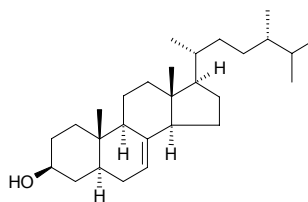
[89354-42-7] C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). **Source:** BIAN YUAN LIN GAI JUE *Microlepis marginata*. **Ref:** 1538.

**8002 α-Funebrene**

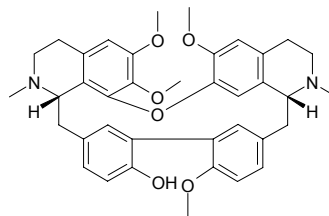
[50894-66-1] C<sub>15</sub>H<sub>24</sub> (204.36). **Source:** BAI SHU YE *Cupressus funebris*, DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. **Ref:** 2.

**8003 Fungisterol**

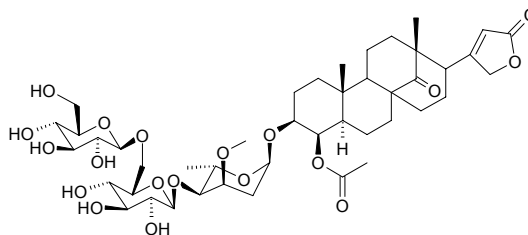
Ergost-7-en-3-ol [53260-54-1] C<sub>28</sub>H<sub>48</sub>O (400.69). mp 152°C. **Source:** XIANG XUN *Lentinus edodes*. **Ref:** 6.

**8004 Funiferine**

C<sub>38</sub>H<sub>42</sub>N<sub>2</sub>O<sub>6</sub> (622.77). **Pharm:** Antitrypanosomal (inhibits trypanosome form of *Trypanosoma cruzi*, strain Y, IC<sub>50</sub> = 29.7μg/mL, IC<sub>90</sub> = 88.2μg/mL); antimalarial (*Plasmodium falciparum* D6, LC<sub>50</sub> = 114.0ng/mL, SI = 92; *Plasmodium falciparum* W2, LC<sub>50</sub> = 183.3ng/mL, SI = 57); cytotoxic (KB, LC<sub>50</sub> = 10500ng/mL). **Source:** *Guatteria boliviana* (stem cortex). **Ref:** 3976.

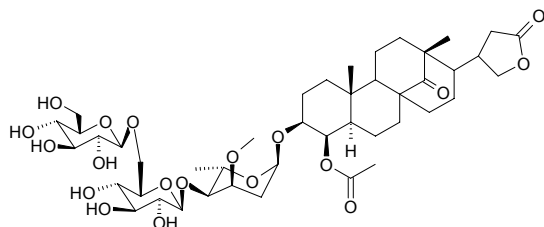
**8005 Funingenoside A**

(8*R*)-3*β*,4*β*-Dihydroxy-yl-14-oxo-5*α*-15(14→8)-abeo-card-20(22)-enolide C<sub>44</sub>H<sub>66</sub>O<sub>19</sub> (899.01). Colorless needles (MeOH), mp 261–265°C, [α]<sub>D</sub><sup>26</sup> –53.7° (*c* = 0.87, MeOH). **Source:** FU NING TENG *Parepignym funingense* (root: yield = 0.0026%dw). **Ref:** 4701.

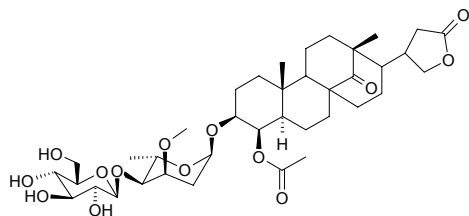


**8006 Funingenoside B**

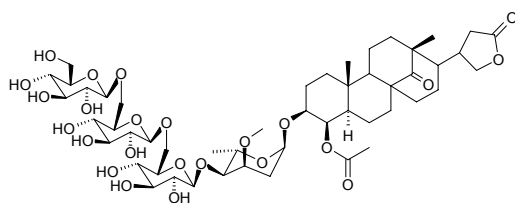
(8*R*)-4β-Acetoxy-3β-[(*O*-β-*D*-glucopyranosyl-(1→6)-*O*-β-*D*-glucopyranosyl-(1→4)-α-*L*-cymaropyranosyl)-oxy]-14-oxo-5α-15-(14→8)-abeo-card-20(22)-dihydroenolide C<sub>44</sub>H<sub>68</sub>O<sub>19</sub> (901.02). White powder, mp 271~275°C,  $[\alpha]_D^{26} = -73.9^\circ$  ( $c = 0.43$ , MeOH). Source: FU NING TENG *Parepigynum funingense* (root: yield = 0.0073%dw). Ref: 4701.

**8007 Funingenoside C**

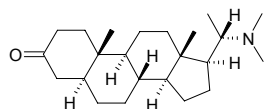
(8*R*)-4β-Acetoxy-3β-[(*O*-β-*D*-glucopyranosyl-(1→4)-α-*L*-cymaropyranosyl)-oxy]-14-oxo-5α-15-(14→8)-abeo-card-20(22)-dihydroenolide C<sub>38</sub>H<sub>58</sub>O<sub>14</sub> (738.88). White powder, mp 256~259°C,  $[\alpha]_D^{13} = -75.9^\circ$  ( $c = 0.22$ , MeOH). Source: FU NING TENG *Parepigynum funingense* (root: yield = 0.0014%dw). Ref: 4701.

**8008 Funingenoside D**

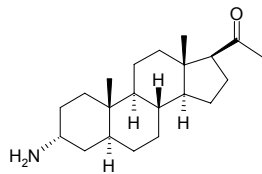
(8*R*)-4β-Acetoxy-3β-[(*O*-β-*D*-glucopyranosyl-(1→6)-*O*-β-*D*-glucopyranosyl-(1→6)-*O*-β-*D*-glucopyranosyl-(1→4)-α-*L*-cymaopyranosyl)-oxy]-14-oxo-5α-15-(14→8)-abeo-card-20(22)-dihydroenolide C<sub>50</sub>H<sub>78</sub>O<sub>24</sub> (1063.16). White powder, mp 248~253°C,  $[\alpha]_D^{13} = -66.0^\circ$  ( $c = 0.67$ , MeOH). Source: FU NING TENG *Parepigynum funingense* (root: yield = 0.00035%dw). Ref: 4701.

**8009 Funtumafrine C**

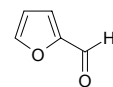
(2*S*)-20-(*N,N*-dimethylamino)-5α-pregna-3-one C<sub>23</sub>H<sub>39</sub>NO (345.57). White crystalline solid (CHCl<sub>3</sub>), mp 169~170°C,  $[\alpha]_D^{25} = +50^\circ$  ( $c = 0.06$ , CHCl<sub>3</sub>). Pharm: BChE inhibitor (horse serum BChE, IC<sub>50</sub> = (6.56±0.12)μmol/L, control Eserine, IC<sub>50</sub> = (0.86±0.01)μmol/L); AChE inhibitor (electric eel AChE, IC<sub>50</sub> = (45.75±1.12)μmol/L, control Eserine, IC<sub>50</sub> = (0.041±0.001)μmol/L). Source: YUN NAN YE SHAN HUA *Sarcococca coriacea* [Syn. *Sarcococca wallichii*] (leaf). Ref: 4241.

**8010 Funtumine**

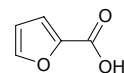
[474-45-3] C<sub>21</sub>H<sub>35</sub>NO (317.52). Prismatic crystals (ethyl acetate), mp 126°C,  $[\alpha]_D = +95^\circ$  ( $c = 1.7$ , chloroform). Pharm: Antipyretic; local anesthetic; antihypertensive; promotes respiration; vasodilator. Source: GANG GUO HE ZHI XIE MU *Holarrhena congolensis*, SI JIAO SHU *Funtumia elastica*, TUI RE ZHI XIE MU *Holarrhena febrifuga*. Ref: 658.

**8011 2-Furaldehyde**

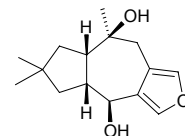
Furan-2-carboxaldehyde [98-01-1] C<sub>5</sub>H<sub>4</sub>O<sub>2</sub> (96.09). bp 162°C. Source: CANG ZHU *Atractylodes lancea*, HONG CHE ZHOU CAO *Trifolium pratense*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], KONG SHI CHUN *Ulva pertusa*, LUO LE *Ocimum basilicum*, SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*], SHUI SONG *Codium fragile*, YIN CHEN HAO *Artemisia capillaris*, ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*], ZI CAI *Porphyra tenera*. Ref: 2, 6, 660.

**8012 2-Furancarboxylic acid**

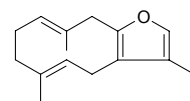
Pyromucic acid [88-14-2] C<sub>5</sub>H<sub>4</sub>O<sub>3</sub> (112.09). Leaflets (H<sub>2</sub>O), mp 133~134°C, bp 230~232°C, bp 141~144°C/20mmHg. Source: BAI FAN DOU *Phaseolus vulgaris*, DANG SHEN *Codonopsis pilosula*, JIAN WEI YU *Alocasia cucullata* [Syn. *Arum cucullatum*], QIAN LI GUANG *Senecio scandens* [Syn. *Senecio chinensis*], SHI YE *Diospyros kaki*, fungus *Epicoccum* sp. Ref: 2, 660, 1521, 2721, 2980, 5445.

**8013 Furanliol**

C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). Source: MEI WEI HONG GU *Russula delicata* (sporocarp). Ref: 4374.

**8014 Furanodiene**

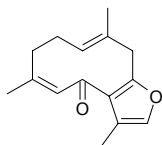
Isofuranodiene [19912-61-9] C<sub>15</sub>H<sub>20</sub>O (216.38). mp 44~45°C. Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (67.0±1.4)%), control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%,  $p < 0.01$ )<sup>[4150]</sup>. Source: JI JI *Chloranthus serratus*, JIN SU LAN *Chloranthus spicatus*, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*], YIN XIAN CAO *Chloranthus japonicus*. Ref: 6, 660, 4150.



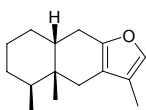


**8015 Furanodienone**

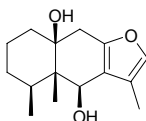
Isofuranodienone [24268-42-6] C<sub>15</sub>H<sub>18</sub>O<sub>2</sub> (230.31). mp 89.5–90.5°C; 70–71°C. **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (64.6±2.6)%, control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%, *p*<0.01)<sup>[4150]</sup>. **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 6, 660, 4150.

**8016 Furanocremophilane**

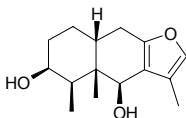
[6750-13-6] C<sub>15</sub>H<sub>22</sub>O (218.34). bp 148°C/16mmHg. **Source:** FENG DOU CAI *Petasites japonicus*. **Ref:** 6.

**8017 Furanocremophilane-6β,10β-diol**

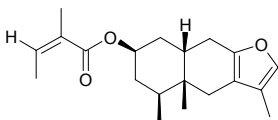
[35101-40-7] C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). mp 122°C. **Source:** LIAN PENG CAO *Farfugium japonicum*. **Ref:** 6.

**8018 Furanofukinol**

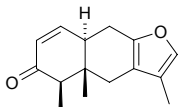
[In DNP] C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). mp 178–180°C (dec). **Source:** FENG DOU CAI *Petasites japonicus*. **Ref:** 6.

**8019 Furanojaponin**

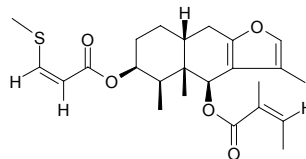
[34335-98-3] C<sub>20</sub>H<sub>28</sub>O<sub>3</sub> (316.44). bp 110–130°C/0.0005mmHg. **Source:** FENG DOU CAI *Petasites japonicus*. **Ref:** 6.

**8020 10α-H-Furanoligularenone**

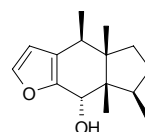
Furanoligularenone [16148-24-6] C<sub>15</sub>H<sub>18</sub>O<sub>2</sub> (230.31). mp 95°C. **Pharm:** Anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; anti-inflammatory (RAW264.7 stimulated by LPS, inhibits PGE2 production, IC<sub>50</sub> = 1.93μmol/L; inhibits expression of COX-2)<sup>[4415]</sup>. **Source:** HU LU QI *Ligularia fischeri*, HU LU QI BIAN ZHONG *Ligularia fischeri* var. *spiciformis*. **Ref:** 6, 4415.

**8021 S-Furanopetasitin**

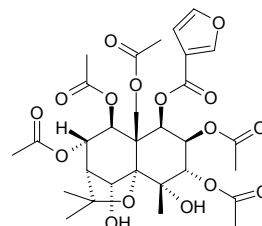
[34335-97-2] C<sub>24</sub>H<sub>32</sub>O<sub>5</sub>S (432.58). mp 107–108°C. **Source:** FENG DOU CAI *Petasites japonicus*. **Ref:** 6.

**8022 Furanopinguisanol**

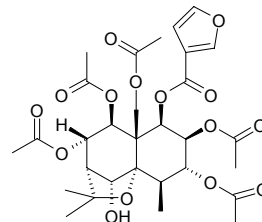
C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). **Source:** YE TAI *Trocholejeunea sandvicensis*. **Ref:** 3909.

**8023 1β-Furanoyl-2β,3α,7α,8β,11-pentaacetoxy-4α,5α-dihydroxy-dihydroagarofuran**

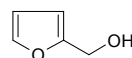
C<sub>30</sub>H<sub>38</sub>O<sub>16</sub> (654.63). Amorphous powder, [α]<sub>D</sub><sup>25</sup> = –12.2° (*c* = 0.8, MeOH). **Pharm:** Immunosuppressant (inhibits lymphocyte transformation, 80μg/mL, InRt = 17%, control Dexamethasone, 50μg/mL, InRt = 61%). **Source:** LEI GONG TENG *Tripterygium wilfordii* (xylem). **Ref:** 4466.

**8024 1β-Furanoyl-2β,3α,7α,8β,11-pentaacetoxy-5α-hydroxy-dihydroagarofuran**

C<sub>30</sub>H<sub>38</sub>O<sub>15</sub> (638.63). Amorphous powder, [α]<sub>D</sub><sup>25</sup> = –32.3° (*c* = 1.7, MeOH). **Pharm:** Immunosuppressant (inhibits lymphocyte transformation, 80μg/mL, InRt = 44%, control Dexamethasone, 50μg/mL, InRt = 61%). **Source:** LEI GONG TENG *Tripterygium wilfordii* (xylem). **Ref:** 4466.

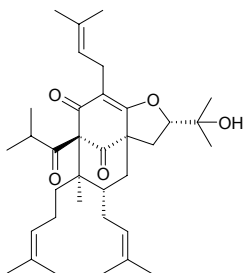
**8025 Furfuryl alcohol**

2-Hydroxymethylfuran [98-00-0] C<sub>5</sub>H<sub>6</sub>O<sub>2</sub> (98.10). bp 170–171°C. **Source:** CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], SHUI SONG *Codium fragile*. **Ref:** 6.

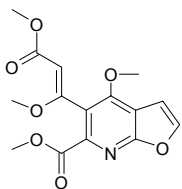


**8026 Furohyperforin**

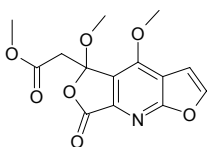
[219793-20-1] C<sub>35</sub>H<sub>52</sub>O<sub>5</sub> (552.80). Oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +62.4° (c = 0.9, CHCl<sub>3</sub>).  
 Source: GUAN YE LIAN QIAO *Hypericum perforatum* (aerial parts: yield = 0.00016%dw). Ref: 1521, 3032.

**8027 Furomegistine I**

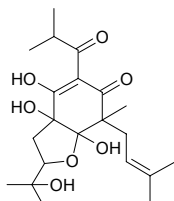
C<sub>15</sub>H<sub>15</sub>NO<sub>7</sub> (321.29). Pharm: Cytotoxic (A549, IC<sub>50</sub> = 90 μmol/L; HT29, IC<sub>50</sub> = 100 μmol/L). Source: *Sarcomelicope megistophylla* (bark). Ref: 5155.

**8028 Furomegistine II**

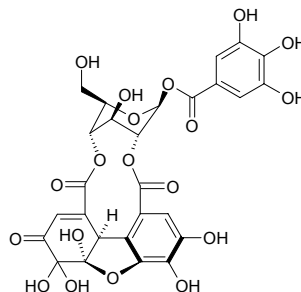
C<sub>14</sub>H<sub>13</sub>NO<sub>7</sub> (307.26). [ $\alpha$ ]<sub>D</sub> = 0° (c = 0.1, CH<sub>2</sub>Cl<sub>2</sub>). Pharm: Cytotoxic (A549, IC<sub>50</sub> = 90 μmol/L; HT29, IC<sub>50</sub> = 100 μmol/L). Source: *Sarcomelicope megistophylla* (bark). Ref: 5155.

**8029 Furonequinone B**

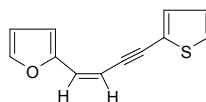
C<sub>21</sub>H<sub>32</sub>O<sub>7</sub> (396.48). Pharm: Antioxidant inactive (PMN cellular chemiluminescence assay, FMLP-induced and OZ-induced oxidative burst). Source: *Hypericum pappunum* Ref: 5371.

**8030 Furosin**

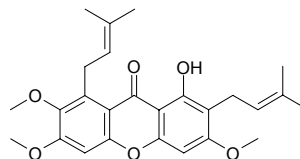
C<sub>27</sub>H<sub>22</sub>O<sub>19</sub> (650.46). Source: AN MO LE *Phyllanthus emblica* (branch and leaf). Ref: 3094.

**8031 cis-1-(2-Furyl)-4-(2-thienyl)-1-buten-3-yne**

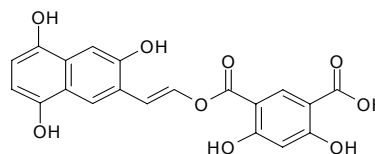
[20288-15-7] C<sub>12</sub>H<sub>8</sub>OS (200.26). bp 100~110°C/0.3mmHg. Source: YANG SHI CAO *Achillea millefolium*. Ref: 6.

**8032 Fuscaxanthone C**

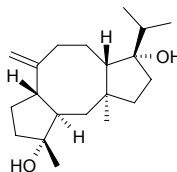
C<sub>26</sub>H<sub>30</sub>O<sub>6</sub> (438.53). Pharm: Cytotoxic inactive (hmn small cell lung cancer NCI-H187 cell line, control Ellipticine, IC<sub>50</sub> = (0.35±0.15) μg/mL). Source: QIAO MU ZHUANG HUANG NIU MU *Cratogeomys arborescens* (stem cortex). Ref: 5061.

**8033 Fuscoporine**

C<sub>20</sub>H<sub>14</sub>O<sub>9</sub> (398.33). Dull-brown powder, mp > 300°C. Source: HUA HE KONG JUN *Fusoporia obliqua*. Ref: 792.

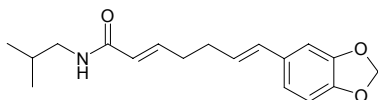
**8034 Fucoserpenol A**

4 $\alpha$ ,12 $\alpha$ -Dihydroxy-8(17)-fusicoccene C<sub>20</sub>H<sub>34</sub>O<sub>2</sub> (306.49). Colorless crystals (hexane), mp 87~90°C, [ $\alpha$ ]<sub>D</sub> = +19.4° (c = 0.5, CHCl<sub>3</sub>). Pharm: Antifungal. Source: PU FU QIANG DAO YAO *Hypoestes serpens*. Ref: 2063.

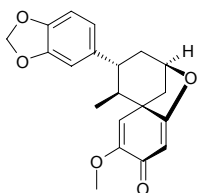


**8035 Futoamide**

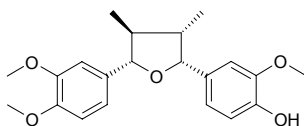
$C_{18}H_{23}NO_3$  (301.39). mp 128~130°C. Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*], SHAN JU *Piper hancei*. Ref: 6, 75.

**8036 Futoenone**

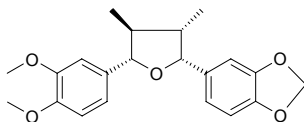
[19913-01-1]  $C_{20}H_{20}O_5$  (340.38). mp 197°C. Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*]. Ref: 6.

**8037 Futokadsurin A**

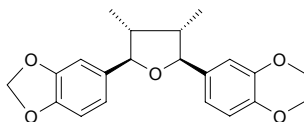
(7*S*,8*S*,7'*S*,8'*R*)-3,4,3'-Trimethoxy-4'-hydroxy-7,7'-epoxylyngan  $C_{21}H_{26}O_5$  (358.44). Colorless oil,  $[\alpha]_D^{25} = +12.3^\circ$  ( $c = 1.09$ ,  $CHCl_3$ ). Pharm: NO production inhibitor (mus, macrophage-like cell line RAW264.7 activated by LPS/IFN,  $IC_{50} = 47.2\mu mol/L$ , control quercetin,  $IC_{50} = 26.8\mu mol/L$ )<sup>[2537]</sup>. Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*]. Ref: 2537.

**8038 Futokadsurin B**

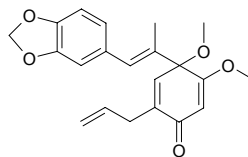
(7*R*,8*R*,7'*R*,8'*S*)-3,4-Dimethoxy-3',4'-methylenedioxy-7,7'-epoxylyngan  $C_{21}H_{24}O_5$  (356.42). Colorless needles, mp 102°C,  $[\alpha]_D^{23} = +33.7^\circ$  ( $c = 1.18$ ,  $CHCl_3$ ). Pharm: NO production inhibitor (mus, macrophage-like cell line RAW264.7 activated by LPS/IFN,  $IC_{50} = 55.0\mu mol/L$ , control quercetin,  $IC_{50} = 26.8\mu mol/L$ )<sup>[2537]</sup>. Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*]. Ref: 2537.

**8039 Futokadsurin C**

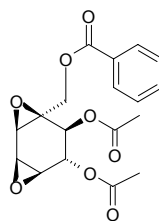
(7*R*,8*R*,7'*S*,8'*S*)-3,4-Methylenedioxy-3',4'-dimethoxy-7,7'-epoxylyngan  $C_{21}H_{24}O_5$  (356.42). Colorless oil,  $[\alpha]_D^{23} = -11.7^\circ$  ( $c = 3.26$ ,  $CHCl_3$ ). Pharm: NO production inhibitor (mus, macrophage-like cell line RAW264.7 activated by LPS/IFN,  $IC_{50} = 79.2\mu mol/L$ , control quercetin,  $IC_{50} = 26.8\mu mol/L$ )<sup>[2537]</sup>. Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*]. Ref: 2537.

**8040 Futoquinol**

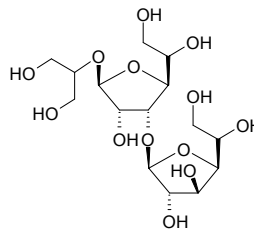
Hancinone D [28178-92-9]  $C_{21}H_{22}O_5$  (354.41). White crystals (hexane), mp 96~97°C, mp 97~98°C,  $[\alpha]_D^{14} = 0^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). Pharm: PAF antagonist ( $IC_{50} = 23\mu mol/L$ ). Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*], SHAN JU *Piper hancei*, ZHANG YE HU JIAO *Piper polysyphorum*. Ref: 6, 130, 191, 1578.

**8041 Futoxide**

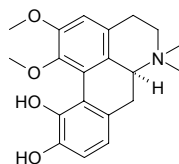
Crotopoxide [20421-13-0]  $C_{18}H_{18}O_8$  (362.34). mp 150~151°C. Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*]. Ref: 6, 5501.

**8042 Fuzinoside**

Glycerol-2-*O*-β-*D*-galactofuranosyl (1→3)-galactofuranoside  $C_{15}H_{28}O_{13}$  (416.38). Yellowish powder. Source: FU ZI *Aconitum carmichaeli*. Ref: 4588.

**8043 Fuzitine**

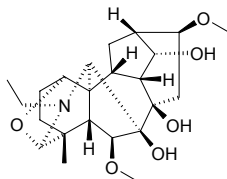
$C_{20}H_{25}NO_4$  (343.43). Brown solid, mp 210~212°C(dec.),  $[\alpha]_D^{25} = +212^\circ$  ( $c = 0.1$ , MeOH). Source: XIAN MAO HEI ZHONG CAO *Nigella glandulifera* (seed). Ref: 4277.



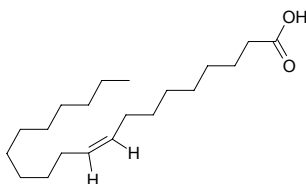
## G

**8044 Gadesine**

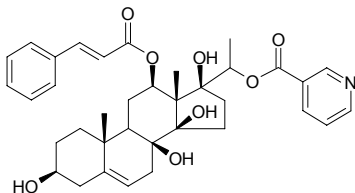
[70420-60-9] C<sub>23</sub>H<sub>35</sub>NO<sub>6</sub> (421.54). mp 174~177°C, [ $\alpha$ ]<sub>D</sub> = +76° (*c* = 0.27, EtOH). Source: WU ZHU FEI YAN CAO *Delphinium pentagynum*. Ref: 1521.

**8045 Gadoleic acid**

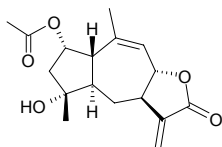
[29204-02-2] C<sub>20</sub>H<sub>38</sub>O<sub>2</sub> (310.52). mp (*cis*)23.0~23.5°C, bp 170°C/0.1mmHg. Source: LUO HUA SHENG YOU *Arachis hypogaea*. Ref: 6.

**8046 Gagamine**

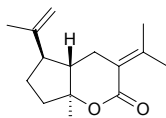
[41060-37-1] C<sub>36</sub>H<sub>43</sub>NO<sub>8</sub> (617.75). mp 166~169°C. Source: LUO MO *Metaplexis japonica*. Ref: 6.

**8047 Gaillardin**

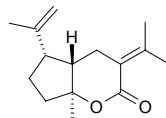
[14682-46-3] C<sub>17</sub>H<sub>22</sub>O<sub>5</sub> (306.36). Crystals, mp 199~200°C (vacuum), [ $\alpha$ ]<sub>D</sub><sup>30</sup> = -15° (*c* = 1.08, chloroform). Pharm: Antineoplastic (KB, ED<sub>50</sub> = 0.80~1.60µg/mL or 2.30µg/mL); antiprotozoal (amebic and *Trichomonas vaginalis*, 0.24~7.8µg/mL). Source: TIAN REN JU *Gaillardia pulchella*, ZHONG GUO XUAN FU HUA *Inula britannica* var. *chinensis*. Ref: 661.

**8048 Gajutsulactone A**

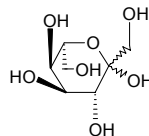
C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = -128.4° (*c* = 0.10, CHCl<sub>3</sub>). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100µmol/L, InRt = (53.6±3.0)%, control *L*-NMMA, 100µmol/L, InRt = (79.2±0.9)%, *p*<0.01). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

**8049 Gajutsulactone B**

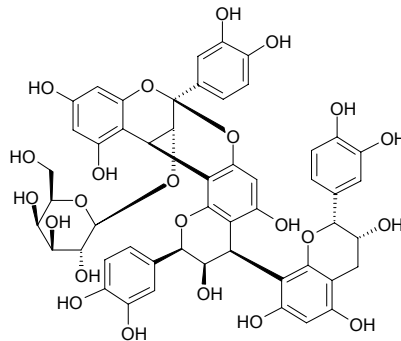
C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = -35.0° (*c* = 0.10, CHCl<sub>3</sub>), [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -53.4° (*c* = 0.1, MeOH). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100µmol/L, InRt = (57.5±3.5)%, control *L*-NMMA, 100µmol/L, InRt = (79.2±0.9)%, *p*<0.01). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

**8050 L-Galactoheptulose**

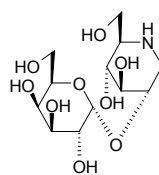
[29325-35-7] C<sub>7</sub>H<sub>14</sub>O<sub>7</sub> (210.19). mp 110~115°C (dec). Source: MU XU *Medicago sativa*. Ref: 6, 1521.

**8051 3T-O-β-D-Galactopyranosylcinamtannin B<sub>1</sub>**

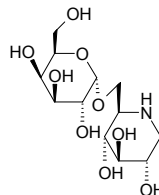
C<sub>51</sub>H<sub>46</sub>O<sub>23</sub> (1026.92). Light-brown amorphous powder, [ $\alpha$ ]<sub>D</sub> = +17.1° (*c* = 1, MeOH). Pharm: Antioxidant (inhibits NADPH-dependent lipid peroxidation in microsomes and autoxidation of linoleic acid); antioxidant (DPPH scavenger (effective)). Source: KE KE *Theobroma cacao*. Ref: 2023.

**8052 2-O-α-D-Galactopyranosyl-1-deoxynojirimycin**

C<sub>12</sub>H<sub>23</sub>NO<sub>9</sub> (325.32). Pharm: Hypoglycemic (mus diabetes mellitus induced by SIZ, distinct effect). Source: SANG ZHI *Morus alba*. Ref: 2170.

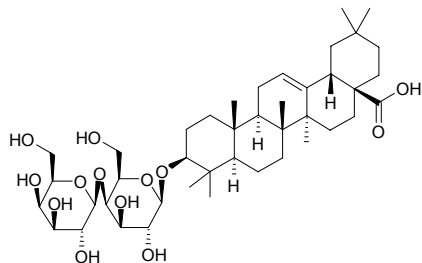
**8053 6-O-α-D-Galactopyranosyl-1-deoxynojirimycin**

C<sub>12</sub>H<sub>23</sub>NO<sub>9</sub> (325.32). Source: *Morus* sp. Ref: 2513.

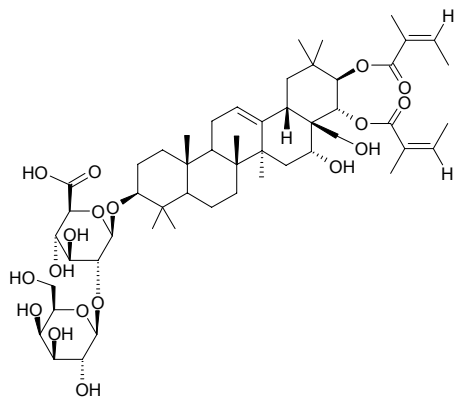


**8054 3-O-β-D-Galactopyranosyl-(1→4)-β-D-galactopyranosyloleanolic acid**

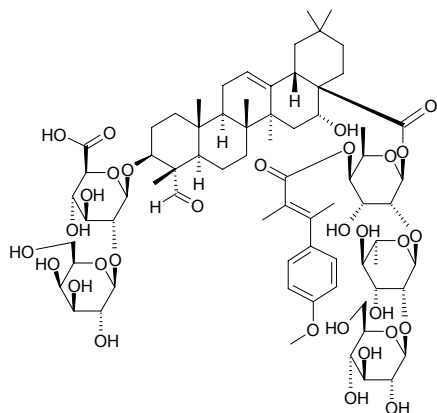
C<sub>42</sub>H<sub>68</sub>O<sub>13</sub> (781.00). **Pharm:** Cytotoxic (A2780, IC<sub>50</sub> = (9.6±0.3)μg/mL; control Actinomycin D, IC<sub>50</sub> = 2–5ng/mL). **Source:** DA YE NAN YANG SHEN *Polyscia amplifolia* (infructescence), GUANG YE JUE MING *Cassia laevigata* [Syn. *Cassia floribunda*]. **Ref:** 5397.

**8055 3-O-β-D-Galactopyranosyl-(1→2)-β-D-glucuronopyranosyl-21β, 22α-di-O-angeloylbarringtonol C**

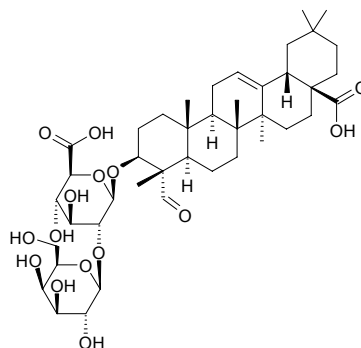
C<sub>52</sub>H<sub>80</sub>O<sub>18</sub> (993.21). [α]<sub>D</sub><sup>21</sup> = +2.3° (c = 0.13, MeOH). **Source:** NAN SU GE LAN JIA SHAN LUO *Harpullia austro-caledonica* (stem cortex). **Ref:** 5269.

**8056 3-O-[β-D-Galactopyranosyl-(1→2)-β-D-glucuronopyranosyl]-28-O-[β-D-glucopyranosyl-(1→2)-α-L-rhamnopyranosyl-(1→2)-β-D-4-O-trans-p-methoxycinnamoyl-fucopyranosyl] quillaic acid**

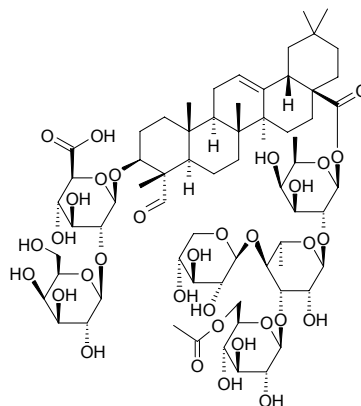
C<sub>72</sub>H<sub>106</sub>O<sub>31</sub> (1467.63). **Source:** HAN MAI PING CAO *Silene jennisensis*. **Ref:** 709.

**8057 3-O-β-D-Galactopyranosyl-(1→2)-β-D-glucuronopyranosyl-gypso-genin**

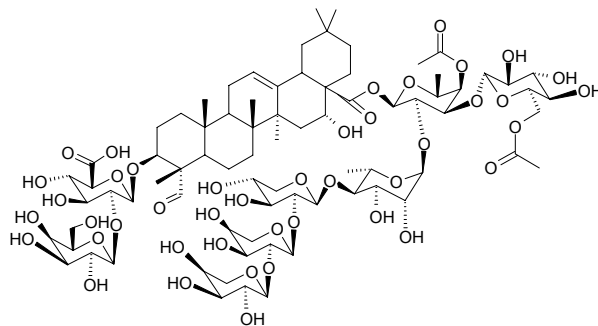
C<sub>42</sub>H<sub>64</sub>O<sub>15</sub> (808.97). White amorphous powder. **Source:** JIN TIE SUO *Psammosilene tunicoides*. **Ref:** 2261.

**8058 3-O-β-D-Galactopyranosyl-(1→2)-β-D-glucuronopyranosyl-gypso-genin-28-O-β-D-xylopyranosyl(1→4)-[β-D-6-O-acetylglucopyranosyl (1→3)]-α-L-rhamnopyranosyl(1→2)-β-D-fucopyranoside**

C<sub>67</sub>H<sub>104</sub>O<sub>33</sub> (1437.56). White powder. **Source:** JIN TIE SUO *Psammosilene tunicoides*. **Ref:** 2261.

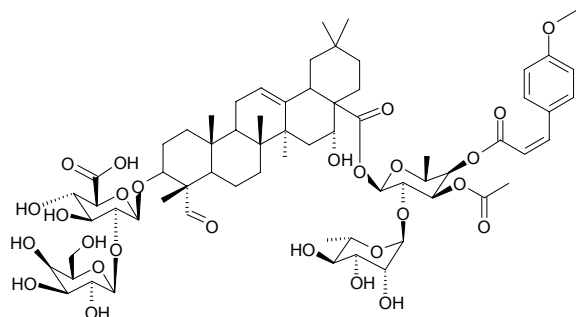


**8059 3-O-[β-D-Galactopyranosyl-(1→2)-β-D-glucuronopyranosyl] quillaic acid-28-O-[α-L-arabinopyranosyl-(1→2)-α-L-arabinopyranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→2)]-[6-O-acetyl-β-D-glucopyranosyl-(1→3)]-4-O-acetyl-β-D-fucopyranoside**  
C<sub>79</sub>H<sub>122</sub>O<sub>43</sub> (1757.83). White amorphous powder, [α]<sub>D</sub><sup>20</sup> = +13° (c = 0.10, MeOH). **Pharm:** Proliferation stimulator (Jurkat-Tumor cell lines, at low concentration). **Source:** YING ZI CAO *Silene fortunei* (root: yield = 0.0028%dw). **Ref:** 4658.



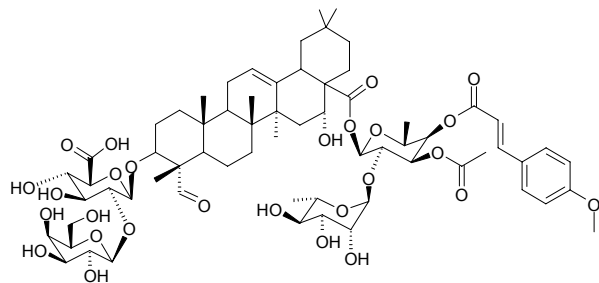
**8060 3-O-[ $\beta$ -D-Galactopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranosyl] quillaic acid-28-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-3-O-acetyl-4-O-cis-p-methoxycinnamoyl  $\beta$ -D-fucopyranoside**

C<sub>66</sub>H<sub>94</sub>O<sub>27</sub> (1319.47). White amorphous powder. **Pharm:** Proliferation stimulator or inhibitor (Jurkat-Tumor cell lines, stimulator at low concentration, inhibitor at high concentration). **Source:** YING ZI CAO *Silene fortunei* (root). **Ref:** 4658.



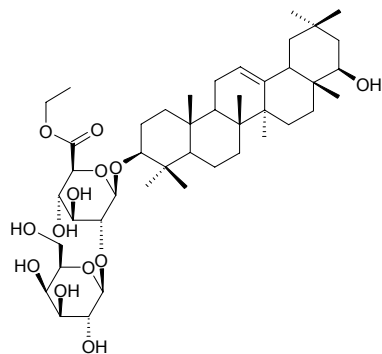
**8061 3-O-[ $\beta$ -D-Galactopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranosyl] quillaic acid-28-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-3-O-acetyl-4-O-trans-p-methoxycinnamoyl  $\beta$ -D-fucopyranoside**

C<sub>66</sub>H<sub>94</sub>O<sub>27</sub> (1319.47). White amorphous powder. **Pharm:** Proliferation stimulator or inhibitor (Jurkat-Tumor cell lines, stimulator at low concentration, inhibitor at high concentration). **Source:** YING ZI CAO *Silene fortunei* (root). **Ref:** 4658.



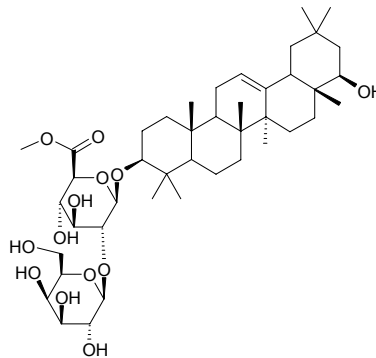
**8062 3-O-[ $\beta$ -D-Galactopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranosyl]-sophoradiol ethyl ester**

C<sub>44</sub>H<sub>72</sub>O<sub>13</sub> (809.06). White amorphous powder. **Source:** HUAI *Sophora japonica* (bud). **Ref:** 4823.



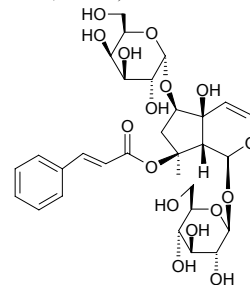
**8063 3-O-[ $\beta$ -D-Galactopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranosyl]-sophoradiol methyl ester**

C<sub>43</sub>H<sub>70</sub>O<sub>13</sub> (795.03). **Source:** HUAI *Sophora japonica* (bud). **Ref:** 4823.



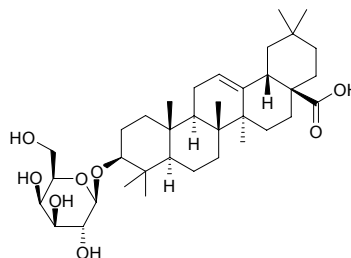
**8064 6-O- $\alpha$ -D-Galactopyranosylharpagoside**

C<sub>30</sub>H<sub>40</sub>O<sub>16</sub> (656.64). Amorphous powder, mp 169–173°C, [ $\alpha$ ]<sub>D</sub> =  $\alpha$ -7.43° (c = 0.336, MeOH). **Source:** XUAN SHEN *Scrophularia ningpoensis*. **Ref:** 1855.



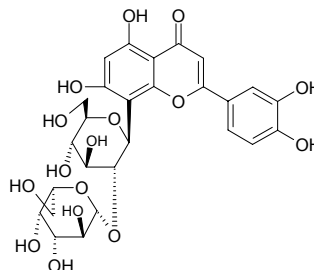
**8065 3-O- $\beta$ -D-Galactopyranosyloleanolic acid**

C<sub>36</sub>H<sub>58</sub>O<sub>8</sub> (618.86). **Pharm:** Cytotoxic (A2780, IC<sub>50</sub> = (10.8±0.5)μg/mL; control Actinomycin D, IC<sub>50</sub> = 2–5ng/mL). **Source:** DA YE NAN YANG SHEN *Polyscias amplifolia* (inflorescence), DUAN HUA HU LU *Lagenaria breviflora*, *Brenania brieyi*. **Ref:** 5397.



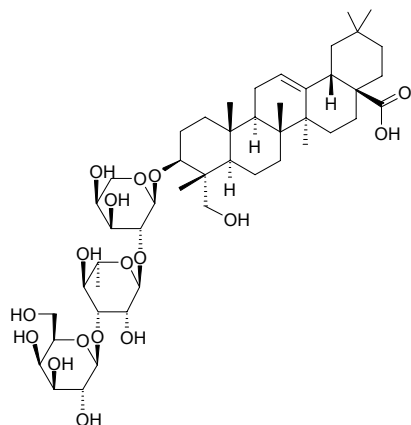
**8066 2''-O- $\beta$ -L-Galactopyranosylorientin**

C<sub>27</sub>H<sub>30</sub>O<sub>16</sub> (610.53). Yellow powder, mp 218–220°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +28.9° (c = 0.045, MeOH). **Source:** DUAN BAN JIN LIAN HUA *Trollius ledbourii* (flower). **Ref:** 5278.



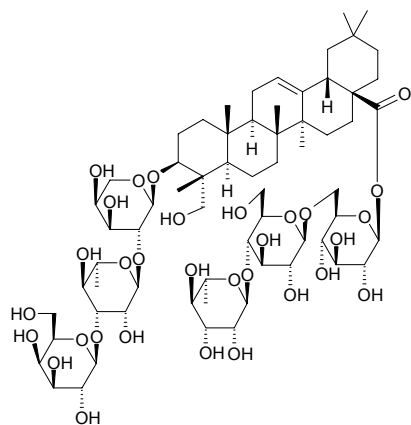
**8067** 3 $\beta$ -O- $\beta$ -D-Galactopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-23-hydroxyolean-12-en-28-oic acid

[245050-38-8] C<sub>47</sub>H<sub>76</sub>O<sub>17</sub> (913.12). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +36.2° (c = 0.1, MeOH). Source: DUO BAN LV TI CAO *Caltha polypetala*. Ref: 2338.



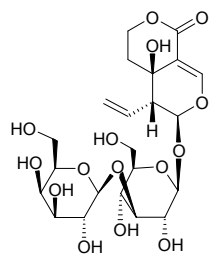
**8068** 3 $\beta$ -O- $\beta$ -D-Galactopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-23-hydroxyolean-12-en-28-oic acid 28-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester

[245050-37-7] C<sub>65</sub>H<sub>106</sub>O<sub>31</sub> (1383.55). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -18.60° (c = 0.1, MeOH). Source: DUO BAN LV TI CAO *Caltha polypetala*. Ref: 2338.



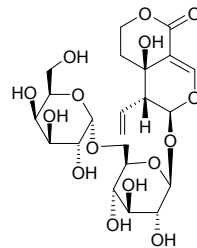
**8069** 3'-O- $\beta$ -D-Galactopyranosylswertiamarin

C<sub>22</sub>H<sub>32</sub>O<sub>15</sub> (536.49). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = -88.2° (c = 0.05, MeOH). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.



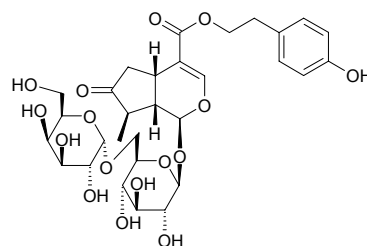
**8070** 6'-O- $\alpha$ -D-Galactopyranosylswertiamarin

C<sub>22</sub>H<sub>32</sub>O<sub>15</sub> (536.49). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = -46.0° (c = 0.09, MeOH). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.



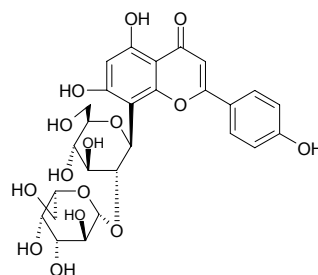
**8071** 6'-O- $\alpha$ -D-Galactopyranosylsyringopicroside

C<sub>30</sub>H<sub>40</sub>O<sub>16</sub> (656.64). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -21.1° (c = 0.389, MeOH). Source: BAO MA ZI *Syringa amurensis* [Syn. *Syringa reticulata* var. *amurensis*] (leaf). Ref: 4363, 4723.



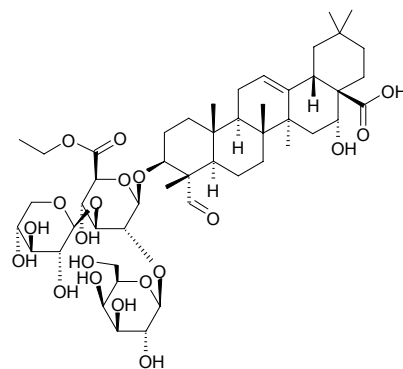
**8072** 2''-O- $\beta$ -L-Galactopyranosylvitexin

C<sub>27</sub>H<sub>30</sub>O<sub>15</sub> (594.53). Yellow powder, mp 260-262°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -37.2° (c = 0.022, MeOH). Source: DUAN BAN JIN LIAN HUA *Trollius ledebourii* (flower). Ref: 5278.



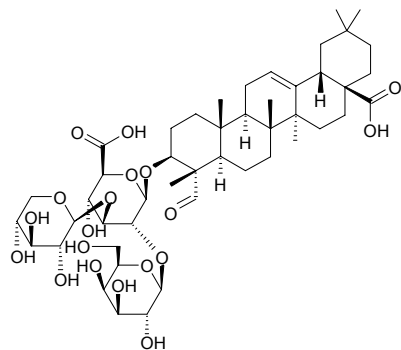
**8073** 3-O- $\beta$ -D-Galactopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -D-xylopyranosyl(1 $\rightarrow$ 3)]- $\beta$ -D-6-O-ethylglucuronopyranosyl-quillaic acid

C<sub>49</sub>H<sub>76</sub>O<sub>20</sub> (985.14). White amorphous powder, mp 232-235°C [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -106.98° (c = 0.43, MeOH). Source: JIN TIE SUO *Psammosilene tunicoidea*. Ref: 2486.



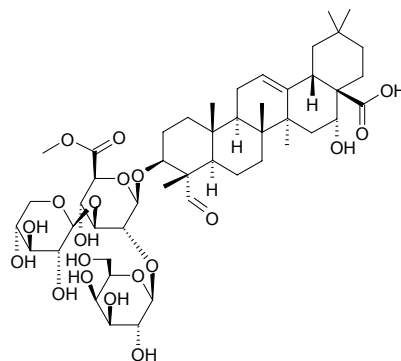
**8074 3-O-β-D-Galactopyranosyl-(1→2)-[β-D-xylopyranosyl(1→3)]-β-D-glucuronopyranosyl-gypsogenin**

C<sub>47</sub>H<sub>72</sub>O<sub>19</sub> (941.09). White amorphous powder. Source: JIN TIE SUO *Psammosilene tunicoides*. Ref: 2261.



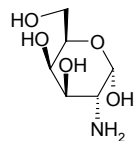
**8075 3-O-β-D-Galactopyranosyl(1→2)-[β-D-xylopyranosyl(1→3)]-β-D-6-O-methylglucuronopyranosyl-quillaic acid**

C<sub>48</sub>H<sub>74</sub>O<sub>20</sub> (971.11). White amorphous powder, mp 225~228°C [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +12.31° (c = 0.325, MeOH). Source: JIN TIE SUO *Psammosilene tunicoides*. Ref: 2486.



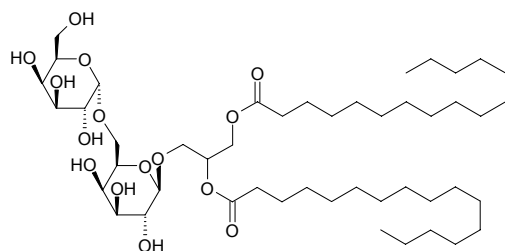
**8076 Galactosamine**

[7535-00-4] C<sub>6</sub>H<sub>13</sub>NO<sub>5</sub> (179.17). mp D(-) 185°C. Source: LU RONG *Cervus nippon*; *Cervus elaphus*, YE YU *Colocasia antiquorum*. Ref: 2.



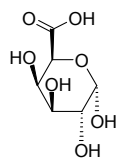
**8077 1-O-β-D-Galactosyl (6→1)-α-D-galactosyl-2,3-O-dihexadecanoyl-glycerol**

C<sub>47</sub>H<sub>88</sub>O<sub>15</sub> (893.22). Yellowish gum. Source: XIAO YE GUAN ZHONG *Matteuccia struthiopteris* (rhizome). Ref: 4862.



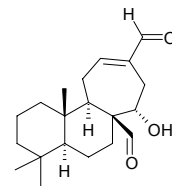
**8078 D-Galacturonic acid**

[6294-16-2] C<sub>6</sub>H<sub>10</sub>O<sub>7</sub> (194.14). mp (α) 156~159°C (dec), mp (β) 160°C (dec). Source: CHUN *Brasenia schreberi*, FEN TUAN HUA *Hydrangea paniculata*, HAI DAI *Zostera marina*, KU GUA *Momordica charantia*, LUO LE ZI *Ocimum basilicum*, MU MIAN HUA *Bombax malabaricum* [Syn. *Gossampinus malabarica*], YE YU *Colocasia antiquorum*, YI ZHU QIAN MA *Urtica dioica*, YU SHU SHU *Zea mays*. Ref: 6, 660.



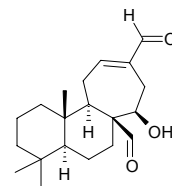
**8079 Galanal A**

[104086-74-0] C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). Colorless rhombic Crystals, mp 167~169°C, [ $\alpha$ ]<sub>D</sub> = -44° (c = 0.1, chloroform). Pharm: Antifungal (*Candida guilliermondii*, MIC = 12.5μg/mL); cytotoxic (KB, ED<sub>50</sub> = 3.25μg/mL). Source: DA LIANG JIANG *Alpinia galanga*. Ref: 1140.



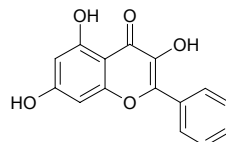
**8080 Galanal B**

[104113-52-2] C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). Colorless rhombic Crystals, mp 134.0~134.5°C, [ $\alpha$ ]<sub>D</sub> = -48° (c = 0.1, chloroform). Pharm: Antifungal (*Candida guilliermondii*, MIC = 12.5μg/mL, *Candida tropicalis*, MIC = 50μg/mL); cytotoxic (KB, ED<sub>50</sub> = 15.0μg/mL). Source: DA LIANG JIANG *Alpinia galanga*. Ref: 1140.



**8081 Galangin**

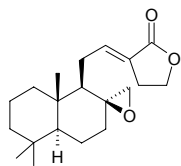
4*H*-1-Benzopyran-4-one,3,5,7-trihydroxy-2-phenyl [548-83-4] C<sub>15</sub>H<sub>10</sub>O<sub>5</sub> (270.24). Yellow acicular Crystals (MeOH), mp 214~216°C. Pharm: Antimicrobial (bacteria on skin surface, such as *Pseudomonas maltophilia*, *Enterobacter cloacae*, and *Staphylococcus epidermidis*); cyclo-oxygenase inhibitor (ox spermia); mutagen (*Salmonella aertrycke* TA98 and TA100); antiemetic (young male chicks, copper sulfate induced emesis assay, 20mg/kg, InRt = 25.4%, p < 0.01)<sup>[4649]</sup>. Source: BING TOU CAO *Scutellaria galericulata*, CHUI QI MU *Alnus pendula*, DA CHE QIAN *Plantago major*, DA LIANG JIANG *Alpinia galanga*, FENG JIAO *Apis mellifera ligustica*, GAO LIANG JIANG *Alpinia officinarum* (dried rhizome: content scope of 12 origins = 0.35%~1.30%, mean content = 0.756%<sup>[5508]</sup>; yield = 0.063%<sup>[4649]</sup>), *Escallonia* sp. Ref: 6, 463, 658, 4649, 5501, 5508.



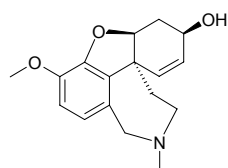


**8082 Galanolactone**

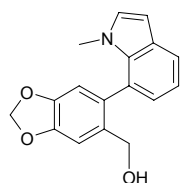
[115753-79-2] C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). Source: DALIANG JIANG *Alpinia galanga*, SHENG JIANG *Zingiber officinale*. Ref: 1140, 1542.

**8083 Galanthamine**

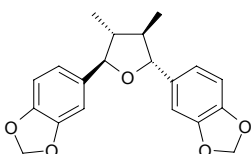
Jikon; Lycoremine; Galantamine [357-70-7] C<sub>17</sub>H<sub>21</sub>NO<sub>3</sub> (287.36). Crystals (benzene), mp 126~127°C (benzene), [α]<sub>D</sub><sup>20</sup> = -118.8° (c = 1.378, ethanol), soluble in hot water, easily soluble in ethanol, acetone, chloroform, slightly soluble in benzene, ether.<sup>[5507]</sup> Pharm: Analgesic; pesticide (kills *Eurema hecabe mandarina*); cholinesterase inhibitor (reversibly inhibits cholinesterase and easily passes BBB: AChE, IC<sub>50</sub> = (0.50±0.01) μmol/L, BChE, IC<sub>50</sub> = (8.2±0.01) μmol/L); AChE inhibitor (IC<sub>50</sub> = (1.9±0.2) μmol/L)<sup>[4952]</sup>. Source: BAI SHUI XIAN *Narcissus papyraceus*, DA YI ZHI JIAN *Lycoris aurea*, LU CONG *Lycoris squamigera*, SHI SUAN *Lycoris radiata* [Syn. *Amaryllis radiata*], SHUI XIAN GEN *Narcissus tazetta* var. *chinensis*, XIA XUE PIAN LIAN *Leucojum aestivum*, XUE HUA LIAN *Galanthus nivalis*, XUE PIAN LIAN *Leucojum vernum*. Ref: 4, 6, 658, 2563, 4952, 5507.

**8084 Galanthindole**

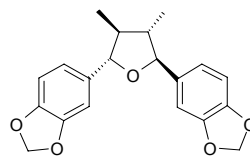
C<sub>17</sub>H<sub>15</sub>NO<sub>3</sub> (281.31). Colorless amorphous solid. Source: TU ER QI XUE HUA LIAN *Galanthus plicatus* ssp. *byzantinus*. Ref: 5443.

**8085 (+)-Galbacin**

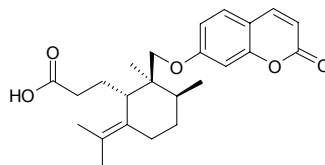
[528-64-3] C<sub>20</sub>H<sub>20</sub>O<sub>5</sub> (340.38). Crystals (EtOAc), mp 115.5~116°C, [α]<sub>D</sub> = +117° (CHCl<sub>3</sub>). Pharm: Antibacterial (*Mycobacterium tuberculosis* H37Rv). Source: RI BEN NAN *Machilus japonica*, SAN JIAO MA DOU LING *Aristolochia triangularis*. Ref: 658, 1521.

**8086 (-)-Galbacin**

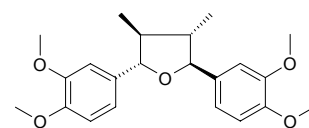
C<sub>20</sub>H<sub>20</sub>O<sub>5</sub> (340.38). Pharm: NO production inhibitor (mus, macrophage-like cell line RAW264.7 activated by LPS/IFN, IC<sub>50</sub> = 47.7 μmol/L, control quercetin, IC<sub>50</sub> = 26.8 μmol/L)<sup>[2537]</sup>. Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*], YU LAN *Magnolia denudata* [Syn. *Magnolia heptapata*]. Ref: 2537, 4439.

**8087 Galbanic acid**

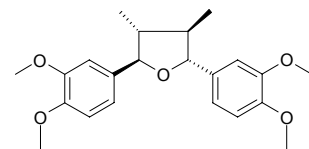
C<sub>24</sub>H<sub>30</sub>O<sub>5</sub> (398.50). Source: A WEI *Ferula assafoetida* (root). Ref: 5243.

**8088 (-)-Galbelgin**

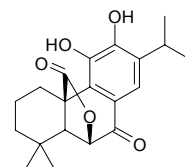
C<sub>22</sub>H<sub>28</sub>O<sub>5</sub> (372.47). Pharm: NO production inhibitor (mus, macrophage-like cell line RAW264.7 activated by LPS/IFN, IC<sub>50</sub> > 100 μmol/L, control quercetin, IC<sub>50</sub> = 26.8 μmol/L). Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*]. Ref: 2537.

**8089 (+)-Galbelgin**

C<sub>22</sub>H<sub>28</sub>O<sub>5</sub> (372.47). Pharm: Neuroprotective (glutamate-induced neurotoxicity in primary cultures of cortical cells, 0.1 μmol/L, protection rate = (20.9±3.2)%, p < 0.05, MK-801: 1.0 μmol/L, protection rate = (83.6±2.0)%, p < 0.001, CNQX: 1.0 μmol/L, protection rate = (70.5±1.5)%, p < 0.001). Source: HONG NAN PI *Machilus thunbergii*. Ref: 4927.

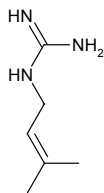
**8090 Galdosol**

rosmanol [52591-18-1] C<sub>20</sub>H<sub>24</sub>O<sub>5</sub> (344.41). Pharm: Binding activity to benzodiazepine receptor (IC<sub>50</sub> = (0.8±0.1) μmol/L, control Diazepam, IC<sub>50</sub> = (0.05±0.01) μmol/L)<sup>[5366]</sup>. Source: YAO YONG DAN SHEN YE *Salvia officinalis*. Ref: 5366.

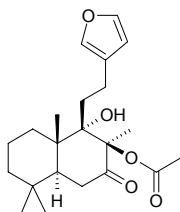


**8091 Galegine**

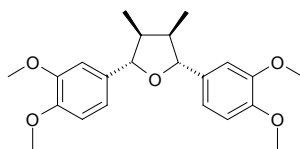
[543-83-9] C<sub>6</sub>H<sub>13</sub>N<sub>3</sub> (127.19). Moisture absorption bitter Crystals, mp 60–65°C. **Pharm:** Hypoglycemic; toxin. **Source:** SHAN YANG DOU *Galega officinalis*. **Ref:** 661.

**8092 Galeopsin**

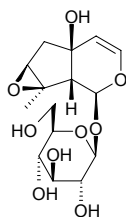
[76475-16-6] C<sub>22</sub>H<sub>32</sub>O<sub>5</sub> (376.50). **Source:** YI MU CAO *Leonurus heterophyllus* [Syn. *Leonurus artemisia*]. **Ref:** 1543, 4493, 4534.

**8093 (±)-Galgravin**

C<sub>22</sub>H<sub>28</sub>O<sub>5</sub> (372.47). **Pharm:** NO production inhibitor (mus, macrophage-like cell line RAW264.7 activated by LPS/IFN, IC<sub>50</sub> = 33.4 μmol/L, control quercetin, IC<sub>50</sub> = 26.8 μmol/L)<sup>[2537]</sup>. **Source:** HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*], YU LAN *Magnolia denudata* [Syn. *Magnolia heptapata*]. **Ref:** 2537, 4439.

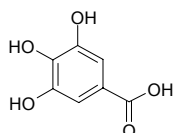
**8094 Galiridoside**

C<sub>15</sub>H<sub>22</sub>O<sub>9</sub> (346.34). White powder. **Source:** BO SI YI MU CAO *Leonurus persicus*, TAI WAN JIN GU CAO *Ajuga taiwanensis* (whole herb). **Ref:** 2499, 4483.

**8095 Gallic acid**

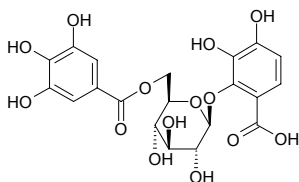
3,4,5-Trihydroxybenzoic acid [149-91-7] C<sub>7</sub>H<sub>6</sub>O<sub>5</sub> (170.12). mp 235–240°C (dec). **Pharm:** Antiallergic; antibacterial (*in vitro*: *Staphylococcus aureus*, *Sarcina* sp., *α-Streptococcus*, *Neisseria* sp., *Bacillus pyocyaneus*, *Bacillus dysenteriae*, *Bacillus typhorus* and *Bacillus paratyphosus* A, EC = 5 mg/mL); antineoplastic (mus, pulmonary adenoma induced by morpholine and sodium nitrite); cytotoxic (antioxidant assay)<sup>[5038]</sup>; antifungal (17 kinds of fungi *in vitro*, EC = 3%); anti-inflammatory; antimutagenic; antiviral (influenza virus); astringent (intestinal tract of livestock animals); antiasthmatic; choleric; inhibits degradation of insulin, IL-10-like activity (proliferation assay, dose-dependent, maximal at 30 μg/mL)<sup>[4445]</sup>; antioxidant (DPPH scavenger, TLC, MIA < 0.05 μg, IC<sub>50</sub> = 4 μg/mL)<sup>[5247]</sup>; DPPH scavenger (IC<sub>50</sub> = (12.4±0.2) μmol/L, control Trolox, IC<sub>50</sub> = (25.4±0.8) μmol/L)<sup>[4244]</sup>; cell growth inhibitor (tsFT210 cell, ≥ 12.5 μg/L, inhibits G2/M stage); ACE inhibitor (IC<sub>50</sub> > 500 μmol/L, control Lisinopril, IC<sub>50</sub> = 1 nmol/L); NEP inhibitor (IC<sub>50</sub> = 480 μmol/L, control Phosphoramidon, IC<sub>50</sub> = 9 nmol/L); APN inhibitor inactive; antibacterial (*Erwinia carotovora*, IZD = 13 mm/100 μg, control Quercetin sulfate, IZD = 21 mm/10 μg; *Staphylococcus aureus*, IZD = 7 mm/100 μg, Quercetin sulfate, IZD = 14 mm/10 μg; *Corynebacterium accolens*, IZD = 7 mm/100 μg, Quercetin sulfate, IZD = 28 mm/10 μg)<sup>[5250]</sup>; antifungal (*Candida albicans*, IZD = 7 mm/100 μg, control Nystatin, IZD = 11 mm/20 μg)<sup>[5250]</sup>; xanthine oxidase inhibitor (IC<sub>50</sub> = 7.1 μg/mL, IC<sub>50</sub> = 41.7 μmol/L; control Quercetin, IC<sub>50</sub> = 3.4 μg/mL, IC<sub>50</sub> = 10 μmol/L)<sup>[5250]</sup>. **Source:** A LA BO JIN HE HUAN *Acacia arabica*, BAI HUA QIAN HU *Peucedanum praeruptorum*, BAI LIAN *Ampelopsis japonica* [Syn. *Paullinia japonica*], BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (fresh fruit: yield = 1.13%fw)<sup>[4695]</sup>, BIAN XU *Polygonum aviculare*, CAO YUAN LAO GUAN CAO *Geranium pratense*, CHANG YE SHUI MA *Debregeasia longifolia*, CHENG LIU *Tamarix chinensis*, CU LIU GUO *Hippophae rhamnoides*, DA HUANG *Rheum officinale* (stem and rhizome: mean content = 0.282%<sup>[5508]</sup>), DA YE AN YE *Eucalyptus robusta*, DA YE KU NUO NI *Cunonia macrophylla* (leaf), DI JIN CAO *Euphorbia humifusa*, DI YU *Sanguisorba officinalis* (dried root: mean content of 6 origins = 0.25%<sup>[5508]</sup>), DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield = 0.0047%dw)<sup>[4767]</sup>, DUO HUA SHAO YAO *Paeonia emodi* (fruit), ER CHA GOU TENG *Uncaria gambir*, FAN SHI LIU GAN *Psidium guajava*, HE TAO DA HUANG *Rheum hotaense* (stem and rhizome: content = 0.38%<sup>[5508]</sup>), HE ZI *Terminalia chebula* (fruit: content scope = 1.04%–2.78%<sup>[5501, 5508]</sup>, content = 1.04%<sup>[5508]</sup>), HONG KUAI ZI *Chamaenerion angustifolium* [Syn. *Epilobium angustifolium*], HU LU BA *Trigonella foenum-graecum*, HU TAO YE *Juglans regia*, HU ZHANG *Polygonum cuspidatum*, HUA XIANG SHU YE *Platycarya strobilacea*, HUANG LIAN YA *Pistacia chinensis*, HUANG LU *Cotinus coggygria*, HUANG LU ZHI YE *Cotinus coggygria* var. *cinerea*, JI MU *Loropetalum chinense*, KUAN DONG HUA *Tussilago farfara*, LU JIAO QI SHU *Rhus typhina*, LU XIAN CAO *Pyrola calliantha* [Syn. *Pyrola rotundifolia* ssp. *chinensis*], LV BEI GUI HUA *Excoecaria cochinchinensis* var. *viridis*, MA SANG *Coriaria sinica* [Syn. *Coriaria nepalensis*], MA SANG YE *Coriaria sinica* [Syn. *Coriaria nepalensis*], MANG GUO *Mangifera indica*, MAO YAN CAO *Euphorbia lumulata* (whole herb), MEI GUI HUA *Rosa rugosa*, MO SHI ZI *Quercus infectoria* (parasitic bee: *Cynips gallae-tinctoriae*), MU DAN PI *Paeonia moutan* [Syn. *Paeonia suffruticosa*], NAN SUAN ZAO *Choerospondias axillaris* (dried ripe fruit: mean content of 5 origins = 0.063%<sup>[5508]</sup>), NI LUO HE CHENG LIU *Tamarix nilotica*, PU<sup>(2)</sup> TAO *Vitis*

*vinifera*, QIAN NIU ZI *Pharbitis nil*, QIAN QU CAI *Lythrum salicaria*, QING GUO *Canarium album* (dried ripe fruit: content = 0.216%)<sup>[5508]</sup>, QUAN SHEN *Polygonum bistorta*, SAN WEI ZHI FAN YING TAO *Eugenia sandwicensis*, SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*] (dried ripe fruit: mean content of 8 origins = 0.147%)<sup>[5508]</sup>, SHENG DI HONG JING TIAN *Rhodiola sacra*, SHI DI *Diospyros kaki* (calyx: mean content = 0.029%)<sup>[5508]</sup>, SHI LIU PI *Punica granatum*, SHU ZHANG LAO GUAN CAO *Geranium sibiricum*, SHUI JIE GU DAN *Epilobium hirsutum*, SU MU *Caesalpinia sappan*, TANG GU TE DA HUANG *Rheum tanguticum* (stem and rhizome: content = 0.93%)<sup>[5508]</sup>, WEI LING CAI *Potentilla chinensis*, WU JIU MU GEN PI *Sapium sebiferum*, WU JIU YE *Sapium sebiferum*, WU YA GUO *Dillenia indica*, XI FAN LIAN *Passiflora caerulea*, XI XI LI QI SHU *Rhus coriaria*, XIAN HE CAO *Agrimonia pilosa* var. *japonica*, XIANG SI ZI *Abrus precatorius*, XIN XING PU TAO *Syzygium cordatum*, YAN FU ZI *Rhus chinensis* [Syn. *Rhus semialata*], YANG MEI SHU PI *Myrica rubra* (bark: content = 0.026%), YE XIA ZHU *Phyllanthus urinaria* (whole herb: mean content = 0.115%)<sup>[5508]</sup>, YOU GAN MU PI *Phyllanthus emblica*, YOU GAN YE *Phyllanthus emblica*, YOU SE ZI JIN NIU *Ardisia colorata* (fruit), YUE JI HUA *Rosa chinensis*, ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (stem and rhizome: content = 0.042%)<sup>[5508]</sup>, ZHANG YE DA HUANG *Rheum palmatum* (stem and rhizome: content = 0.30%)<sup>[5508]</sup>, ZHU HONG SHI *Diospyros cinnabarina*, ZI WEI HUA *Lagerstroemia indica*., ZONG LV PI *Trachycarpus fortunei* (petiole and fibre of sheath, roasted petiole: mean content of 5 origins = 0.029%)<sup>[5508]</sup>, occurs in many plants. Ref: 2, 4, 5, 6, 283, 297, 658, 660, 3802, 4163, 4186, 4244, 4445, 4543, 4695, 4767, 4893, 5034, 5038, 5247, 5250, 5375, 5501, 5508.



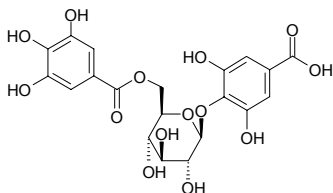
#### 8096 Gallic acid-3-O-(6'-O-galloyl)glucoside

[87087-61-4] C<sub>20</sub>H<sub>20</sub>O<sub>14</sub> (484.37). Source: AN MO LE *Phyllanthus emblica* (branch and leaf)<sup>[3094]</sup>, DA HUANG *Rheum officinale*, TANG GU TE DA HUANG *Rheum tanguticum*, ZHANG YE DA HUANG *Rheum palmatum*. Ref: 2, 660, 3094.



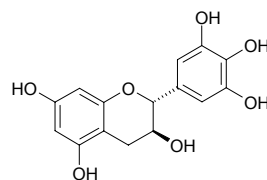
#### 8097 Gallic acid-4-O-(6'-O-galloyl)-glucoside

[87087-62-5] C<sub>20</sub>H<sub>20</sub>O<sub>14</sub> (484.37). Source: DA HUANG *Rheum officinale*, ZHANG YE DA HUANG *Rheum palmatum*, TANG GU TE DA HUANG *Rheum tanguticum*. Ref: 2, 660.



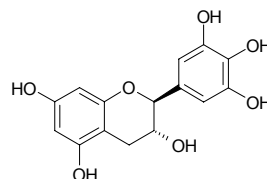
#### 8098 (+)-Gallocatechin

[970-73-0] C<sub>15</sub>H<sub>14</sub>O<sub>7</sub> (306.27). Yellow powder, mp 188~190°C, [α]<sub>D</sub><sup>20</sup> = -80° (c = 0.5, CHCl<sub>3</sub>), mp (+) 185~188°C, (-) 218°C (dec). Pharm: Inhibitory activity against NFAT transcription (IC<sub>50</sub> = (24.5±0.9) μmol/L, positive control Cyclosporin A, IC<sub>50</sub> = (0.29±0.01) μmol/L)<sup>[2536]</sup>; inhibits cancer cell invasion (MM1 cells, *in vitro*, 10 μg/mL, InRt = 24.2%)<sup>[4329]</sup>. Source: AN MO LE *Phyllanthus emblica* (branch and leaf)<sup>[3094]</sup>, BAI GUO YE *Ginkgo biloba*, CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], HUA CHA BIAO *Ribes fasciculatum* var. *chinense*. Ref: 6, 2536, 3094, 4329.



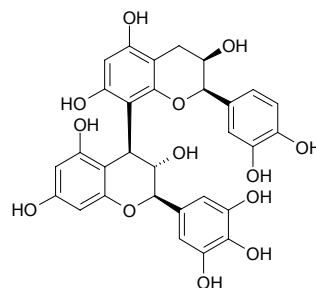
#### 8099 (-)-Gallocatechin

C<sub>15</sub>H<sub>14</sub>O<sub>7</sub> (306.27). Red amorphous powder, [α]<sub>D</sub> = -5.4° (c = 0.5, MeOH). Source: XIAO GUO YE *Jiao Musa acuminata* (fruit). Ref: 3913.



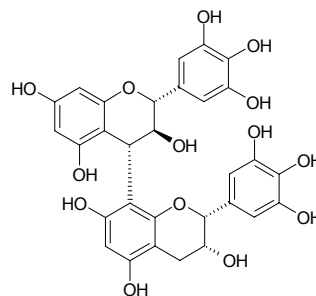
#### 8100 Gallocatechin-(4α→8)epicatechin

[79199-56-7] C<sub>30</sub>H<sub>26</sub>O<sub>13</sub> (594.53). mp 223~227°C. Source: KUN MING SHAN HAI TANG *Tripterygium hypoglaucum*. Ref: 612.



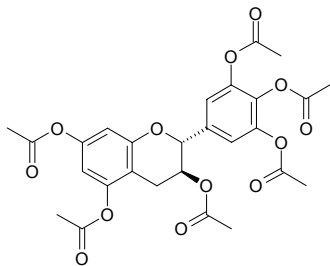
#### 8101 Gallocatechin-(4α→8)-epigallocatechin

C<sub>30</sub>H<sub>26</sub>O<sub>14</sub> (610.53). Source: SAN XIAO CAO *Trifolium repens* (flower). Ref: 3970.

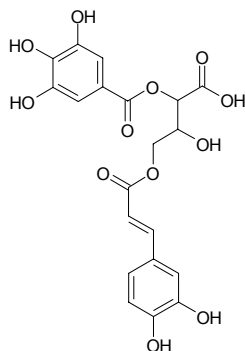


**8102 (+)-Gallocatechin-hexacetate**

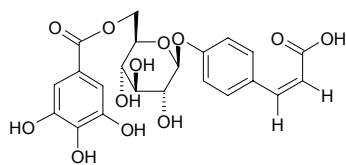
$C_{27}H_{26}O_{13}$  (558.50). Source: BAI GUO *Ginkgo biloba*. Ref: 2.

**8103 (-)-2-Galloyl-4-(E)-caffeoyl-L-threonic acid**

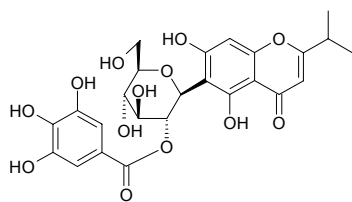
$C_{20}H_{18}O_{12}$  (450.36). Dark brown amorphous powder, mp 128–130°C,  $[\alpha]_D^{20} = -27^\circ$  ( $c = 0.09$ , MeOH). Source: DENG TAI SHU *Cornus controversa* [Syn. *Bothrocaryum controversum*] (leaf). Ref: 3918.

**8104 4-O-(6'-O-Galloyl-β-D-glucopyranosyl)-cis-p-coumaric acid**

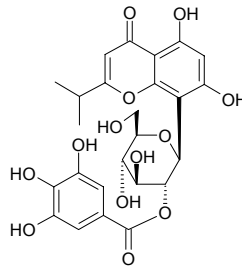
$C_{22}H_{22}O_{12}$  (478.41). White amorphous powder,  $[\alpha]_D = -14.3^\circ$  ( $c = 1.1$ , MeOH). Source: *Monochaetum multijlorum* (leaf). Ref: 5185.

**8105 6-β-C-(2'-Galloylglucopyranosyl)-5,7-dihydroxy-2-isopropylchromone**

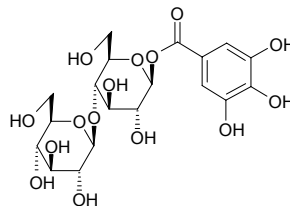
$C_{25}H_{26}O_{13}$  (534.48). Colorless amorphous powder,  $[\alpha]_D^{21} = -93.1^\circ$  ( $c = 2.50$ , MeOH). Source: GANG SONG *Baeckea frutescens*. Ref: 1895.

**8106 8-β-C-(2'-Galloylglucopyranosyl)-5,7-dihydroxy-2-isopropylchromone**

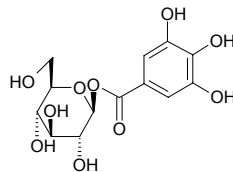
$C_{25}H_{26}O_{13}$  (534.48). Colorless amorphous powder.  $[\alpha]_D^{21} = -136.9^\circ$  ( $c = 2.53$ , MeOH). Source: GANG SONG *Baeckea frutescens*. Ref: 1895.

**8107 1-Galloyl-β-D-glucopyranosyl-(1→4)-β-D-galactopyranoside**

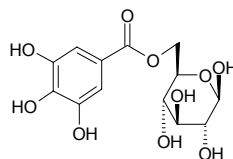
$C_{19}H_{26}O_{15}$  (494.41). Oil,  $[\alpha]_D^{25} = +7.2^\circ$  ( $c = 0.10$ , MeOH). Pharm: Antifungal (*Candida albicans* ATCC2091, MIC > 200μg/mL, control Amphotericin B, MIC = 1μg/mL; *Candida albicans* 32, MIC > 200μg/mL, Amphotericin B, MIC = 4μg/mL; *Candida albicans* 19, MIC = 100μg/mL, Amphotericin B, MIC = 2μg/mL); cytotoxic inactive (MIC > 200μg/mL); antibacterial inactive. Source: *Baseonema acuminatum* (leaf). Ref: 5021.

**8108 1-O-Galloyl-glucose**

Glucogallin  $C_{13}H_{16}O_{10}$  (332.27). mp 212°C (dec); mp ( $\alpha$ ) 179–181°C, ( $\beta$ ) 207. Source: AN MO LE *Phyllanthus emblica* (fruit juice, branch and leaf)<sup>[3094]</sup>, BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (fresh fruit: yield = 0.0056%fw)<sup>[4695]</sup>, DA HUANG *Rheum officinale*, HE ZI *Terminalia chebula*, YOU GAN MU PI *Phyllanthus emblica*, YOU GAN YE *Phyllanthus emblica*, TANG GU TE DA HUANG *Rheum tanguticum*, ZHANG YE DA HUANG *Rheum palmatum*. Ref: 6, 660, 3094, 4695.

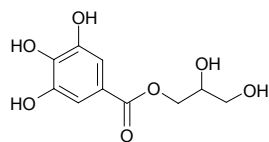
**8109 6-O-Galloyl-glucose**

$C_{13}H_{16}O_{10}$  (332.27). mp 166°C (dec). Source: AN MO LE *Phyllanthus emblica* (root)<sup>[3065]</sup>, CAO YUAN LAO GUAN CAO *Geranium pratense*, DA HUANG *Rheum officinale*, ZHANG YE DA HUANG *Rheum palmatum*, TANG GU TE DA HUANG *Rheum tanguticum*, QUAN SHEN *Polygonum bistorta*. Ref: 2, 660, 3065.

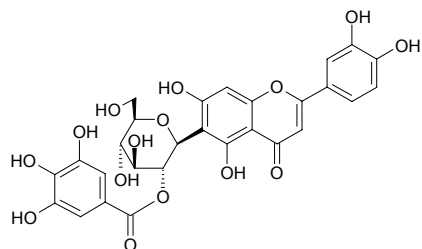


**8110 1-O-Galloyl-glycerol**

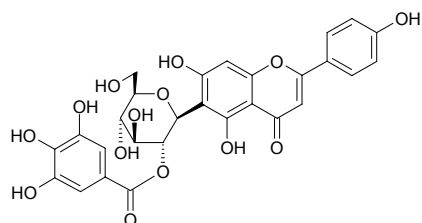
$C_{10}H_{12}O_7$  (244.20). Source: DA HUANG *Rheum officinale*. Ref: 2.

**8111 2''-O-Galloylisorientin**

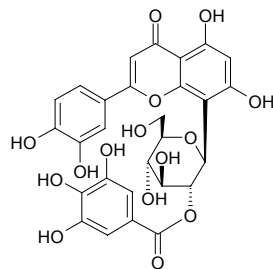
$C_{28}H_{24}O_{15}$  (600.49). Yellow amorphous powder,  $[\alpha]_D^{20} = -174^\circ$  ( $c = 0.13$ , methanol). Source: SHEN YE TIAN ZHU KUI *Pelargonium reniforme*. Ref: 1994.

**8112 2''-O-Galloylisovitexin**

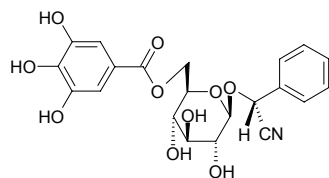
$C_{28}H_{24}O_{14}$  (584.50). Yellow amorphous powder,  $[\alpha]_D^{20} = -165^\circ$  ( $c = 0.07$ , methanol). Source: SHEN YE TIAN ZHU KUI *Pelargonium reniforme*. Ref: 1994.

**8113 2''-O-Galloylorientin**

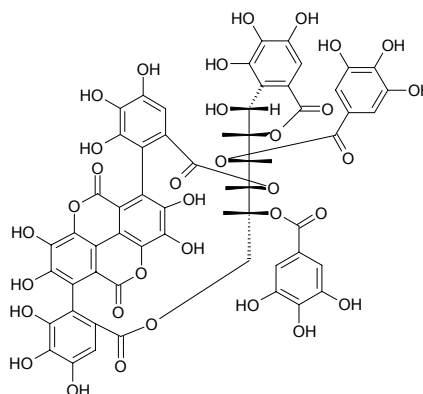
$C_{28}H_{24}O_{15}$  (600.49). Yellow amorphous powder,  $[\alpha]_D^{20} = -228.7^\circ$  ( $c = 0.15$ , methanol). Source: SHEN YE TIAN ZHU KUI *Pelargonium reniforme*. Ref: 1994.

**8114 6'-O-Galloylprunasin**

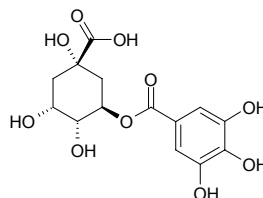
$C_{21}H_{21}NO_{10}$  (447.40). White amorphous powder,  $[\alpha]_D = -17.0^\circ$  ( $c = 1.9$ , MeOH). Source: *Monochaetum multiflorum* (leaf). Ref: 5185.

**8115 5-O-Galloylpunicacortein D**

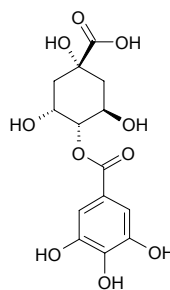
$C_{59}H_{42}O_{34}$  (1294.97). Pale yellow amorphous powder. Source: SHI LIU XIN CAI *Punica granatum*. Ref: 1942.

**8116 3-O-Galloyl quinic acid**

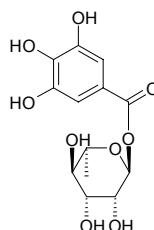
$C_{14}H_{16}O_{10}$  (344.28). Source: BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (fresh fruit: yield = 0.011%fw). Ref: 4695.

**8117 4-O-Galloyl quinic acid**

$C_{14}H_{16}O_{10}$  (344.28). Source: BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (fresh fruit: yield = 0.0019%fw). Ref: 4695.

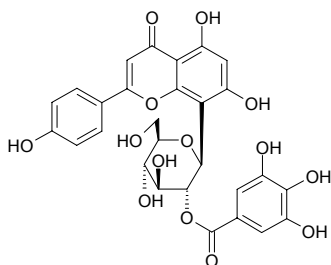
**8118 1-O-Galloyl-α-L-rhamnose**

$C_{13}H_{16}O_9$  (316.27). Source: HONG HUA QI *Acer rubrum*. Ref: 2419.

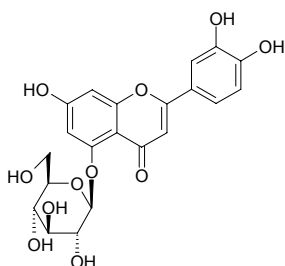


**8119 2''-O-Galloylvitexin**

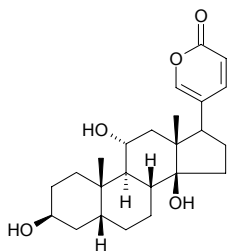
$C_{28}H_{24}O_{14}$  (584.50). Yellow amorphous powder,  $[\alpha]_D^{20} = -235.5^\circ$  ( $c = 0.11$ , methanol). Source: SHEN YE TIAN ZHU KUI *Pelargonium reniforme*. Ref: 1994.

**8120 Galuteolin**

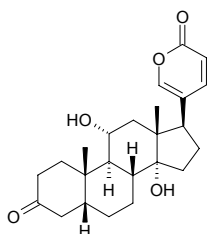
[20344-46-1]  $C_{21}H_{20}O_{11}$  (448.39). mp 260~263°C. Source: LIAN ZI XIN *Nelumbo nucifera*, WEN JING *Equisetum arvense*. Ref: 6.

**8121 Gamabufogenin**

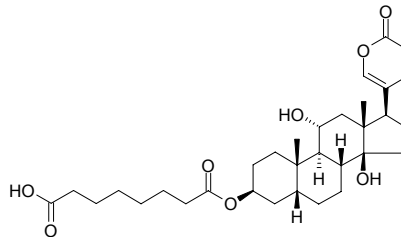
Gamabufotalin [465-11-2]  $C_{24}H_{34}O_5$  (402.54). mp 261~263°C (dec). Pharm: Cytotoxic (*in vitro*, KB,  $IC_{50} = 0.75\mu\text{g/mL}$ ; HL-60,  $IC_{50} = 0.014\mu\text{g/mL}$ ; MH-60,  $IC_{50} > 25\mu\text{g/mL}$ )<sup>[3082]</sup>. Source: CHAN SU *Bufo bufo gargarizans* (dried secretion: content = 0.22%<sup>[5508]</sup>); *Bufo melanostictus* (dried secretion: content = 0.01%<sup>[5508]</sup>). Ref: 2, 6, 3082, 5508.

**8122 Gamabufotalin**

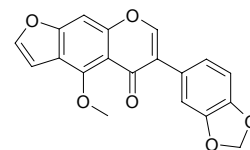
$C_{24}H_{32}O_5$  (400.52). mp 263~265°C. Source: CHAN PI *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 6.

**8123 Gamabufotalin-3-suberate**

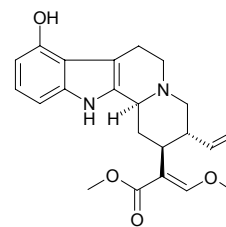
$C_{32}H_{46}O_8$  (558.72). Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 6.

**8124 Gamatin**

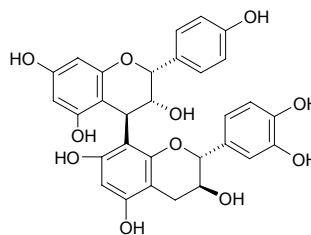
[479-85-6]  $C_{19}H_{12}O_6$  (336.30). mp 233~234°C. Source: SHUI LIU DOU *Pongamia pinnata*. Ref: 6.

**8125 Gambireine**

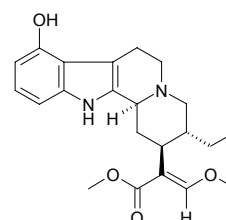
$C_{22}H_{26}N_2O_4$  (382.46). Source: CHANG HUA GOU TENG *Uncaria longiflora*, HOU YE GOU TENG *Uncaria callophylla*. Ref: 5341.

**8126 Gambiriin C**

[76236-89-0]  $C_{30}H_{26}O_{11}$  (562.54). Pharm: Tanning agent. Source: ER CHA GOU TENG *Uncaria gambir*. Ref: 658.

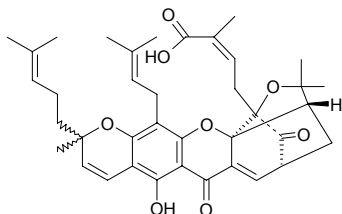
**8127 Gambirine**

[29472-77-3]  $C_{22}H_{28}N_2O_4$  (384.48). mp 163~165°C,  $[\alpha]_D = +29^\circ$  (chloroform). Pharm: Uterine stimulant. Source: ER CHA GOU TENG *Uncaria gambir*, HOU YE GOU TENG *Uncaria callophylla*. Ref: 6, 660, 661, 1521.

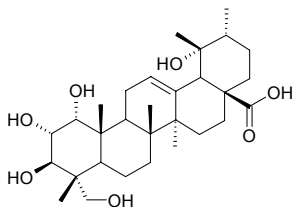


**8128 Gambogic acid**

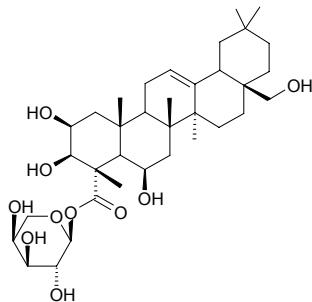
$\beta$ -Guttiferin [2752-65-0]  $C_{38}H_{44}O_8$  (628.73). Yellow amorphous resin; pyridine salt Crystals, mp 147~149°C. **Pharm:** Antineoplastic (mus, EAC, EC = 5mg/kg,  $S_{180}$ , InRt = 61%~79%); antiprotozoal (non-pathogenicity, *in vitro*); cytotoxic (cultural hmn liver cancer cells and HeLa, 4 $\mu$ g/mL); laxative (mus). **Source:** TENG HUANG *Garcinia morella* (dried balsam: content scope of 9 batch samples = 19.70%~51.05%, mean content = 33.84%)<sup>[5508]</sup>, TENG HUANG SHU *Garcinia hanburyi*<sup>[661]</sup>. **Ref:** 661, 5508.

**8129 Gamboukokoensin A**

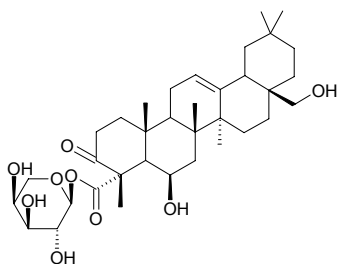
1 $\alpha$ ,2 $\alpha$ ,3 $\beta$ ,19 $\alpha$ ,23-Pentahydroxyurs-12-en-28-oic acid  $C_{30}H_{48}O_7$  (520.71). White powder, mp > 300°C. **Source:** *Gambeya boukokoensis*. **Ref:** 3463.

**8130 Gamboukokoenside A**

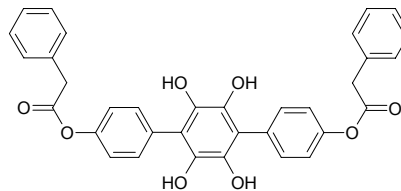
2 $\beta$ ,3 $\beta$ ,6 $\beta$ ,28-Tetrahydroxyolean-12-en-23-oic acid 23-*O*- $\alpha$ -L-arabinopyranosyl ester  $C_{35}H_{56}O_{10}$  (636.83). White powder, mp > 300°C. **Source:** *Gambeya boukokoensis*. **Ref:** 3463.

**8131 Gamboukokoenside B**

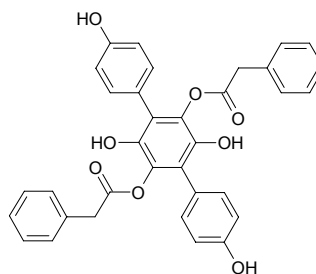
6 $\beta$ ,28-Dihydroxy-3-oxoolean-12-en-23-oic acid 23-*O*- $\alpha$ -L-arabinopyranosyl ester  $C_{35}H_{54}O_9$  (618.82). White powder, mp > 300°C. **Source:** *Gambeya boukokoensis*. **Ref:** 3463.

**8132 Ganbajunin C**

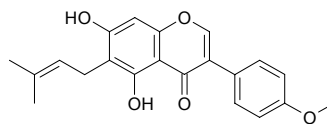
$C_{34}H_{26}O_8$  (562.58). **Source:** JIN HUANG GE JUN *Thelephora aurantiotincta*. **Ref:** 3423.

**8133 Ganbajunin E**

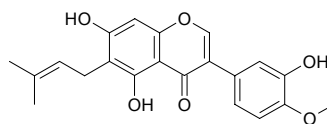
$C_{34}H_{26}O_8$  (562.58). **Source:** JIN HUANG GE JUN *Thelephora aurantiotincta*. **Ref:** 3423.

**8134 Gancaonin A**

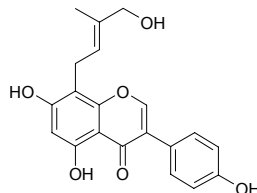
$C_{21}H_{20}O_5$  (352.39). **Source:** GAN CAO *Glycyrrhiza uralensis*. **Ref:** 660.

**8135 Gancaonin B**

[124596-86-7]  $C_{21}H_{20}O_6$  (368.39). **Source:** GAN CAO *Glycyrrhiza uralensis*. **Ref:** 660.

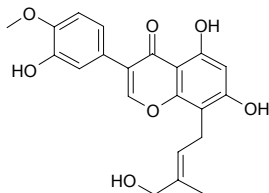
**8136 Gancaonin C**

[124596-87-8]  $C_{20}H_{18}O_6$  (354.36). **Pharm:** Antibacterial (*Escherichia coli*, MIA = 0.10 $\mu$ g, control Chloramphenicol, MIA = 0.001 $\mu$ g; *Bacillus subtilis*, MIA = 0.05 $\mu$ g, Chloramphenicol, MIA = 0.001 $\mu$ g; *Staphylococcus aureus*, MIA = 0.05 $\mu$ g, Chloramphenicol, MIA = 0.001 $\mu$ g)<sup>[3785]</sup>; antifungal (*Candida mycoderma*, MIA = 0.05 $\mu$ g, Miconazole = MIA = 0.0001 $\mu$ g)<sup>[3785]</sup>; antioxidant (DPPH scavenger, TLC detection limit = 0.5 $\mu$ g, IC<sub>50</sub> = 610 $\mu$ g/mL; control Quercetin, TLC detection limit < 0.05 $\mu$ g, IC<sub>50</sub> = 7 $\mu$ g/mL; Gallic acid, TLC detection limit < 0.05 $\mu$ g, IC<sub>50</sub> = 4 $\mu$ g/mL; Ascorbic acid, TLC detection limit < 0.10 $\mu$ g, IC<sub>50</sub> = 18 $\mu$ g/mL)<sup>[3785]</sup>. **Source:** GAN CAO *Glycyrrhiza uralensis*, *Bolusanthus speciosus* (root wood)<sup>[3785]</sup>. **Ref:** 660, 2431, 3785.

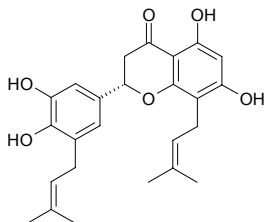


**8137 Gancaonin D**

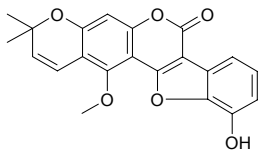
[124596-88-9] C<sub>21</sub>H<sub>20</sub>O<sub>7</sub> (384.39). Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 660.

**8138 Gancaonin E**

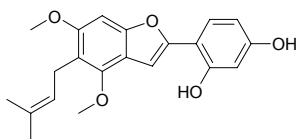
[124596-89-0] C<sub>25</sub>H<sub>28</sub>O<sub>6</sub> (424.50). Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 660.

**8139 Gancaonin F**

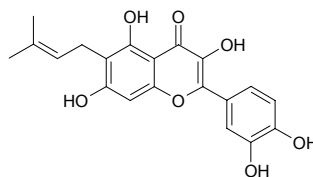
[126716-33-4] C<sub>21</sub>H<sub>16</sub>O<sub>6</sub> (364.36). Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 660.

**8140 Gancaonin I**

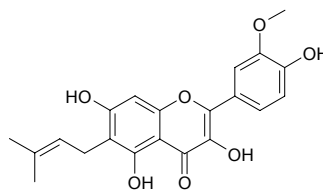
C<sub>21</sub>H<sub>22</sub>O<sub>5</sub> (354.41). Pharm: Antibacterial (*Enterococcus faecalis* JCM7783 (VSE) (= ATCC19434), MIC = 3.13 μg/mL, control Linezolid, MIC = 1.56 μg/mL; *Enterococcus faecalis* JU1856 (VRE, VanA), MIC = 3.13 μg/mL, Linezolid, MIC = 0.78 μg/mL; *Enterococcus faecalis* JU1782 (VRE, VanB), MIC = 3.13 μg/mL, Linezolid, MIC = 0.78 μg/mL; *Enterococcus faecium* JCM5804 (VSE) (= ATCC 29212), MIC = 6.25 μg/mL, Linezolid, MIC = 1.56 μg/mL; *Enterococcus faecium* JU1858 (VRE, VanA), MIC = 3.13 μg/mL, Linezolid, MIC = 0.78 μg/mL; *Enterococcus faecium* JU1777 (VRE, VanB), MIC = 3.13 μg/mL, Linezolid, MIC = 1.56 μg/mL; *Enterococcus gallinarum* JU2786 (VRE, VanC), MIC = 3.13 μg/mL, Linezolid, MIC = 0.78 μg/mL; *Staphylococcus aureus* JCM2874 (MSSA) (= ATCC29213), MIC = 3.13 μg/mL, Linezolid, MIC = 1.56 μg/mL; *Staphylococcus aureus* (MRSA, 10 strains), MIC = 3.13 μg/mL, Linezolid, MIC = 0.78 μg/mL; *Staphylococcus aureus* (MRSA, 8 strains), mean MIC<sub>80</sub> = 3.13 μg/mL, Linezolid, mean MIC<sub>80</sub> = 0.78 μg/mL)<sup>[5007]</sup>. Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 5007.

**8141 Gancaonin P**

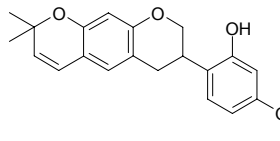
C<sub>20</sub>H<sub>18</sub>O<sub>7</sub> (370.36). Pharm: Aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40 μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4 μmol/L)<sup>[3090]</sup>. Source: GOU SHU *Broussonetia papyrifera*. Ref: 3090.

**8142 Gancaonin P-3'-methylether**

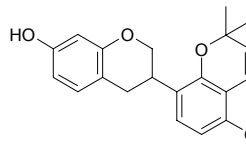
3,5,7,4'-Tetrahydroxy-3'-methoxy-6-isoprenyl flavone C<sub>21</sub>H<sub>20</sub>O<sub>7</sub> (384.39). Yellow lamellar Crystals. mp 160–162°C. Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 275, 660.

**8143 Gancaonin X**

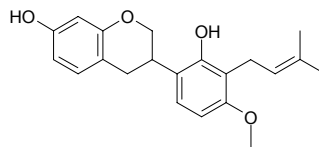
C<sub>21</sub>H<sub>22</sub>O<sub>4</sub> (338.41). Source: GAN CAO *Glycyrrhiza Uralensis*. Ref: 2431.

**8144 Gancaonin Y**

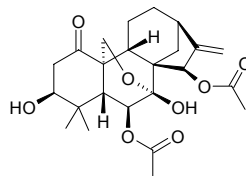
C<sub>21</sub>H<sub>22</sub>O<sub>4</sub> (338.41). Source: *Glycyrrhiza* sp. Ref: 2431.

**8145 Gancaonin Z**

C<sub>21</sub>H<sub>24</sub>O<sub>4</sub> (340.42). Source: *Glycyrrhiza* sp. Ref: 2431.

**8146 Ganervosin A**

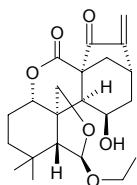
C<sub>24</sub>H<sub>32</sub>O<sub>8</sub> (448.52). mp 224–226°C. Source: XIAN MAI XIANG CHA CAI *Rabdosia nervosa*. Ref: 4067.



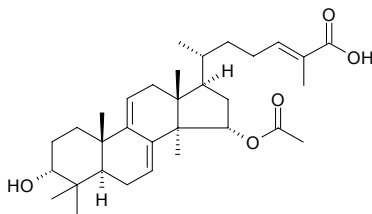


**8147 Ganerosin B**

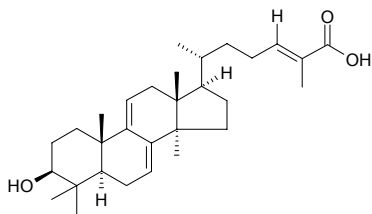
$C_{22}H_{30}O_6$  (390.48). mp 278~281°C,  $[\alpha]_D^{20} = -80^\circ$  ( $c = 0.23$ ,  $C_5H_5N$ ). Source: XIAN MAI XIANG CHA CAI *Rabdosia nervosa*. Ref: 4067.

**8148 Ganode-7,9-dien-ric acid X**

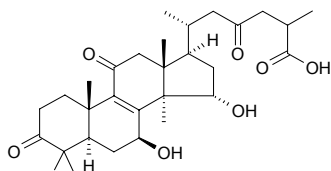
Ganoderic acid X [86377-53-9]  $C_{32}H_{48}O_5$  (512.74). Pharm: Cytotoxic (mus hepatosarcoma cell HTC, distinctly inhibits cell proliferation). Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8149 Ganode-7,9-dien-ric acid Y**

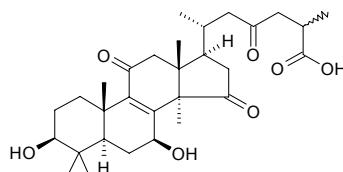
Ganoderic acid Y [86377-52-8]  $C_{30}H_{46}O_3$  (454.70). Pharm: Cytotoxic (mus hepatosarcoma cell HTC, distinctly inhibits cell proliferation). Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8150 Ganode-8-en-ric acid A**

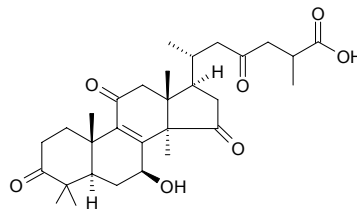
Ganoderic acid A [81907-62-2]  $C_{30}H_{44}O_7$  (516.68). Amorphous powder,  $[\alpha]_D^{27} = +153.8^\circ$  ( $c = 0.156$ ,  $CHCl_3$ ). Pharm: Analgesic (best dose = 3~5mg/kg sc, InRt of twister reaction = (30~60)%,  $p < 0.05$ ); protein opopanax ester transferase (FPT) selective inhibitor; cytotoxic inactive (mus lung carcinoma LLC cell,  $ED_{50} > 20\mu g/mL$ ; hmn carcinoma T-47D,  $ED_{50} > 20\mu g/mL$ ; S<sub>180</sub>,  $ED_{50} > 20\mu g/mL$ ; mus sarcoma Meth-A,  $ED_{50} > 20\mu g/mL$ ; control adriamycin,  $ED_{50} = 0.06\mu g/mL$ ,  $0.02\mu g/mL$ ,  $0.11\mu g/mL$ ,  $0.13\mu g/mL$ , respectively)<sup>[4204]</sup>. Source: LING ZHI *Ganoderma lucidum* (dried sporocarp: content scope of 6 origins = 0.036%~1.560%, mean content = 0.340%<sup>[5508]</sup>; yield = 0.002%<sup>[4603]</sup>). Ref: 188, 387, 2235, 4204, 4603, 5508.

**8151 Ganode-8-en-ric acid B**

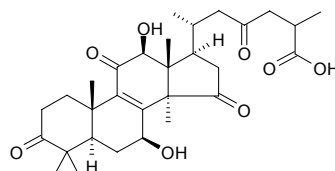
Ganoderic acid B [81907-61-1]  $C_{30}H_{44}O_7$  (516.68). Amorphous powder. Pharm: HIV-1 protease inhibitor ( $IC_{50} = 0.17\text{mmol/L}$ ); analgesic (best dose = 3~5mg/kg sc, InRt of twister reaction = (30~60)%,  $p < 0.05$ ). Source: LING ZHI *Ganoderma lucidum* (dried sporocarp: mean content of 2 origins = 0.15%<sup>[5508]</sup>; yield = 0.0015%<sup>[4603]</sup>). Ref: 2235, 4603, 5508.

**8152 Ganode-8-en-ric acid C<sub>1</sub>**

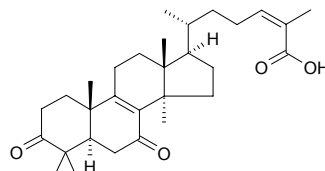
Ganoderic acid C<sub>1</sub> [95311-97-0]  $C_{30}H_{42}O_7$  (514.67). Crystals, mp 150~151°C,  $[\alpha]_D^{15} = +175.4^\circ$  ( $c = 0.057$ ,  $CHCl_3$ ). Pharm: HIV-1 protease inhibitor ( $IC_{50} = 0.18\text{~}0.32\text{mmol/L}$ ). Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8153 Ganode-8-en-ric acid D**

Ganoderic acid D [97653-94-6]  $C_{30}H_{42}O_8$  (530.66). Crystals (EtOAc), mp 201~203°C,  $[\alpha]_D^{22} = +185^\circ$  ( $c = 0.1$ , EtOH). Pharm: Antihistamine (inhibits histamine release, mus must cells *in vitro*, induced by ConA,  $0.4\mu g/mL$  InRt = 15%). Source: LING ZHI *Ganoderma lucidum* (dried sporocarp: content scope of 6 origins = 0.024%~0.686%, mean content = 0.334%<sup>[5508]</sup>). Ref: 2235, 5508.

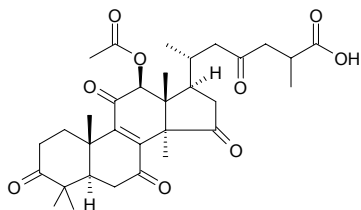
**8154 Ganode-8-en-ric acid DM**

Ganoderic acid DM  $C_{30}H_{44}O_4$  (468.68). Yellowish acicular crystals (chloroform-methanol), mp 203~205°C. Source: LING ZHI *Ganoderma lucidum* (sporocarp: yield = 0.0017%<sup>[4603]</sup>). Ref: 387, 4603.

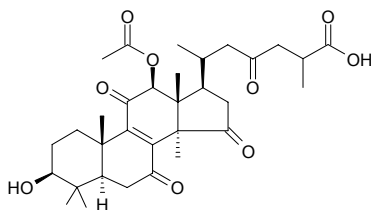


**8155 Ganode-8-en-ric acid F**

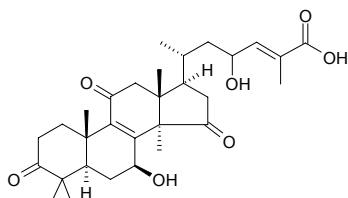
Ganoderic acid F [98665-15-7]  $C_{32}H_{42}O_9$  (570.69). **Pharm:** ACEI ( $IC_{50}$  = 4.7  $\mu$ mol/L); EBV-EA activation inhibitor (Raji cells *in vitro*, TPA-induced,  $IC_{50}$  = 293mol ratio/32pmol TPA, control  $\beta$ -Carotene,  $IC_{50}$  = 400mol ratio/32pmol TPA)<sup>[4737]</sup>. **Source:** LING ZHI *Ganoderma lucidum* (sporocarp: yield = 0.0097%dw). **Ref:** 2235, 4737.

**8156 Ganode-8-en-ric acid H**

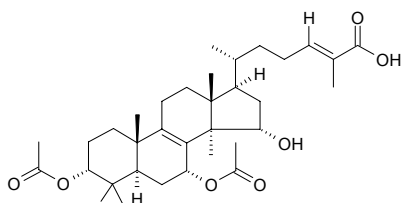
Ganoderic acid H  $C_{32}H_{44}O_9$  (572.70). **Pharm:** HIV-1 protease inhibitor ( $IC_{50}$  = 0.18–0.32mmol/L); analgesic (best dose = 3–5mg/kg sc, InRt of twister reaction = (30–60)%,  $p < 0.05$ ). **Source:** LING ZHI *Ganoderma lucidum* (sporocarp: yield = 0.0025%)<sup>[4603]</sup>. **Ref:** 2235, 4603.

**8157 Ganode-8-en-ric acid LM<sub>2</sub>**

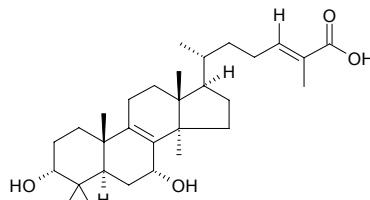
Ganoderic acid LM<sub>2</sub>  $C_{30}H_{42}O_7$  (514.67). mp 227–229°C,  $[\alpha]_D = +132^\circ$  **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 2235.

**8158 Ganode-8-en-ric acid Ma**

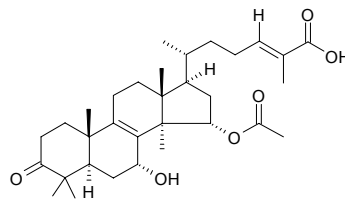
Ganoderic acid Ma  $C_{34}H_{52}O_7$  (572.79). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 1521.

**8159 Ganode-8-en-ric acid U**

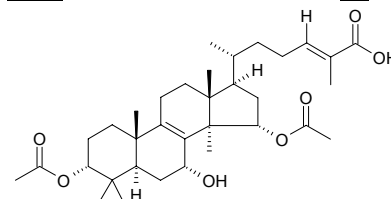
Ganoderic acid U  $C_{30}H_{48}O_4$  (472.71). Crystals, mp 196–199°C,  $[\alpha]_D = +35^\circ$ . **Pharm:** Cytotoxic (mus hepatosarcoma cell HTC, distinctly inhibits cell proliferation). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 2235.

**8160 Ganode-8-en-ric acid V**

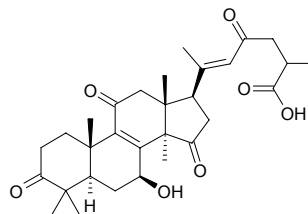
Ganoderic acid V [86377-50-6]  $C_{32}H_{48}O_6$  (528.74). **Pharm:** Cytotoxic (mus hepatosarcoma cell HTC, distinctly inhibits cell proliferation). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 2235.

**8161 Ganode-8-en-ric acid W**

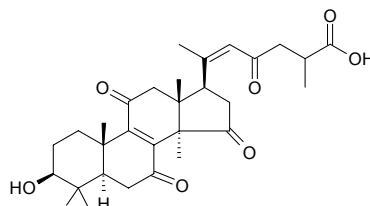
Ganoderic acid W  $C_{34}H_{52}O_7$  (572.79). Amorphous, mp 114–117°C. **Pharm:** Cytotoxic (mus hepatosarcoma cell HTC, distinctly inhibits cell proliferation). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 2235.

**8162 Ganoderenic acid D**

(*E*)-7 $\beta$ -Hydroxy-3,11,15,23-tetraoxolanosta-8,20(22)-dien-26-oic acid  $C_{30}H_{40}O_7$  (512.65). **Source:** *Ganoderma lipsiense*. **Ref:** 3972.

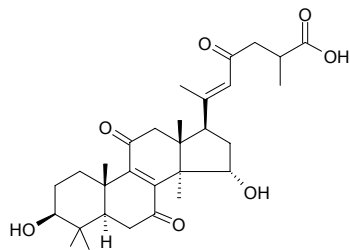
**8163 Ganoderenic acid H**

[120462-48-8]  $C_{30}H_{40}O_7$  (512.65). **Source:** SHU SHE *Ganoderma applanatum*. **Ref:** 1521.

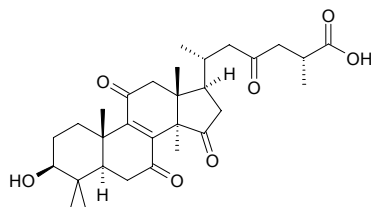


**8164 Ganoderenic acid I**

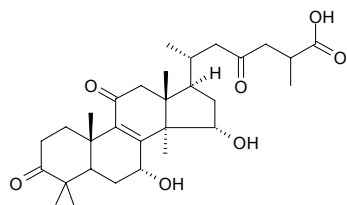
[120462-49-9] C<sub>30</sub>H<sub>42</sub>O<sub>7</sub> (514.67). Source: SHU SHE *Ganoderma applanatum*. Ref: 1521.

**8165 Ganoderic acid AM<sub>1</sub>**

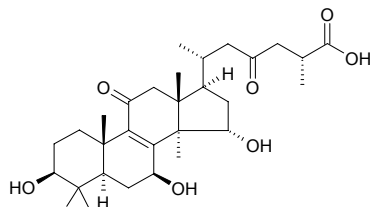
C<sub>30</sub>H<sub>42</sub>O<sub>7</sub> (514.67). Source: LING ZHI *Ganoderma lucidum* (sporocarp: yield = 0.0004%). Ref: 4603.

**8166 Ganoderic acid B<sub>8</sub>**

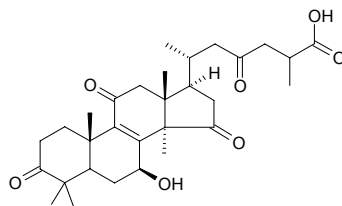
C<sub>30</sub>H<sub>44</sub>O<sub>7</sub> (516.68). Pharm: Cytotoxic inactive (mus lung carcinoma LLC cell, ED<sub>50</sub> > 20μg/mL; hmn carcinoma T-47D, ED<sub>50</sub> > 20μg/mL; mus sarcoma S<sub>180</sub>, ED<sub>50</sub> > 20μg/mL; mus sarcoma Meth-A, ED<sub>50</sub> > 20μg/mL; control Adriamycin, ED<sub>50</sub> = 0.06μg/mL, 0.02μg/mL, 0.11μg/mL, 0.13μg/mL, respectively). Source: LING ZHI *Ganoderma lucidum*. Ref: 4204.

**8167 Ganoderic acid C**

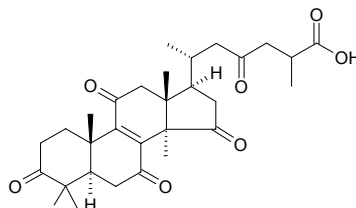
[98296-48-1] C<sub>30</sub>H<sub>46</sub>O<sub>7</sub> (518.70). Pharm: Antihistamine (inhibits histamine release, rat mastocyte *in vitro*, inhibits ConA-reduced histamine release, 0.4μg/mL, InRt = 15%); cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 0.144nmol/L; Hep2,2,15, IC<sub>50</sub> = 0.105nmol/L; CCM2, IC<sub>50</sub> = 31.3μmol/L; P<sub>388</sub>, IC<sub>50</sub> = 5μmol/L)<sup>[3081]</sup>. Source: LING ZHI *Ganoderma lucidum* (dried sporocarp: content scope of 6 origins = 0.106%~0.901%, mean content = 0.472%<sup>[5508]</sup>). Ref: 387, 1521, 3081, 5508.

**8168 Ganoderic acid C<sub>1</sub>**

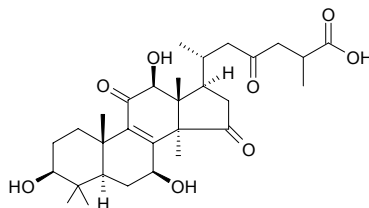
C<sub>30</sub>H<sub>42</sub>O<sub>7</sub> (514.67). Pharm: Cytotoxic inactive (mus lung carcinoma LLC cell, ED<sub>50</sub> > 20μg/mL; hmn carcinoma T47D, ED<sub>50</sub> > 20μg/mL; mus sarcoma S<sub>180</sub>, ED<sub>50</sub> > 20μg/mL; mus sarcoma Meth-A, ED<sub>50</sub> > 20μg/mL; control Adriamycin, ED<sub>50</sub> = 0.06μg/mL, 0.02μg/mL, 0.11μg/mL, 0.13μg/mL, respectively). Source: LING ZHI *Ganoderma lucidum*. Ref: 4204.

**8169 Ganoderic acid E**

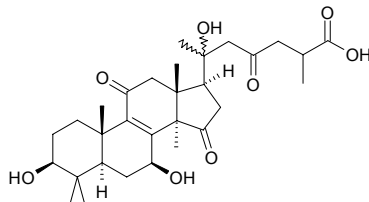
C<sub>30</sub>H<sub>40</sub>O<sub>7</sub> (512.65). Pharm: EBV-EA activation inhibitor (Raji cells *in vitro*, TPA-induced, IC<sub>50</sub> = 281mol ratio/32pmol TPA, control β-Carotene, IC<sub>50</sub> = 400mol ratio/32pmol TPA)<sup>[4737]</sup>. Source: LING ZHI *Ganoderma lucidum* (dried sporocarp: content scope of 6 origins = 0.342%~1.129%, mean content = 0.784%<sup>[5508]</sup>; yield = 0.0066%<sup>[4737]</sup>). Ref: 4737, 5508.

**8170 Ganode-8-en-ric acid G**

Ganoderic acid G [98665-22-6] C<sub>30</sub>H<sub>44</sub>O<sub>8</sub> (532.68). Plates (EtOAc-MeOH), mp 218~220°C, [α]<sub>D</sub><sup>22</sup> = +105.7° (c = 0.48, CHCl<sub>3</sub>). Pharm: Analgesic (best dose = 3~5mg/kg sc, InRt of twister reaction = (30~60)%, p < 0.05). Source: LING ZHI *Ganoderma lucidum* (sporocarp: yield = 0.005%<sup>[4603]</sup>). Ref: 2235, 4603.

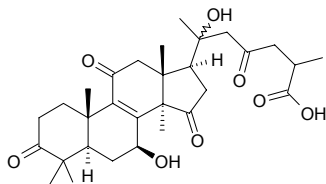
**8171 Ganoderic acid I**

C<sub>30</sub>H<sub>44</sub>O<sub>8</sub> (532.68). Source: LING ZHI *Ganoderma lucidum* (sporocarp: yield = 0.0013%). Ref: 4603.

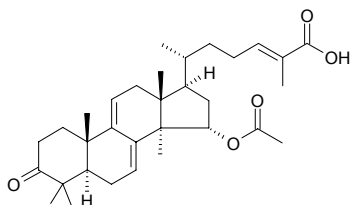


**8172 Ganoderic acid N**

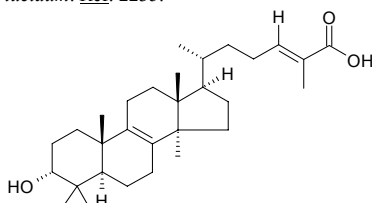
7 $\beta$ ,20-Dihydroxy-3,11,15,23-tetraoxolanost-8-en-26-oic acid C<sub>30</sub>H<sub>42</sub>O<sub>8</sub>  
(530.66). Source: *Ganoderma lipsiense*. Ref: 3972.

**8173 Ganoderic acid T-Q**

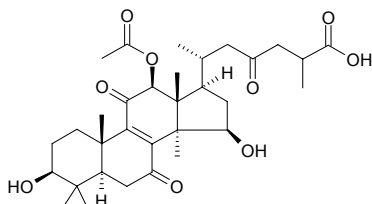
C<sub>32</sub>H<sub>46</sub>O<sub>5</sub> (510.72). Pharm: EBV-EA activation inhibitor (Raji cells *in vitro*, TPA-induced, IC<sub>50</sub> = 281mol ratio/32pmol TPA, control  $\beta$ -Carotene, IC<sub>50</sub> = 400mol ratio/32pmol TPA). Source: LING ZHI *Ganoderma lucidum* (sporocarp: yield = 0.0124%dw). Ref: 4737.

**8174 Ganoderic acid Z**

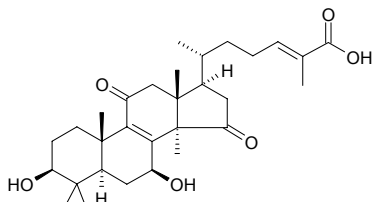
[86420-19-1] C<sub>30</sub>H<sub>48</sub>O<sub>3</sub> (456.72). Pharm: Cytotoxic (mus hepatosarcoma cell HTC, distinctly inhibits cell proliferation). Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8175 Ganoderic acid  $\alpha$** 

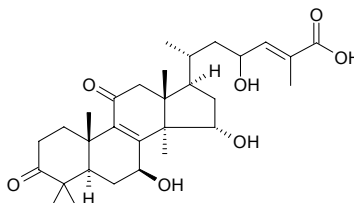
C<sub>32</sub>H<sub>46</sub>O<sub>9</sub> (574.72). [ $\alpha$ ]<sub>D</sub> = +55°. Pharm: HIV-1 protease inhibitor (IC<sub>50</sub> = 0.18–0.32mmol/L). Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8176 Ganoderic acid  $\beta$** 

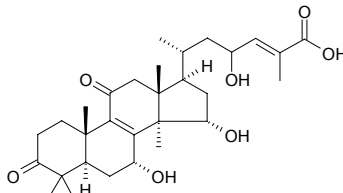
C<sub>30</sub>H<sub>44</sub>O<sub>6</sub> (500.68). mp 187–189°C, [ $\alpha$ ]<sub>D</sub> = +60°. Pharm: HIV-1 protease inhibitor (*in vitro*, IC<sub>50</sub> = 20 $\mu$ mol/L). Source: LING ZHI *Ganoderma lucidum*. Ref: 341, 2235.

**8177 Ganoderic acid  $\gamma$** 

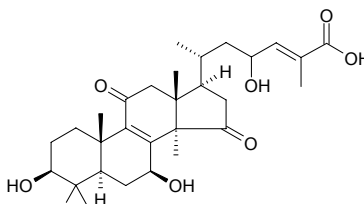
(7 $\beta$ ,15 $\alpha$ ,23S,24E)-7,15,23-Trihydroxy-3,11-dioxolanosta-8,24-dien-26-oic acid [294674-00-3] C<sub>30</sub>H<sub>44</sub>O<sub>7</sub> (516.68). mp 243–245°C, [ $\alpha$ ]<sub>D</sub> = +155.3°. Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8178 Ganoderic acid  $\delta$** 

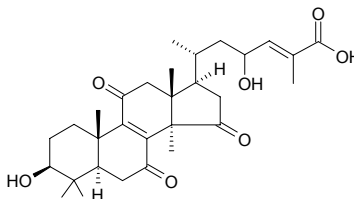
[294674-02-5] C<sub>30</sub>H<sub>44</sub>O<sub>7</sub> (516.68). [ $\alpha$ ]<sub>D</sub> = +160°. Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8179 Ganoderic acid  $\epsilon$** 

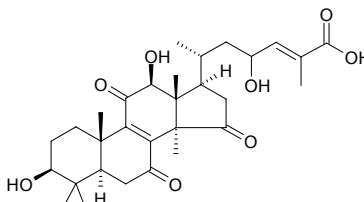
3,7,23-Trihydroxy-11,15-dioxolanosta-8,24-dien-26-oic acid [294674-05-8] C<sub>30</sub>H<sub>44</sub>O<sub>7</sub> (516.68). mp 249–251°C, [ $\alpha$ ]<sub>D</sub> = +153.3°. Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8180 Ganoderic acid  $\zeta$** 

3,23-Dihydroxy-7,11,15-trioxolanosta-8,24-dien-26-oic acid. [294674-09-2] C<sub>30</sub>H<sub>42</sub>O<sub>7</sub> (514.67). mp 143–145°C, [ $\alpha$ ]<sub>D</sub> = +213.3°. Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

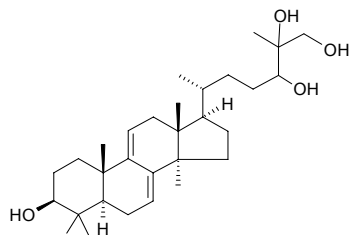
**8181 Ganoderic acid  $\theta$** 

C<sub>30</sub>H<sub>42</sub>O<sub>8</sub> (530.66). mp 131–133°C, [ $\alpha$ ]<sub>D</sub> = +71.3°. Source: LING ZHI *Ganoderma lucidum*. Ref: 255, 2235.

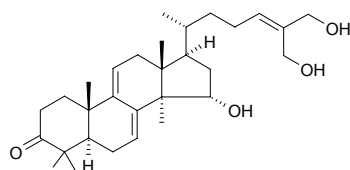


**8182 Ganoderiol A**

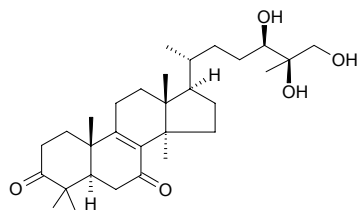
$C_{30}H_{50}O_4$  (474.73). Needles ( $CHCl_3$ ), mp 232–234°C,  $[\alpha]_D^{23} = +20^\circ$  ( $c = 0.1$ , EtOH). **Pharm:** HIV-1 protease inhibitor ( $IC_{50} = 0.18\text{--}0.32\text{mmol/L}$ ). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 2235.

**8183 Ganoderiol B**

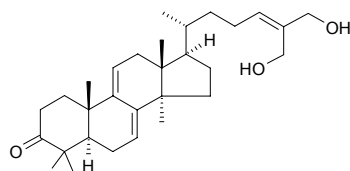
[106518-62-1]  $C_{30}H_{46}O_4$  (470.70). Amorphous powder. **Pharm:** HIV-1 protease inhibitor ( $IC_{50} = 0.17\text{mmol/L}$ ). **Source:** LING ZHI *Ganoderma lucidum* (sporocarp: yield = 0.00025%)<sup>[4603]</sup>. **Ref:** 2235, 4603.

**8184 Ganoderiol D**

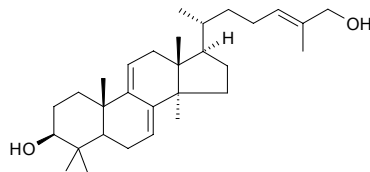
[114567-45-2]  $C_{30}H_{48}O_5$  (488.71). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 387.

**8185 Ganoderiol F**

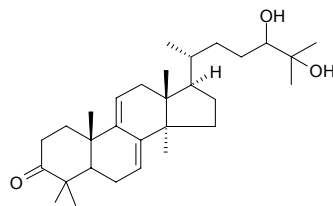
[114567-47-4]  $C_{30}H_{46}O_3$  (454.70). Yellowish plates ( $CHCl_3$ –MeOH), mp 116–120°C,  $[\alpha]_D^{21} = +42^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Anti-HIV-1 (MT-4 cell, inhibits cytotoxic effect induced by HIV-1,  $IC_{100} = 7.8\mu\text{g/mL}$  and this concentration is 50% of that of cytotoxic concentration only); HIV-1 protease inhibitor ( $IC_{50} = 0.18\text{--}0.32\text{mmol/L}$ ). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 2235.

**8186 Ganodermediol**

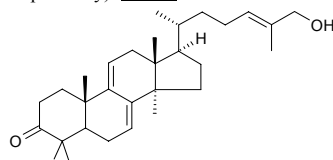
$C_{30}H_{48}O_2$  (440.72). **Pharm:** Cytotoxic (mus lung carcinoma LLC cell,  $ED_{50} > 20\mu\text{g/mL}$ ; hmn carcinoma T-47D,  $ED_{50} > 20\mu\text{g/mL}$ ; mus sarcoma S<sub>180</sub>,  $ED_{50} > 20\mu\text{g/mL}$ ; mus sarcoma Meth-A,  $ED_{50} = 10.3\mu\text{g/mL}$ ; control Adriamycin,  $ED_{50} = 0.06\mu\text{g/mL}$ ,  $0.02\mu\text{g/mL}$ ,  $0.11\mu\text{g/mL}$ ,  $0.13\mu\text{g/mL}$ , respectively). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 4204.

**8187 Ganodermanondiol**

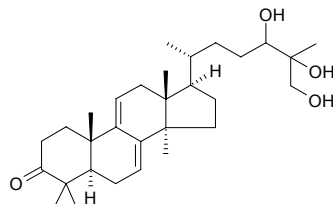
$C_{30}H_{48}O_3$  (456.72). **Pharm:** Cytotoxic (mus lung carcinoma LLC cell,  $ED_{50} = 14.0\mu\text{g/mL}$ ; hmn breast carcinoma T47D,  $ED_{50} = 4.7\mu\text{g/mL}$ ; mus sarcoma S<sub>180</sub>,  $ED_{50} = 11.0\mu\text{g/mL}$ ; mus sarcoma Meth-A,  $ED_{50} = 9.2\mu\text{g/mL}$ ; control Adriamycin,  $ED_{50} = 0.06\mu\text{g/mL}$ ,  $0.02\mu\text{g/mL}$ ,  $0.11\mu\text{g/mL}$ ,  $0.13\mu\text{g/mL}$ , respectively). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 4204.

**8188 Ganodermanonol**

$C_{30}H_{46}O_2$  (438.70). **Pharm:** Cytotoxic (mus lung carcinoma LLC cell,  $ED_{50} > 20\mu\text{g/mL}$ ; hmn breast carcinoma T47D,  $ED_{50} = 4.8\mu\text{g/mL}$ ; mus sarcoma S<sub>180</sub>,  $ED_{50} = 10.0\mu\text{g/mL}$ ; mus sarcoma Meth-A,  $ED_{50} = 2.8\mu\text{g/mL}$ ; control Adriamycin,  $ED_{50} = 0.06\mu\text{g/mL}$ ,  $0.02\mu\text{g/mL}$ ,  $0.11\mu\text{g/mL}$ ,  $0.13\mu\text{g/mL}$ , respectively). **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 4204.

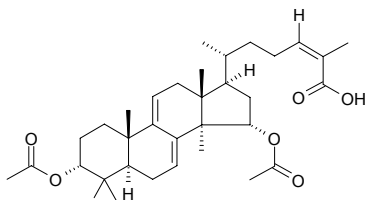
**8189 Ganodermanontriol**

[106518-63-2]  $C_{30}H_{48}O_4$  (472.71). Crystals, mp 168–170°C,  $[\alpha]_D^{24} = +41^\circ$  ( $c = 0.2$ , MeOH). **Pharm:** Anti-HIV-1 (MT-4 cell, inhibits cytotoxic effect induced by HIV-1,  $IC_{100} = 7.8\mu\text{g/mL}$  and this concentration is 50% of that of cytotoxic concentration only); cytotoxic inactive (mus lung carcinoma LLC cell,  $ED_{50} > 20\mu\text{g/mL}$ ; hmn carcinoma T47D,  $ED_{50} > 20\mu\text{g/mL}$ ; mus sarcoma S<sub>180</sub>,  $ED_{50} > 20\mu\text{g/mL}$ ; mus sarcoma Meth-A,  $ED_{50} > 20\mu\text{g/mL}$ ; control adriamycin,  $ED_{50} = 0.06\mu\text{g/mL}$ ,  $0.02\mu\text{g/mL}$ ,  $0.11\mu\text{g/mL}$ ,  $0.13\mu\text{g/mL}$ , respectively)<sup>[4204]</sup>. **Source:** LING ZHI *Ganoderma lucidum*. **Ref:** 2235, 4204.

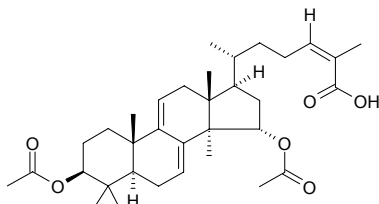


**8190 Ganodermic acid R**

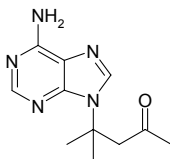
[108026-93-3] C<sub>34</sub>H<sub>50</sub>O<sub>6</sub> (554.77). Pharm: inhibits biosynthesis of cholesterol (inhibits absorption of cholesterol in foods). Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8191 Ganodermic acid S**

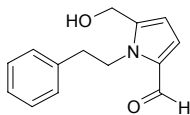
[112430-63-4] C<sub>34</sub>H<sub>50</sub>O<sub>6</sub> (554.77). Pharm: platelet aggregation inhibitor (2 μmol/L, InRt = 50%, 7.5~10 μmol/L, InRt = 100%, IC<sub>50</sub> = 2 μmol/L); inhibits biosynthesis of cholesterol (inhibits absorption of cholesterol in foods). Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8192 Ganoderpurine**

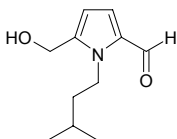
[133086-82-5] C<sub>11</sub>H<sub>15</sub>N<sub>5</sub>O (233.28). Oleaginous substance, mp 151~152°C. Source: BAO GAI LING ZHI *Ganoderma capense*. Ref: 164.

**8193 Ganodine**

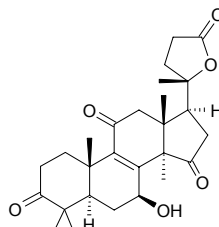
[133086-81-4] C<sub>14</sub>H<sub>15</sub>NO<sub>2</sub> (229.28). Source: BAO GAI LING ZHI *Ganoderma capense*. Ref: 164.

**8194 Ganoine**

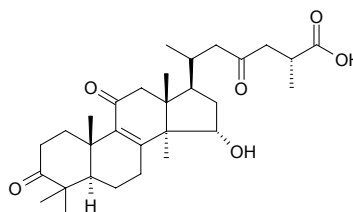
[133086-80-3] C<sub>11</sub>H<sub>17</sub>NO<sub>2</sub> (195.26). Oleaginous liquid. Source: BAO GAI LING ZHI *Ganoderma capense*. Ref: 164.

**8195 Ganolactone**

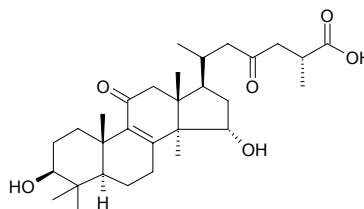
Lucidenolactone C<sub>27</sub>H<sub>36</sub>O<sub>6</sub> (456.58). White acicular Crystals, mp 294~296°C, [α]<sub>D</sub><sup>20</sup> = +6° (c = 0.1148, chloroform). Source: LING ZHI *Ganoderma lucidum*. Ref: 350, 3081.

**8196 Ganolucidic acid A**

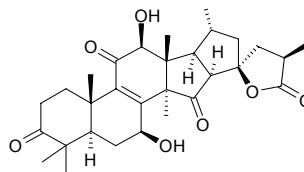
[98665-21-5] C<sub>30</sub>H<sub>44</sub>O<sub>6</sub> (500.68). Pharm: HIV-1 protease inhibitor (distinct effect). Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8197 Ganolucidic acid B**

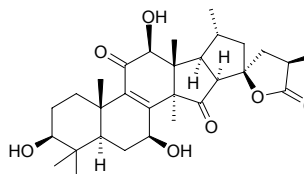
[98683-75-1] C<sub>30</sub>H<sub>46</sub>O<sub>6</sub> (502.70). Source: LING ZHI *Ganoderma lucidum*. Ref: 2235.

**8198 Ganosporelactone A**

C<sub>30</sub>H<sub>40</sub>O<sub>7</sub> (512.65). White acicular Crystals, mp 238~240°C, [α]<sub>D</sub><sup>13</sup> = +74.5° (c = 0.057, chloroform). Source: LING ZHI *Ganoderma lucidum*. Ref: 192.

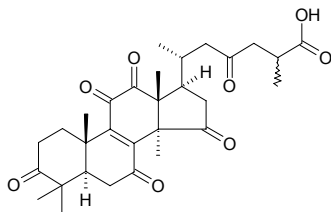
**8199 Ganosporelactone B**

C<sub>30</sub>H<sub>42</sub>O<sub>7</sub> (514.67). White acicular Crystals, mp 235~237°C, [α]<sub>D</sub><sup>12</sup> = +68.8° (c = 0.083, chloroform). Source: LING ZHI *Ganoderma lucidum*. Ref: 192.

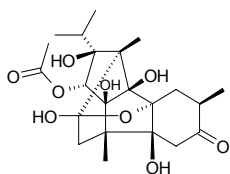


**8200 Ganosporeric acid A**

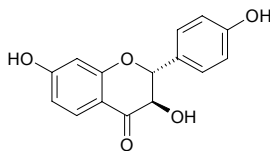
[135357-25-4] C<sub>30</sub>H<sub>38</sub>O<sub>8</sub> (526.63). Yellow acicular Crystals, mp 115~118°C, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = +48° (c = 0.1, chloroform). Source: LING ZHI *Ganoderma lucidum* (dried sporocarp: mean content of 2 origins = 0.14%<sup>[5508]</sup>) Ref: 188, 5508.

**8201 Garajonone**

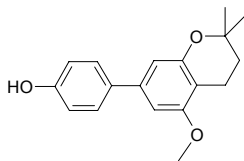
C<sub>22</sub>H<sub>32</sub>O<sub>9</sub> (440.49). Pharm: Antifeedant (*Spodoptera littoralis*, EC<sub>50</sub> > 23nmol/cm<sup>2</sup>, *Leptinotarsa decemlineata*, EC<sub>50</sub> > 23nmol/cm<sup>2</sup>). Source: YIN DU E LI *Persea indica* (aerial parts). Ref: 5128.

**8202 Garbanzol**

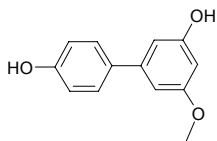
Aromadendrin-4',7-dimethyl ether [1226-22-8] C<sub>15</sub>H<sub>12</sub>O<sub>5</sub> (272.26). mp 189~190°C. Source: HUI HUI DOU *Cicer arietinum*, NING MENG AN YE *Eucalyptus citriodora*. Ref: 6, 1521.

**8203 Garcibenzopyran**

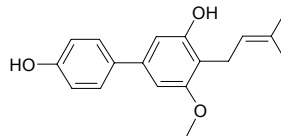
C<sub>18</sub>H<sub>20</sub>O<sub>3</sub> (284.36). Colorless amorphous powder, mp 82~83°C. Pharm: Cytotoxic (P<sub>388</sub> ED<sub>50</sub> = 3.98µg/mL, control Mithramycin ED<sub>50</sub> = 0.06µg/mL, HT29 ED<sub>50</sub> = 6.90µg/mL, control Mithramycin ED<sub>50</sub> = 0.08µg/mL). Source: TAI WAN LV DAO TENG HUANG *Garcinia linii*. Ref: 4094.

**8204 Garcibiphenyl A**

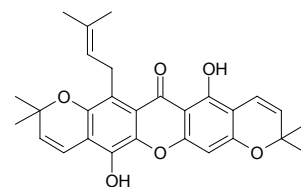
C<sub>17</sub>H<sub>12</sub>O<sub>3</sub> (216.24). Colorless oil. Pharm: Cytotoxic (P<sub>388</sub> ED<sub>50</sub> = 10.2µg/mL, control Mithramycin ED<sub>50</sub> = 0.06µg/mL, HT29 ED<sub>50</sub> = 13.5µg/mL, control Mithramycin ED<sub>50</sub> = 0.08µg/mL). Source: TAI WAN LV DAO TENG HUANG *Garcinia linii*. Ref: 4094.

**8205 Garcibiphenyl B**

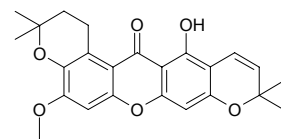
C<sub>18</sub>H<sub>20</sub>O<sub>3</sub> (284.36). Colorless oil. Pharm: Cytotoxic (P<sub>388</sub> ED<sub>50</sub> = 6.63µg/mL, control Mithramycin ED<sub>50</sub> = 0.06µg/mL, HT29 ED<sub>50</sub> = 12.7µg/mL, control Mithramycin ED<sub>50</sub> = 0.08µg/mL). Source: TAI WAN LV DAO TENG HUANG *Garcinia linii*. Ref: 4094.

**8206 Garcimangosone A**

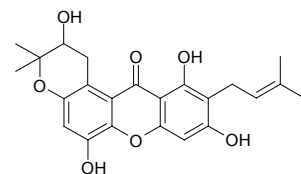
C<sub>28</sub>H<sub>28</sub>O<sub>6</sub> (460.53). Yellow powder, mp 143~145°C. Source: DAO NIAN ZI *Garcinia mangostana* (fruit hull). Ref: 3066.

**8207 Garcimangosone B**

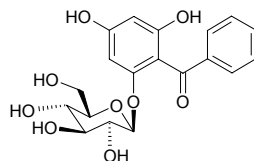
C<sub>24</sub>H<sub>24</sub>O<sub>6</sub> (408.46). Yellow powder, mp 136~138°C. Source: DAO NIAN ZI *Garcinia mangostana* (fruit hull). Ref: 3066.

**8208 Garcimangosone C**

C<sub>23</sub>H<sub>24</sub>O<sub>7</sub> (412.44). Yellow powder, mp 260~262°C. Source: DAO NIAN ZI *Garcinia mangostana* (fruit hull). Ref: 3066.

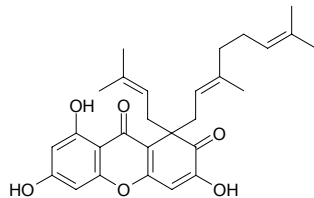
**8209 Garcimangosone D**

C<sub>19</sub>H<sub>20</sub>O<sub>9</sub> (392.37). Yellow powder, mp 136~138°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -64° (c = 0.5, MeOH). Source: DAO NIAN ZI *Garcinia mangostana* (fruit hull). Ref: 3066.

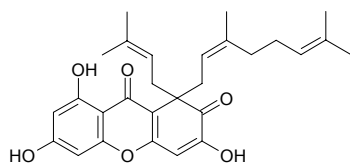


**8210 Garcinianone A**

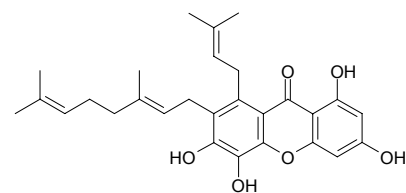
$C_{28}H_{32}O_6$  (464.56). Yellow oil,  $[\alpha]_D^{25} = 0^\circ$  ( $c = 0.48$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (BST,  $LD_{50} = 7.7\mu\text{mol/L}$ ; control Berberine,  $LD_{50} = 67\mu\text{mol/L}$ ); antioxidant (DPPH radical scavenger,  $IC_{50} = 107.4\mu\text{mol/L}$ ; control Catechin,  $IC_{50} = 2.53\mu\text{mol/L}$ ). **Source:** SHAN ZHU ZI *Garcinia multiflora* (stem: yield = 0.000042%dw). **Ref:** 4708.

**8211 Garcinianone B**

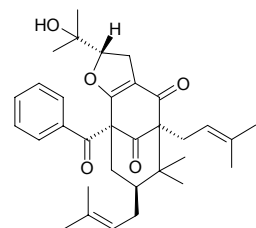
$C_{28}H_{32}O_6$  (464.56). Yellow oil,  $[\alpha]_D^{25} = 0^\circ$  ( $c = 0.21$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (BST,  $LD_{50} = 25.8\mu\text{mol/L}$ ; control Berberine,  $LD_{50} = 67\mu\text{mol/L}$ ); antioxidant (DPPH radical scavenger,  $IC_{50} = 144.8\mu\text{mol/L}$ ; control Catechin,  $IC_{50} = 2.53\mu\text{mol/L}$ ). **Source:** SHAN ZHU ZI *Garcinia multiflora* (stem: yield = 0.000036%dw). **Ref:** 4708.

**8212 Garciniaxanthone E**

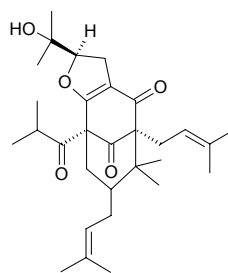
$C_{28}H_{32}O_6$  (464.56). **Pharm:** Neurite outgrowth enhancer (PC12D cells,  $10\mu\text{mol/L}$ , NGF-mediated neurite outgrowth, to enhance the ability of NGF, may be useful in the treatment of neurological disorders). **Source:** DA YE TENG HUANG *Garcinia xanthochymus* (wood). **Ref:** 4404.

**8213 Garcinielliptone K**

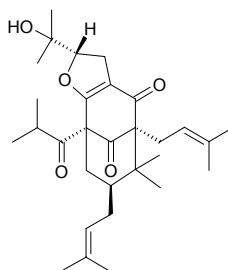
$2\alpha$ -Benzoyl-9,9-dimethyl-6 $\alpha$ ,8 $\beta$ -di-( $\gamma,\gamma$ -dimethylallyl)-3,4-[2 $\alpha$ -(2'-hydroxyisopropyl)-2,3-dihydrofuran]-8 $\alpha$ -H-cis-bicyclo[3.3.1]nona-3-ene-1,5-dione  $C_{33}H_{42}O_5$  (518.7). Colorless oil,  $[\alpha]_D = +27^\circ$  ( $c = 0.27$ ,  $CHCl_3$ ). **Source:** FU MU *Garcinia subelliptica* (seed: yield = 0.000027%fw). **Ref:** 4773.

**8214 Garcinielliptone L**

9,9-Dimethyl-6 $\alpha$ ,8 $\beta$ -di-( $\gamma,\gamma$ -dimethylallyl)-3,4-[2 $\beta$ -(2'-hydroxyisopropyl)-2,3-dihydrofuran]-2 $\alpha$ -(1-oxo-2-methylpropyl)-8 $\alpha$ -H-cis-bicyclo[3.3.1]nona-1,5-dione  $C_{30}H_{44}O_5$  (484.68). Colorless oil,  $[\alpha]_D = -41^\circ$  ( $c = 0.29$ ,  $CHCl_3$ ). **Pharm:** Anti-inflammatory (rat mast cells stimulated with  $10\mu\text{g/mL}$  compound 48/80, *in vitro*: inhibits release of  $\beta$ -glucuronidase,  $IC_{50} = 22.9\mu\text{mol/L}$ ; inhibits release of histamine,  $IC_{50} > 30\mu\text{mol/L}$ ; control Mepacrine, inhibits release of  $\beta$ -glucuronidase,  $IC_{50} = 13.7\mu\text{mol/L}$ ; inhibits release of histamine,  $IC_{50} = 23.3\mu\text{mol/L}$ ); anti-inflammatory (inhibits accumulation of  $NO_2^-$ , culture media of RAW264.7 macrophage-like cells in response to  $1\mu\text{g/mL}$  LPS,  $IC_{50} = 22.7\mu\text{mol/L}$ ; N9 microglial cells in response to lipopolysaccharide ( $10\text{ng/mL}$ )/IFN- $\gamma$  ( $10\text{U/mL}$ ),  $IC_{50} = 12.8\mu\text{mol/L}$ ; control *N*-(3-Aminomethyl)benzylacetamide, RAW264.7 cells,  $IC_{50} = 2.9\mu\text{mol/L}$ ; N9 cells,  $IC_{50} = 6.3\mu\text{mol/L}$ ). **Source:** FU MU *Garcinia subelliptica* (seed: yield = 0.00011%fw). **Ref:** 4773.

**8215 Garcinielliptone M**

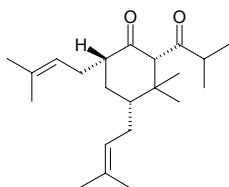
9,9-Dimethyl-6 $\alpha$ ,8 $\beta$ -di-( $\gamma,\gamma$ -dimethylallyl)-3,4-[2 $\beta$ -(2'-hydroxyisopropyl)-2,3-dihydrofuran]-2 $\alpha$ -(1-oxo-2-methylpropyl)-8 $\alpha$ -H-cis-bicyclo[3.3.1]nona-1,5-dione  $C_{30}H_{44}O_5$  (484.68). Colorless oil,  $[\alpha]_D = +73^\circ$  ( $c = 0.16$ ,  $CHCl_3$ ). **Pharm:** Anti-inflammatory (rat mast cells stimulated with  $10\mu\text{g/mL}$  compound 48/80, *in vitro*: inhibits release of  $\beta$ -glucuronidase,  $IC_{50} = 13.6\mu\text{mol/L}$ ; inhibits release of histamine,  $IC_{50} = 19.0\mu\text{mol/L}$ ; control Mepacrine, inhibits release of  $\beta$ -glucuronidase,  $IC_{50} = 13.7\mu\text{mol/L}$ ; inhibits release of histamine,  $IC_{50} = 23.3\mu\text{mol/L}$ ); anti-inflammatory (inhibits accumulation of  $NO_2^-$ , culture media of RAW264.7 macrophage-like cells in response to  $1\mu\text{g/mL}$  LPS,  $IC_{50} = 15.3\mu\text{mol/L}$ ; N9 microglial cells in response to lipopolysaccharide ( $10\text{ng/mL}$ )/IFN- $\gamma$  ( $10\text{U/mL}$ ),  $IC_{50} > 30\mu\text{mol/L}$ ; control *N*-(3-Aminomethyl)benzylacetamide, RAW264.7 cells,  $IC_{50} = 2.9\mu\text{mol/L}$ ; N9 cells,  $IC_{50} = 6.3\mu\text{mol/L}$ ). **Source:** FU MU *Garcinia subelliptica* (seed, yield = 0.00008%fw). **Ref:** 4773.



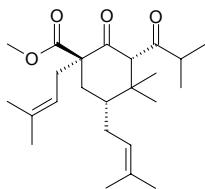


**8216 Garcinielliptone N**

3,3-Dimethyl-4 $\alpha$ ,6 $\alpha$ -di( $\gamma$ , $\gamma$ -dimethylallyl)-2 $\alpha$ -(2-methyl-1-oxopropyl)cyclohexanone C<sub>22</sub>H<sub>36</sub>O<sub>2</sub> (332.53). Colorless oil,  $[\alpha]_D = -42^\circ$  ( $c = 0.38$ , CHCl<sub>3</sub>). **Pharm:** Anti-inflammatory inactive (rat mast cells stimulated with 10 $\mu$ g/mL compound 48/80, *in vitro*: inhibits release of  $\beta$ -glucuronidase, IC<sub>50</sub> > 30 $\mu$ mol/L; inhibits release of histamine, IC<sub>50</sub> > 30 $\mu$ mol/L; control Mepacrine, inhibits release of  $\beta$ -glucuronidase, IC<sub>50</sub> = 13.7 $\mu$ mol/L; inhibits release of histamine, IC<sub>50</sub> = 23.3 $\mu$ mol/L); anti-inflammatory inactive (inhibits accumulation of NO<sub>2</sub><sup>-</sup>, culture media of RAW264.7 macrophage-like cells in response to 1 $\mu$ g/mL LPS, IC<sub>50</sub> > 30 $\mu$ mol/L; N9 microglial cells in response to lipopolysaccharide (10ng/mL)/IFN- $\gamma$  (10U/mL), IC<sub>50</sub> > 30 $\mu$ mol/L; control *N*-(3-Aminomethyl)benzylacetamide, RAW264.7 cells, IC<sub>50</sub> = 2.9 $\mu$ mol/L; N9 cells, IC<sub>50</sub> = 6.3 $\mu$ mol/L). **Source:** FU MU *Garcinia subelliptica* (seed, yield = 0.000053%fw). **Ref:** 4773.

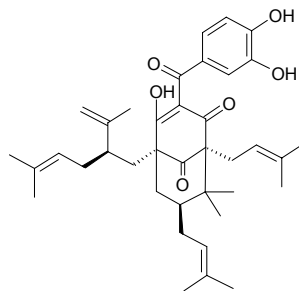
**8217 Garcinielliptone O**

6-Methoxycarbonyl-3,3-dimethyl-4 $\alpha$ ,6 $\alpha$ -di( $\gamma$ , $\gamma$ -dimethylallyl)-2 $\alpha$ -(2-methyl-1-oxo-propyl)cyclohexanone C<sub>24</sub>H<sub>38</sub>O<sub>4</sub> (390.57). Colorless oil,  $[\alpha]_D = -277^\circ$  ( $c = 016$ , CHCl<sub>3</sub>). **Pharm:** Anti-inflammatory inactive (rat mast cells stimulated with 10 $\mu$ g/mL compound 48/80, *in vitro*: inhibits release of  $\beta$ -glucuronidase, IC<sub>50</sub> > 30 $\mu$ mol/L; inhibits release of histamine, IC<sub>50</sub> > 30 $\mu$ mol/L; control Mepacrine, inhibits release of  $\beta$ -glucuronidase, IC<sub>50</sub> = 13.7 $\mu$ mol/L; inhibits release of histamine, IC<sub>50</sub> = 23.3 $\mu$ mol/L); anti-inflammatory inactive (inhibits accumulation of NO<sub>2</sub><sup>-</sup>, culture media of RAW264.7 macrophage-like cells in response to 1 $\mu$ g/mL LPS, IC<sub>50</sub> > 30 $\mu$ mol/L; N9 microglial cells in response to lipopolysaccharide (10ng/mL)/IFN- $\gamma$  (10U/mL), IC<sub>50</sub> > 30 $\mu$ mol/L; control *N*-(3-Aminomethyl)benzylacetamide, RAW264.7 cells, IC<sub>50</sub> = 2.9 $\mu$ mol/L; N9 cells, IC<sub>50</sub> = 6.3 $\mu$ mol/L). **Source:** FU MU *Garcinia subelliptica* (seed: yield = 0.00028%fw). **Ref:** 4773.

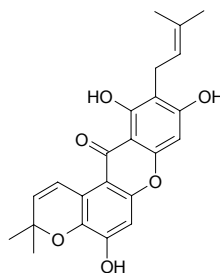
**8218 Garcinol**

Camboginol; Guttiferone E [78824-30-3] C<sub>38</sub>H<sub>50</sub>O<sub>6</sub> (602.82). **Pharm:** Antibacterial (*Staphylococcus aureus* MRSA, MIC = 16 $\mu$ g/mL)<sup>[4452]</sup>; antifungal; antioxidant (DPPH scavenger, 10 $\mu$ mol/L, ScRt = 74%, control BHT, 10 $\mu$ mol/L, ScRt = 43%)<sup>[5319]</sup>; antioxidant (DPPH radical scavenger, 10 $\mu$ mol/L, ScRt = 59%, IC<sub>50</sub> = 10.10 $\mu$ mol/L; control BHT, 10 $\mu$ mol/L, ScRt = 43%, IC<sub>50</sub> = 19.00 $\mu$ mol/L)<sup>[4422]</sup>; antibacterial (*Staphylococcus aureus* ATCC 25923, MIC = 16 $\mu$ g/mL, control Vancomycin, MIC = 2 $\mu$ g/mL;

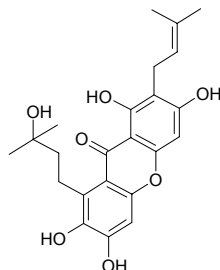
*Staphylococcus aureus* MRSA SK1, MIC = 16 $\mu$ g/mL, Vancomycin, MIC = 2 $\mu$ g/mL)<sup>[5319]</sup>. **Source:** TENG HUANG SHAN ZHU ZI *Garcinia cambogia*, TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), TIAN SHAN ZHU ZI *Garcinia dulcis* (flower), YIN DU TENG HUANG *Garcinia indica*, *Garcinia bancana* (twig and leaf). **Ref:** 658, 4422, 4452, 5319.

**8219 Garcinone B**

C<sub>23</sub>H<sub>22</sub>O<sub>6</sub> (394.43). **Pharm:** Antitubercular (*Mycobacterium tuberculosis*, MIC = 6.25 $\mu$ g/mL)<sup>[4358]</sup>; antioxidant (DPPH scavenger, 10 $\mu$ mol/L, ScRt = 15%, control BHT, 10 $\mu$ mol/L, ScRt = 43%)<sup>[5319]</sup>; antibacterial (*Staphylococcus aureus* ATCC 25923, MIC = 8 $\mu$ g/mL, control Vancomycin, MIC = 2 $\mu$ g/mL; *Staphylococcus aureus* MRSA SK1, MIC > 128 $\mu$ g/mL, Vancomycin, MIC = 2 $\mu$ g/mL)<sup>[5319]</sup>; cytotoxic inactive (KB cancer cell lines, BC-1, NCI-H187)<sup>[1619]</sup>; antioxidant inactive (DPPH scavenger, 50 $\mu$ mol/L, ScRt = 6.9%; control BHT, 50 $\mu$ mol/L, ScRt = 51.7%, IC<sub>50</sub> = 28.9 $\mu$ mol/L)<sup>[4423]</sup>. **Source:** DAO NIAN ZI *Garcinia mangostana* (young fruit: yield = 0.0017%dw)<sup>[1619]</sup>, DAO NIAN ZI *Garcinia mangostana* (fruit hull), HUANG NIU MU *Cratoxylum cochinchinense* (root), TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). **Ref:** 1521, 1619, 3066, 4358, 4422, 4423, 5319.

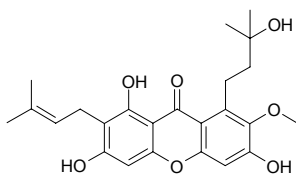
**8220 Garcinone C**

C<sub>23</sub>H<sub>26</sub>O<sub>7</sub> (414.46). **Pharm:** Cytotoxic (KB cancer cell lines, IC<sub>50</sub> = 7.48 $\mu$ g/mL, control Ellipticine, IC<sub>50</sub> = 1.33 $\mu$ g/mL; BC-1, IC<sub>50</sub> = 2.18 $\mu$ g/mL, Ellipticine, IC<sub>50</sub> = 1.46 $\mu$ g/mL; NCI-H187, IC<sub>50</sub> = 3.66 $\mu$ g/mL Ellipticine, IC<sub>50</sub> = 0.39 $\mu$ g/mL). **Source:** DAO NIAN ZI *Garcinia mangostana* (young fruit: yield = 0.0068%dw). **Ref:** 1619.

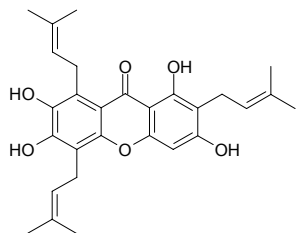


**8221 Garcinone D**

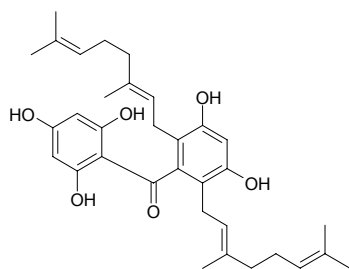
$C_{24}H_{28}O_7$  (428.49). **Pharm:** Antitubercular (*Mycobacterium tuberculosis*, MIC = 25  $\mu\text{g}/\text{mL}$ )<sup>[4358]</sup>; antioxidant (DPPH scavenger, 10  $\mu\text{mol}/\text{L}$ , ScRt = 3%, control BHT, 10  $\mu\text{mol}/\text{L}$ , ScRt = 43%)<sup>[5319]</sup>; antioxidant inactive (DPPH scavenger, 50  $\mu\text{mol}/\text{L}$ , ScRt = 6.9%; control BHT, 50  $\mu\text{mol}/\text{L}$ , ScRt = 51.7%, IC<sub>50</sub> = 28.9  $\mu\text{mol}/\text{L}$ )<sup>[4423]</sup>; antibacterial (*Staphylococcus aureus* ATCC 25923, MIC = 16  $\mu\text{g}/\text{mL}$ , control Vancomycin, MIC = 2  $\mu\text{g}/\text{mL}$ ; *Staphylococcus aureus* MRSA SK1, MIC = 32  $\mu\text{g}/\text{mL}$ , Vancomycin, MIC = 2  $\mu\text{g}/\text{mL}$ )<sup>[5319]</sup>; cytotoxic (KB cancer cell lines, IC<sub>50</sub> = 3.56  $\mu\text{g}/\text{mL}$ , control Ellipticine, IC<sub>50</sub> = 1.33  $\mu\text{g}/\text{mL}$ ; BC-1, IC<sub>50</sub> = 2.81  $\mu\text{g}/\text{mL}$ , Ellipticine, IC<sub>50</sub> = 1.46  $\mu\text{g}/\text{mL}$ ; NCI-H187, IC<sub>50</sub> = 11.04  $\mu\text{g}/\text{mL}$ , Ellipticine, IC<sub>50</sub> = 0.39  $\mu\text{g}/\text{mL}$ )<sup>[1619]</sup>. **Source:** DAO NIAN ZI *Garcinia mangostana* (fruit hull), DAO NIAN ZI *Garcinia mangostana* (young fruit: yield = 0.030%dw)<sup>[1619]</sup>, HUANG NIU MU *Cratogeomys cochinchinense* (root), TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). **Ref:** 1521, 1619, 3066, 4358, 4423, 5319.

**8222 Garcinone E**

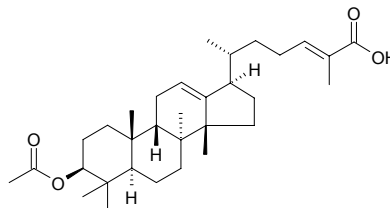
$C_{28}H_{32}O_6$  (464.56). **Pharm:** Cytotoxic (KB cancer cell lines, IC<sub>50</sub> = 2.67  $\mu\text{g}/\text{mL}$ , control Ellipticine, IC<sub>50</sub> = 1.33  $\mu\text{g}/\text{mL}$ ; BC-1, IC<sub>50</sub> = 1.44  $\mu\text{g}/\text{mL}$ , Ellipticine, IC<sub>50</sub> = 1.46  $\mu\text{g}/\text{mL}$ ; NCI-H187, IC<sub>50</sub> = 3.74  $\mu\text{g}/\text{mL}$ , Ellipticine, IC<sub>50</sub> = 0.39  $\mu\text{g}/\text{mL}$ )<sup>[1619]</sup>; cytotoxic (*in vitro*, HL-60, IC<sub>50</sub> = 15.0  $\mu\text{mol}/\text{L}$ )<sup>[4715]</sup>. **Source:** DAO NIAN ZI *Garcinia mangostana* (fruit hull, pericarp), DAO NIAN ZI *Garcinia mangostana* (young fruit: yield = 0.0078%dw)<sup>[1619]</sup>. **Ref:** 1619, 3066, 4715.

**8223 Garciosaphenone A**

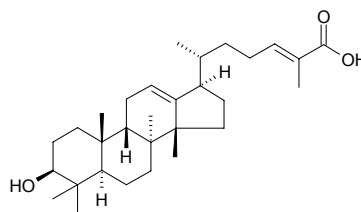
$C_{33}H_{42}O_6$  (534.70). Yellow solid, mp 159–161°C. **Pharm:** Anti-HIV-1 (HIV-1 reverse transcriptase assay, 200  $\mu\text{g}/\text{mL}$ , InRt = 97.7%, IC<sub>50</sub> = 23.9  $\mu\text{g}/\text{mL}$ ). **Source:** MEI LI TENG HUANG *Garcinia speciosa* (trunk bark and stems). **Ref:** 5491.

**8224 Garciosaterpene A**

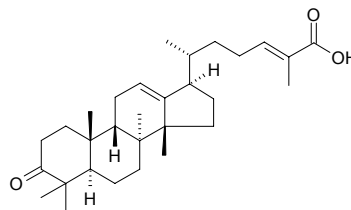
$C_{32}H_{50}O_4$  (498.75). White needles, mp 120–121°C,  $[\alpha]_D^{29} = +12^\circ$  ( $c = 0.13$ , MeOH). **Pharm:** Anti-HIV-1 (HIV-1 reverse transcriptase assay, 200  $\mu\text{g}/\text{mL}$ , InRt = 96.2%, IC<sub>50</sub> = 15.5  $\mu\text{g}/\text{mL}$ ). **Source:** MEI LI TENG HUANG *Garcinia speciosa* (trunk bark and stems). **Ref:** 5491.

**8225 Garciosaterpene B**

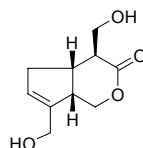
$C_{30}H_{48}O_3$  (456.72). White needles, mp 201–202°C,  $[\alpha]_D^{29} = -121^\circ$  ( $c = 0.008$ , MeOH). **Pharm:** Anti-HIV-1 (HIV-1 reverse transcriptase assay, 200  $\mu\text{g}/\text{mL}$ , InRt = 38.1%). **Source:** MEI LI TENG HUANG *Garcinia speciosa* (trunk bark and stems). **Ref:** 5491.

**8226 Garciosaterpene C**

$C_{30}H_{46}O_3$  (454.70). White needles, mp 93–95°C,  $[\alpha]_D^{29} = +125^\circ$  ( $c = 0.008$ , MeOH). **Pharm:** Anti-HIV-1 (HIV-1 reverse transcriptase assay, 200  $\mu\text{g}/\text{mL}$ , InRt = 96.3%, IC<sub>50</sub> = 12.2  $\mu\text{g}/\text{mL}$ ). **Source:** MEI LI TENG HUANG *Garcinia speciosa* (trunk bark and stems). **Ref:** 5491.

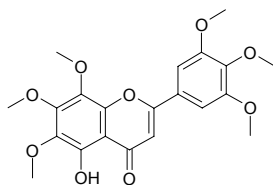
**8227 Gardendiol**

[160262-60-2]  $C_{10}H_{14}O_4$  (198.22). **Source:** ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. **Ref:** 317, 1521.

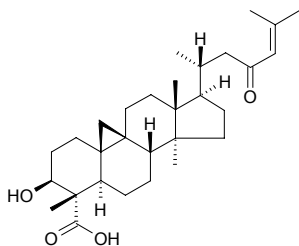


**8228 Gardenin**

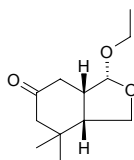
5-Hydroxy-6,7,8,3',4',5'-hexamethoxy flavone [21187-73-5]  $C_{21}H_{22}O_8$  (418.40). mp 163~164°C. Source: ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*], YI ZHI HAO *Achillea alpina* [Syn. *Achillea sibirica*]. Ref: 2, 33, 626.

**8229 Gardenolic acid A**

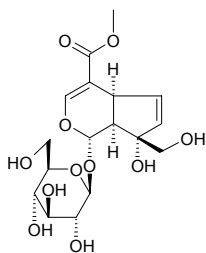
$C_{30}H_{46}O_4$  (470.70). Pharm: Anti-HIV-1 (syncytium assay:  $IC_{50} > 125 \mu\text{g/mL}$ ,  $EC_{50} = 110.0 \mu\text{g/mL}$ ; HIV-1 RT assay:  $200 \mu\text{g/mL}$ ,  $\text{InRt} = 92.3\%$ ,  $IC_{50} < 22.5 \mu\text{g/mL}$ , Fagaronine chloride  $IC_{50} = 10.9 \mu\text{g/mL}$ , Nevirapine  $IC_{50} = 1.8 \mu\text{g/mL}$ ). Source: TAI GUO ZHI ZI *Gardenia thailandica* (leaf and twig). Ref: 4963.

**8230 Gardenone**

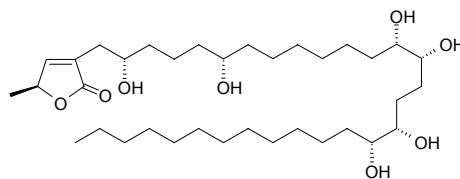
$C_{12}H_{20}O_3$  (212.29). Source: ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. Ref: 317, 1521.

**8231 Gardenoside**

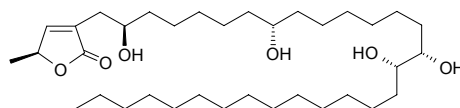
[24512-62-7]  $C_{17}H_{24}O_{11}$  (404.37). mp 118~120°C. Pharm: Laxative (mus, orl,  $ED_{50} = 1.2 \text{g/kg}$ ). Source: JING NI PING *Genipa Americana* (fruit), SHUI ZHI *Gardenia jasminoides* var. *grandiflora*, ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*] (dried ripe fruit: mean content = 3.75%<sup>[5508]</sup>). Ref: 2, 658, 4524, 5501, 5508.

**8232 Gardnerilin A**

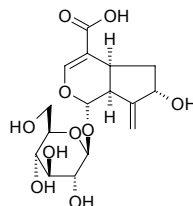
$C_{35}H_{66}O_8$  (614.91). White amorphous powder, mp 94~95°C,  $[\alpha]_D^{11} = +21.9^\circ$  ( $c = 0.07$ , MeOH). Source: CHANG YE GE NA XIANG *Goniothalamus gardneri*. Ref: 774.

**8233 Gardnerilin B**

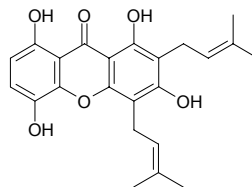
$C_{35}H_{66}O_6$  (582.91). White amorphous powder, mp 65~66°C,  $[\alpha]_D^{11} = +12.78^\circ$  ( $c = 0.11$ , MeOH). Source: CHANG YE GE NA XIANG *Goniothalamus gardneri*. Ref: 774.

**8234 Gardoside**

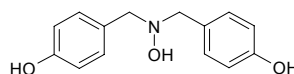
[54835-76-6]  $C_{16}H_{22}O_{10}$  (374.35). Source: FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts), ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. Ref: 2, 3954.

**8235 Gartanin**

$C_{23}H_{24}O_6$  (396.44). Pharm: Cytotoxic (KB cancer cell lines,  $IC_{50} = 15.63 \mu\text{g/mL}$ , control Ellipticine,  $IC_{50} = 1.33 \mu\text{g/mL}$ ; BC-1,  $IC_{50} = 15.54 \mu\text{g/mL}$ , Ellipticine,  $IC_{50} = 1.46 \mu\text{g/mL}$ ; NCI-H187,  $IC_{50} = 1.08 \mu\text{g/mL}$  Ellipticine,  $IC_{50} = 0.39 \mu\text{g/mL}$ )<sup>[1619]</sup>, antioxidant (DPPH scavenger,  $10 \mu\text{mol/L}$ ,  $\text{ScRt} = 2\%$ , control BHT,  $10 \mu\text{mol/L}$ ,  $\text{ScRt} = 43\%$ )<sup>[5319]</sup>. Source: DAO NIAN ZI *Garcinia mangostana* (young fruit: yield = 0.0060%dw)<sup>[1619]</sup>, TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). Ref: 1521, 1619, 3066, 5319.

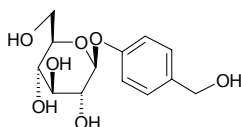
**8236 Gastrodamine**

$C_{14}H_{15}NO_3$  (245.28). Colorless acicular Crystals ( $\text{CHCl}_3$ -MeOH), mp 185~187°C. Source: TIAN MA *Gastrodia elata*. Ref: 888.

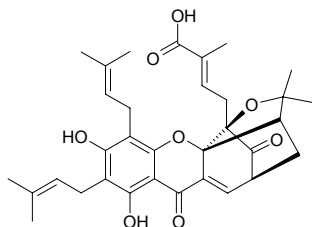


**8237 Gastrodin**

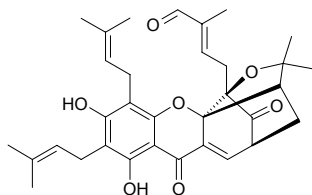
4-Hydroxybenzyl alcohol 4-*O*- $\beta$ -*D*-glucopyranoside [62499-27-8] C<sub>13</sub>H<sub>18</sub>O<sub>7</sub> (286.28). White solid, mp 96–98°C, [ $\alpha$ ]<sub>D</sub><sup>15</sup> = –66.4° (water), soluble in water, methanol, acetone, hot acetic ester, slightly soluble in ether.<sup>[5507]</sup> **Source:** LAN YU BAI JI *Bletilla formosana* (whole herb), SHAN HU LAN *Galeola faberi*, SHI LUO ZI *Anethum graveolens* (fruit), TIAN MA *Gastrodia elata* (dried tuber: content scope of 5 batch samples = 0.210%–0.943%, mean content = 0.467%<sup>[5513]</sup>). **Ref:** 4, 280, 4177, 4500, 5501, 5507, 5513.

**8238 Gaudichaudic acid**

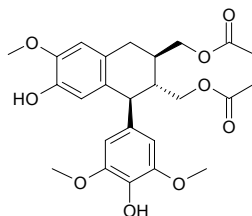
C<sub>33</sub>H<sub>38</sub>O<sub>8</sub> (562.67). Bright yellow amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = –535°, (*c* = 0.065, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (hmn leukemia: doxorubicin-resistant K562, IC<sub>50</sub> = (0.61±0.05)μg/mL, control Adriamycin, IC<sub>50</sub> = (1.79±0.17)μg/mL; drug-sensitive K562, IC<sub>50</sub> = (0.41±0.03)μg/mL, Adriamycin, IC<sub>50</sub> = (0.11±0.01)μg/mL). **Source:** TENG HUANG SHU *Garcinia hanburyi* (resin). **Ref:** 1583.

**8239 Gaudichaudione A**

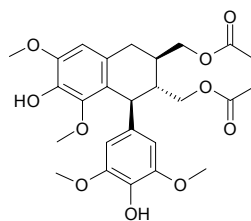
C<sub>33</sub>H<sub>38</sub>O<sub>7</sub> (546.67). Yellow oil, [ $\alpha$ ]<sub>D</sub> = –571.7° (*c* = 0.1, CHCl<sub>3</sub>). **Pharm:** Cytotoxic. **Source:** GAO DI CHA SHAN ZHU ZI *Garcinia gaudichaudii*. **Ref:** 1521.

**8240 Gaultherin A**

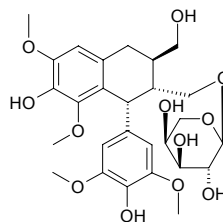
5-Methoxy-(+)-isolariciresinol-9,9'-diacetate [243468-37-3] C<sub>25</sub>H<sub>30</sub>O<sub>9</sub> (474.51). White powder (acetone:water = 2:1), mp 159–160°C, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +30° (*c* = 0.08, MeOH). **Source:** DIAN BAI ZHU SHU *Gaultheria yunnanensis*. **Ref:** 2295.

**8241 Gaultherin B**

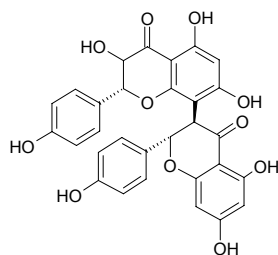
(+)-Lyoniresinol-9,9'-diacetate C<sub>26</sub>H<sub>32</sub>O<sub>10</sub> (504.54). White powder (acetone:water = 2:1), mp 120–121°C, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +40° (*c* = 0.05, MeOH). **Source:** DIAN BAI ZHU SHU *Gaultheria yunnanensis*. **Ref:** 2295.

**8242 Gaultheroside A**

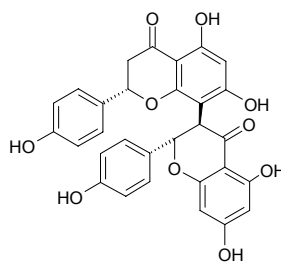
(+)-Lyoniresinol-2*α*-*O*-*α*-*L*-arabinopyranoside (D<sub>1</sub>) C<sub>27</sub>H<sub>36</sub>O<sub>12</sub> (552.58). White powder, mp 154–155°C. **Source:** BAI ZHU SHU *Gaultheria leucocarpa* var. *cumingiana* (root: content = 0.014%<sup>[5508]</sup>); DIAN BAI ZHU SHU *Gaultheria yunnanensis* (root: content scope of 3 origins = 0.050%–0.128%, mean content = 0.085%<sup>[5508]</sup>); FANG XIANG BAI ZHU *Gaultheria fragrantissima* (root: content = 0.062%<sup>[5508]</sup>); SI LIE BAI ZHU *Gaultheria tetramera* (root: content = 0.022%<sup>[5508]</sup>); WEI YE BAI ZHU *Gaultheria griffithiana* (root: content = 0.045%<sup>[5508]</sup>). **Ref:** 666, 5508.

**8243 GB1**

[14736-58-4] C<sub>30</sub>H<sub>22</sub>O<sub>11</sub> (558.50). **Source:** SHAN ZHU ZI *Garcinia multiflora*. **Ref:** 6.

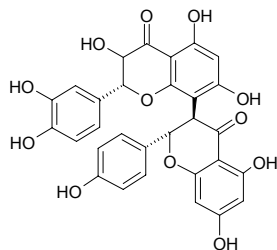
**8244 GB1a**

[19360-72-6] C<sub>30</sub>H<sub>22</sub>O<sub>10</sub> (542.50). **Source:** SHAN ZHU ZI *Garcinia multiflora*. **Ref:** 6.

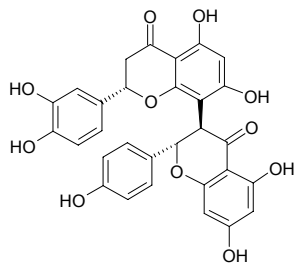


**8245 GB2**

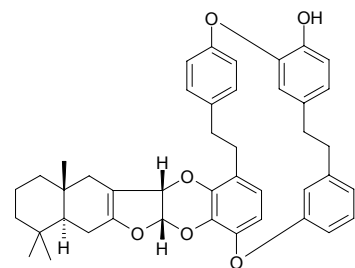
[18913-18-3]  $C_{30}H_{22}O_{12}$  (574.50). Source: SHAN ZHU ZI *Garcinia multiflora*. Ref: 6.

**8246 GB2a**

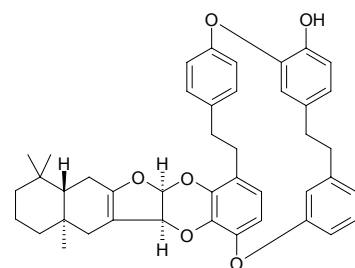
Dihydromorelloflavone [18412-96-9]  $C_{30}H_{22}O_{11}$  (558.50). Buff powder, mp 214–216°C (dec),  $[\alpha]_D = +28.2^\circ$  (acetone). Pharm: Anti-HIV-1 RT (200 $\mu$ g/mL, InRt = 96.0%, IC<sub>50</sub> = 170 $\mu$ mol/L); antiviral (EBV); antioxidant (DPPH radical scavenger, 10 $\mu$ mol/L, ScRt = 33%; control BHT, 10 $\mu$ mol/L, ScRt = 43%, IC<sub>50</sub> = 19.00 $\mu$ mol/L)<sup>[4422]</sup>. Source: SHAN ZHU ZI *Garcinia multiflora*, TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). Ref: 6, 900, 1072, 4422.

**8247 GBB A**

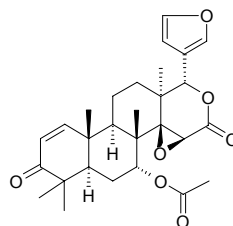
$C_{43}H_{44}O_6$  (656.83). Source: CANG BAI QI SHE TAI *Schistochila glaucescens*. Ref: 4549.

**8248 GBB B**

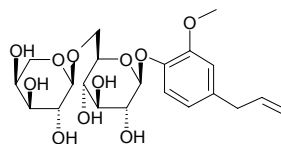
$C_{43}H_{44}O_6$  (656.83). Source: CANG BAI QI SHE TAI *Schistochila glaucescens*. Ref: 4549.

**8249 Gedunin**

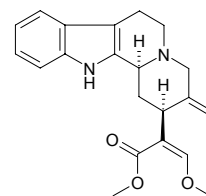
[2753-30-2]  $C_{28}H_{34}O_7$  (482.58). mp 157°C, 218°C. Source: KU LIAN PI *Melia azedarach*. Ref: 6.

**8250 Gein**

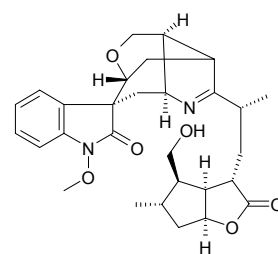
Geoside [585-90-0]  $C_{21}H_{30}O_{11}$  (458.47). mp 146–147°C, bp 183–184°C. Source: SHUI YANG MEI *Geum japonicum*, SHUI YANG MEI GEN *Geum japonicum*. Ref: 6.

**8251 Geissoschizine methyl ether**

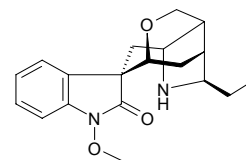
[60314-89-8]  $C_{22}H_{26}N_2O_3$  (366.46). Pharm: Vasorelaxant (*in vitro*, isolated rat aorta)<sup>[5341]</sup>, CNS activity (agonistic activity, against the central serotonergic receptor, binding to  $\alpha$ -adrenoceptor, 5-HT, dopamine and GABA receptors; agonist of 5-HT<sub>1A</sub> receptor while blocking 5-HT<sub>2A</sub> receptor)<sup>[5341]</sup>. Source: GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*]. Ref: 2, 5341.

**8252 Gelsamydine**

[120881-61-0]  $C_{29}H_{36}N_2O_6$  (508.62). mp 194–196°C,  $[\alpha]_D = -126.9^\circ$ . Source: GOU WEN *Gelsemium elegans*. Ref: 14.

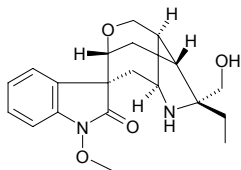
**8253 Gelsedine**

[7096-96-0]  $C_{19}H_{24}N_2O_3$  (328.41). mp 172.5–174.0°C. Source: GOU WEN *Gelsemium elegans*. Ref: 14.

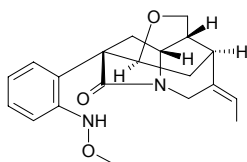


**8254 Gelsegine**

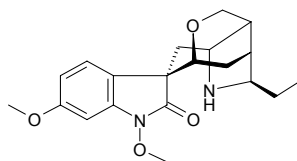
[131653-76-4]  $C_{20}H_{26}N_2O_4$  (358.44). mp 167~168°C,  $[\alpha]_D = -30^\circ$ . Source: GOU WEN *Gelsemium elegans*. Ref: 14.

**8255 Gelsemamide**

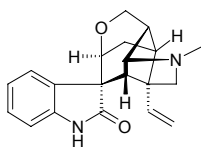
[122297-34-1]  $C_{20}H_{24}N_2O_3$  (340.43). mp 183~184°C,  $[\alpha]_D = +228.3^\circ$ . Source: GOU WEN *Gelsemium elegans*. Ref: 14.

**8256 Gelsemicine**

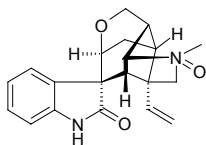
[6887-28-1]  $C_{20}H_{26}N_2O_4$  (358.44). mp 171°C,  $[\alpha]_D^{24} = -140^\circ$  (ethanol). Pharm: Paralyzes respiration (high dose); respiratory stimulant (low dose); uterine stimulant; MLD (rbt, iv) = 0.08mg/kg. Source: CHANG LV GOU WEN *Gelsemium sempervirens*. Ref: 661.

**8257 Gelsemine**

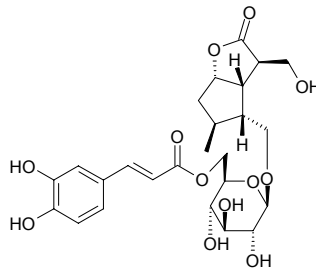
Kiuminine [509-15-9]  $C_{20}H_{22}N_2O_2$  (322.41). mp 178°C. Pharm: Analgesic; CNS stimulant; increases blood pressure (blocks decrease of blood pressure due to injection of acetylcholine or electrostimulation of the vagus in heart); toxin. Source: CHANG LV GOU WEN *Gelsemium sempervirens*, GOU WEN *Gelsemium elegans*. Ref: 5, 6, 14, 658.

**8258 Gelsemine N-oxide**

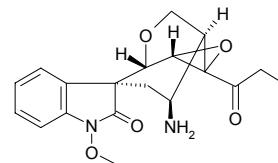
[113900-76-8]  $C_{20}H_{22}N_2O_3$  (338.41). Amorphous,  $[\alpha]_D = -16.9^\circ$ . Source: GOU WEN *Gelsemium elegans*. Ref: 14.

**8259 Gelsemiol 6'-trans-caffeoyl-1-glucoside**

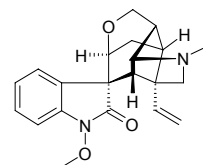
$C_{25}H_{32}O_{12}$  (524.53). Colorless needle crystals (MeOH), mp 122~124°C,  $[\alpha]_D^{27} = +3.4^\circ$  ( $c = 0.23$ , MeOH). Pharm: Neurite outgrowth enhancer (PC12D cells, NGF-mediated neurite outgrowth, to enhance the ability of NGF, may be useful in the treatment of neurological disorders, such as Parkinson's disease (PD), Alzheimer's disease (AD), Huntington's disease (HD), amyotrophic lateral sclerosis (ALS), and hmn immunodeficiency virus associated dementia (HAD)). Source: HAI BIAN MA BIAN CAO *Verbena littoralis* (aerial parts). Ref: 4383.

**8260 Gelsemoxonine**

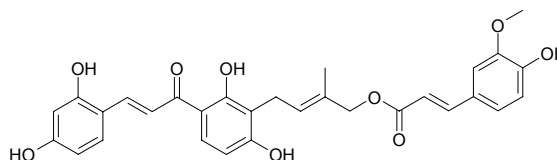
[135626-64-1]  $C_{19}H_{22}N_2O_5$  (358.40). Powder,  $[\alpha]_D = -188.5^\circ$ . Source: GOU WEN *Gelsemium elegans*. Ref: 14.

**8261 Gelseverine**

[38990-03-3]  $C_{21}H_{24}N_2O_3$  (352.44). Oil,  $[\alpha]_D = -4.5^\circ$ . Source: GOU WEN *Gelsemium elegans*. Ref: 14.

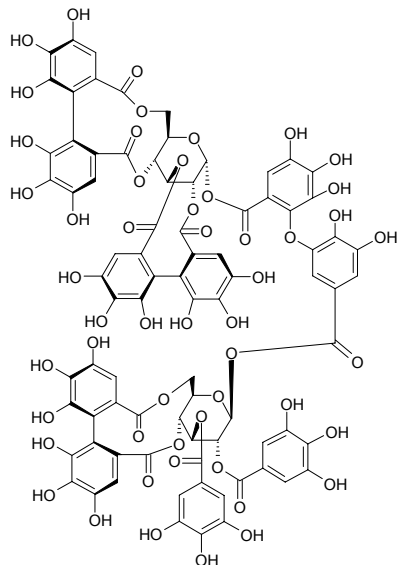
**8262 Gemichalcone C**

Isogemichalcone C; 3'-[ $\gamma$ -Hydroxymethyl (*E*)- $\gamma$ -methylallyl]-2,4,2',4'-tetrahydroxychalcone 11'-*O*-coumarate; Anticancer Flavonoid PMV70P691-020  $C_{30}H_{28}O_9$  (532.55). Yellow powder (MeOH). Pharm: Cytotoxic (aromatase inhibitor, a promising lead as potential cancer chemopreventive agents)<sup>[5038]</sup>; aromatase inhibitor (*in vitro*,  $IC_{50} = 7.1\mu\text{mol/L}$ ; control Aminoglutethimide,  $IC_{50} = 6.4\mu\text{mol/L}$ )<sup>[3090]</sup>. Source: GOU SHU *Broussonetia papyrifera*, GOU SHU *Broussonetia papyrifera*, SHUANG HUA JIN SI TAO *Hypericum geminiflorum*. Ref: 3090, 3493, 5038.

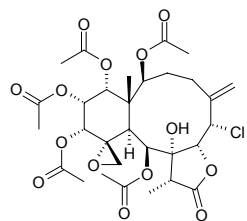


**8263 Gemin A**

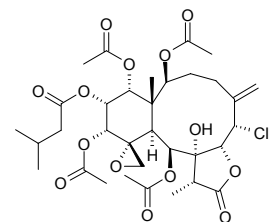
[82220-61-9] C<sub>82</sub>H<sub>56</sub>O<sub>52</sub> (1873.33). Pharm: Antineoplastic (S<sub>180</sub>). Source: SHUI YANG MEI *Geum japonicum*. Ref: 658.

**8264 Gemmacolide A**

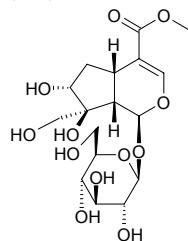
C<sub>30</sub>H<sub>39</sub>ClO<sub>14</sub> (659.09). Source: DENG XIN LIU SHAN HU *Junceella juncea* (yield = 0.00018%). Ref: 4781.

**8265 Gemmacolide B**

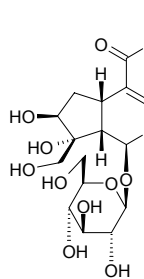
C<sub>33</sub>H<sub>45</sub>ClO<sub>14</sub> (701.17). Source: DENG XIN LIU SHAN HU *Junceella juncea* (yield = 0.00024%). Ref: 4781.

**8266 Genameside A**

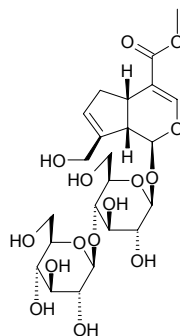
$\alpha$ -Hydroxy-6,7-dihydrogardenoside C<sub>17</sub>H<sub>26</sub>O<sub>12</sub> (422.39). Colorless syrup,  $[\alpha]_D^{26} = -91.9^\circ$  ( $c = 2.4$ , MeOH). Source: JING NI PING *Genipa Americana* (fruit). Ref: 4524.

**8267 Genameside B**

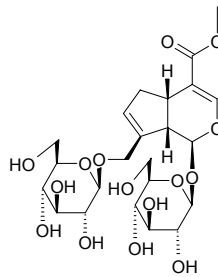
C<sub>17</sub>H<sub>26</sub>O<sub>12</sub> (422.39). Colorless syrup,  $[\alpha]_D^{26} = -63.8^\circ$  ( $c = 1.9$ , MeOH). Source: JING NI PING *Genipa Americana* (fruit). Ref: 4524.

**8268 Genameside C**

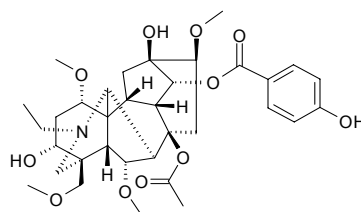
Genipin  $\beta$ -cellobioside C<sub>23</sub>H<sub>34</sub>O<sub>15</sub> (550.52). White powder,  $[\alpha]_D^{26} = -0.4^\circ$  ( $c = 3.3$ , MeOH). Source: JING NI PING *Genipa Americana* (fruit). Ref: 4524.

**8269 Genameside D**

10-*O*- $\beta$ -D-Glucopyranosyl geniposide C<sub>23</sub>H<sub>34</sub>O<sub>15</sub> (550.52). Colorless syrup,  $[\alpha]_D^{26} = +3.3^\circ$  ( $c = 6.0$ , MeOH). Source: JING NI PING *Genipa Americana* (fruit). Ref: 4524.

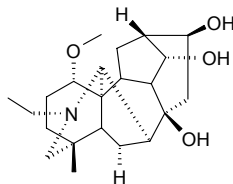
**8270 Genticuline**

20-Ethyl-8-acetoxy-14-(*p*-hydroxybenzoyloxy)-1 $\alpha$ -,6 $\alpha$ -,16 $\beta$ -,18-tetramethoxyac onitane-3 $\alpha$ -,13 $\beta$ -diol C<sub>34</sub>H<sub>47</sub>NO<sub>11</sub> (645.75). Amorphous powder,  $[\alpha]_D^{25.5} = +31.6^\circ$  ( $c = 0.00372$ , CHCl<sub>3</sub>). Source: XI BAN WU TOU *Aconitum geniculatum*. Ref: 2142.

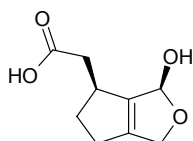


**8271 Genicunine A**

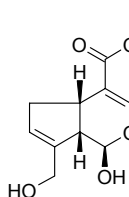
$C_{22}H_{35}NO_4$  (377.53). White amorphous powder. Source: GONG GA SHAN WU TOU *Aconitum liljestrandii*. Ref: 2191.

**8272 Genipic acid**

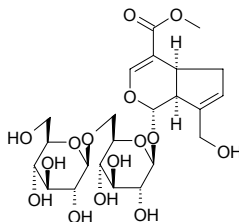
[6902-76-7]  $C_9H_{12}O_4$  (184.19).  $[\alpha]_D^{27} = -105^\circ$  ( $c = 1$ , ethanol). Pharm: Antibacterial. Source: JING NI PING *Genipa americana*. Ref: 661.

**8273 Genipin**

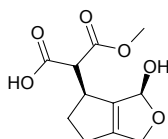
[6902-77-8]  $C_{11}H_{14}O_5$  (226.23). Pharm: Anticholinergic (mus ileum); antihistamine (gpg ileum); choleric; inhibits gastric secretion (pylorus-ligated rat); analgesic (mus, ip, acetic acid-induced writhing model). Source: ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*], JING NI PING *Genipa americana*, DU ZHONG *Eucommia ulmoides*. Ref: 2, 658, 5501.

**8274 Genipengentiobioside**

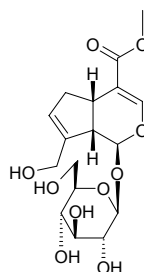
$C_{23}H_{34}O_{15}$  (550.52). mp 193~195°C ( $C_2H_5OH$ ), 227~229°C. Source: JING NI PING *Genipa Americana* (fruit), SHUI ZHI *Gardenia jasminoides* var. *grandiflora*, ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*] (dried ripe fruit: mean content of 22 origins = 0.400%<sup>[5508]</sup>). Ref: 2, 4524, 5508.

**8275 Genipinic acid**

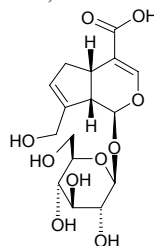
$C_{11}H_{14}O_6$  (242.23). Very unstable moisture absorptive amorphous white powder,  $[\alpha]_D^{26} = -126^\circ$  ( $c = 1$ , ethanol). Pharm: Antibacterial. Source: JING NI PING *Genipa americana*. Ref: 661.

**8276 Geniposide**

1- $\beta$ -Glucogeniposide [24512-63-8]  $C_{17}H_{24}O_{10}$  (388.37). mp 163~164°C. Pharm: Analgesic (mus, ip, acetic acid-induced writhing model); laxative ( $ED_{50} = 300mg/kg$ ); cell growth inhibitor (transformed NIH3T3 cell line, 25~100 $\mu mol/L$ )<sup>[4979]</sup>. Source: AI LAI MU *Cornus suecica*, DU ZHONG *Eucommia ulmoides* (bark of 10 years old plant: content = 0.39%<sup>[5508]</sup>), GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*], JING NI PING *Genipa Americana* (fruit), SHUI ZHI *Gardenia jasminoides* var. *grandiflora*, SHUI ZHI YE *Gardenia jasminoides* var. *grandiflora*, WU SE MEI *Lantana camara*, ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*] (dried ripe fruit: mean content = 3.25%<sup>[5508]</sup>), ZHI ZI YE *Gardenia jasminoides* [Syn. *Gardenia florida*]. Ref: 2, 234, 658, 4524, 4979, 5501, 5508.

**8277 Geniposidic acid**

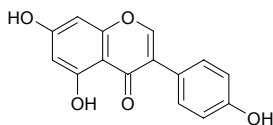
[27741-01-1]  $C_{16}H_{22}O_{10}$  (374.35). Pharm: Laxative ( $ED_{50} > 800mg/kg$ ). Source: DU ZHONG *Eucommia ulmoides* (bark: mean content = 0.306%<sup>[5508]</sup>), DU ZHONG YE *Eucommia ulmoides* (leaf: mean content = 0.085%<sup>[5508]</sup>), FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts), JING NI PING *Genipa Americana* (fruit), LONG CHUAN HUA *Ixora chinensis*, ROU CONG RONG *Cistanche deserticola*, SHUI XIAN CAO *Hedyotis corymbosa* [Syn. *Oldenlandia corymbosa*], ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*] (dried ripe fruit: mean content = 0.29%<sup>[5508]</sup>). Ref: 2, 628, 658, 3954, 4524, 5508.

**8278 Genistein**

[446-72-0]  $C_{15}H_{10}O_5$  (270.24). mp 301~302°C (dec). Pharm: Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells)<sup>[5038]</sup>; cytotoxic (KB,  $ED_{50} = 7.4\mu g/mL$ ); cytotoxic (*in vitro*, Hs740T,  $ED_{50} = 4.38\mu g/mL$ ; Hs756T,  $ED_{50} = 5.82\mu g/mL$ ; Hs578T,  $ED_{50} = 3.5\mu g/mL$ ; Hs742T,  $ED_{50} = 14.88\mu g/mL$ ; DU145,  $ED_{50} = 2.39\mu g/mL$ ; LNCaP-FGC,  $ED_{50} = 25.45\mu g/mL$ )<sup>[4630]</sup>; antineoplastic (Inhibition of DMBA-induced preneoplastic lesions *in vitro*, MMOC assay,  $IC_{50} = 45.2\mu mol/L$ ; control Sulforaphane,  $IC_{50} = 11\mu mol/L$ )<sup>[4718]</sup>; catechol-*O*-methyltransferase inhibitor (competitive); histidine decarboxylase inhibitor (competitive); peroxidase inhibitor (competitive); lipase inhibitor (soy, competitive); antihypercholesterolemic (rat, reduces the level of cholesterol and triglyceride in serum, hyperlipemia caused by trinitrotoluene); CyP1A inhibitor ( $IC_{50} = (4.9\pm 0.5)\mu mol/L$ )<sup>[5347]</sup>; QR inhibitor (cultured mouse Hepa1c1c7 cells, CD

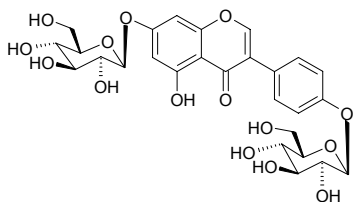


= (17.1±8.5)μmol/L, IC<sub>50</sub> = (23.9±5.9)μmol/L)<sup>[5347]</sup>; DPPH scavenger (SC<sub>50</sub> > 250μmol/L, 250μmol/L scavenging rate = 2%)<sup>[5347]</sup>; anti-inflammatory (inhibit brain liposomal peroxidation, 62.5μg/mL, optical density of DMSO control = (52.8±0.3)%; positive control Propyl gallate, 7.5μmol/mL, optical density of DMSO control = (20.6±0.2)%<sup>[4984]</sup>; granular release inhibitor<sup>[4984]</sup>; hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by *D*-galactosamine (GalN), IC<sub>50</sub> = 29μmol/L, control Silybin IC<sub>50</sub> = 41μmol/L)<sup>[4095]</sup>; anti-inflammatory (modulator of cytokine network: inhibits LPS-stimulated TNF-α and IL-6 release in RAW264.7 macrophages, IC<sub>50</sub> = 5μmol/L)<sup>[4416]</sup>; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; antioxidant (DPPH scavenger, TLC detection limit = 1.0μg, IC<sub>50</sub> = 1810μg/mL; control Quercetin, TLC detection limit < 0.05μg, IC<sub>50</sub> = 7μg/mL; Gallic acid, TLC detection limit < 0.05μg, IC<sub>50</sub> = 4μg/mL; Ascorbic acid, TLC detection limit < 0.10μg, IC<sub>50</sub> = 18μg/mL)<sup>[3785]</sup>; antibacterial (*Escherichia coli*, MIA = 100.0μg, control Chloramphenicol, MIA = 0.001μg; *Staphylococcus aureus*, MIA = 1.00μg, Chloramphenicol, MIA = 0.0001μg; *Bacillus subtilis*, MIA = 5.00μg, Chloramphenicol, MIA = 0.0001μg)<sup>[5247]</sup>; antifungal (*Candida mycoderma*, MIA = 0.10μg, control Miconazole, MIA = 0.0001μg)<sup>[5247]</sup>; antioxidant (DPPH scavenger, TLC, MIA = 0.5μg, IC<sub>50</sub> = 354μg/mL; control Quercetin, MIA < 0.05μg, IC<sub>50</sub> = 7μg/mL, Gallic acid, MIA < 0.05μg, IC<sub>50</sub> = 4μg/mL; Ascorbic acid, MIA < 0.10μg, IC<sub>50</sub> = 18μg/mL)<sup>[5247]</sup>. **Source:** DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.013%dw)<sup>[4630]</sup>, DU HUI MAO DOU *Tephrosia toxicaria* (stem: yield = 0.000065%dw)<sup>[4718]</sup>, GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], HONG CHE ZHOU CAO *Trifolium pratense*, HUAI *Sophora japonica*, HUAI JIAO *Sophora japonica*, HUANG HUA MU *Piptanthus nepalensis*, HUANG YU SHAN DOU *Lupinus luteus*, HEI DA DOU *Glycine max*, JI KUAN CI TONG *Erythrina latissima* (stem wood), PAN YUAN YU TENG *Derris scandens* (stem), RAN LIAO MU *Genista tinctoria*, SHAN DOU GEN *Sophora subprostrata* [Syn. *Sophora tonkinensis*], *Prunus* sp., PAN YUAN YU TENG *Derris scandens* (stem), GUANG BU DING GONG TENG *Erycibe expansa*, *Bolusanthus speciosus* (root wood)<sup>[3785]</sup>. **Ref:** 2, 4, 5, 658, 3785, 3810, 4095, 4416, 4415, 4630, 4718, 4984, 5038, 5247, 5347.



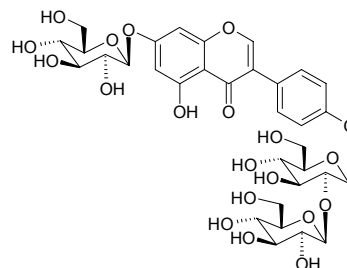
#### 8279 Genistein 7-O-β-D-glucopyranoside-4'-O-β-D-glucopyranoside

C<sub>27</sub>H<sub>30</sub>O<sub>15</sub> (594.53). **Source:** HUAI *Sophora japonica* (pericarp). **Ref:** 3080.



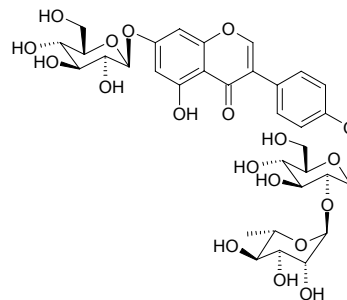
#### 8280 Genistein 7-O-β-D-glucopyranoside-4'-O-(β-D-glucopyranosyl)-(1→2)-β-D-glucopyranoside

C<sub>33</sub>H<sub>40</sub>O<sub>20</sub> (756.67). White amorphous powder, mp 241–243°C, [α]<sub>D</sub><sup>25</sup> = -65° (c = 0.001, DMSO). **Source:** HUAI *Sophora japonica* (pericarp). **Ref:** 3080.



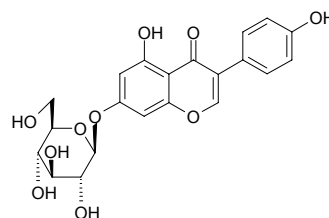
#### 8281 Genistein 7-O-β-D-glucopyranoside-4'-O-(α-L-rhamnopyranosyl)-(1→2)-β-D-glucopyranoside

C<sub>33</sub>H<sub>40</sub>O<sub>19</sub> (740.68). White amorphous powder, mp 229–231°C, [α]<sub>D</sub><sup>25</sup> = -73° (c = 0.001, DMSO). **Source:** HUAI *Sophora japonica* (pericarp). **Ref:** 3080.



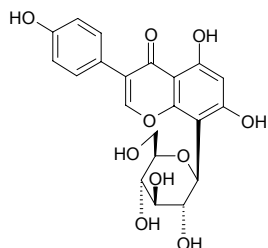
#### 8282 Genistein 7-glucoside

Genistin [529-59-9] C<sub>21</sub>H<sub>20</sub>O<sub>10</sub> (432.39). mp 254–256°C. **Pharm:** Estrogenic activity; inhibits growth of wheat coleoptile *in vitro*. **Source:** AI JING DOU *Ulex nanus*, DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.011%dw)<sup>[4630]</sup>, GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], HEI DA DOU *Glycine max*, HUAI *Sophora japonica*, HUAI *Sophora japonica* (pericarp)<sup>[3080]</sup>, HUANG HUA MU *Piptanthus nepalensis*, HUANG YU SHAN DOU *Lupinus luteus*, RAN LIAO MU *Genista tinctoria*. **Ref:** 6, 658, 660, 3080, 4630.

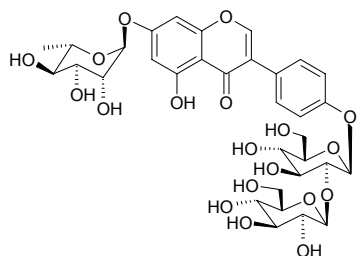


**8283 Genistein 8-C-glucoside**

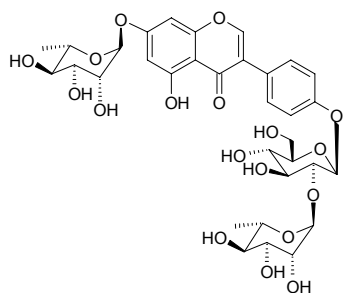
[66026-80-0] C<sub>21</sub>H<sub>20</sub>O<sub>10</sub> (432.39). Source: HUANG YU SHAN DOU *Lupinus luteus*, GUANG LIANG HUANG TAN *Dalbergia nitidula*. Ref: 658.

**8284 Genistein 7-O- $\alpha$ -L-rhamnopyranoside-4'-O-[( $\beta$ -D-glucopyranosyl)-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside]**

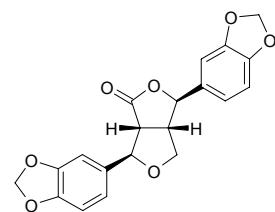
C<sub>33</sub>H<sub>40</sub>O<sub>19</sub> (740.68). White amorphous powder, mp 211~213°C,  $[\alpha]_D^{25} = -85^\circ$  ( $c = 0.001$ , DMSO). Source: HUAI *Sophora japonica* (pericarp). Ref: 3080.

**8285 Genistein 7-O- $\alpha$ -L-rhamnopyranoside-4'-O-[( $\alpha$ -L-rhamnopyranosyl)-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside]**

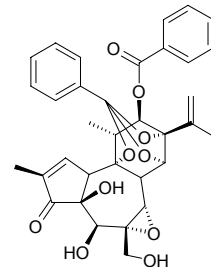
C<sub>33</sub>H<sub>40</sub>O<sub>18</sub> (724.68). White amorphous powder, mp 212~214°C,  $[\alpha]_D^{25} = -95^\circ$  ( $c = 0.001$ , DMSO). Source: HUAI *Sophora japonica* (pericarp). Ref: 3080.

**8286 Genkdaphin**

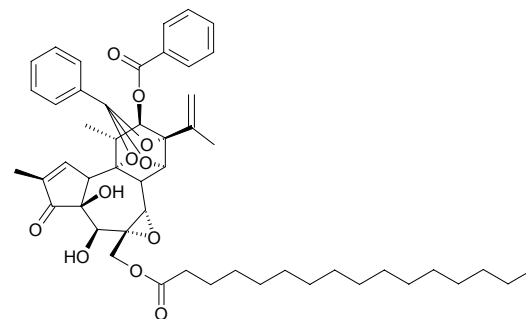
C<sub>20</sub>H<sub>16</sub>O<sub>7</sub> (368.35). Colorless acicular Crystals, mp 118.0~119.5°C,  $[\alpha]_D = -64.8^\circ$  ( $c = 0.5$ , chloroform). Source: YUAN HUA *Daphne genkwa*. Ref: 175.

**8287 Genkwadaphnin**

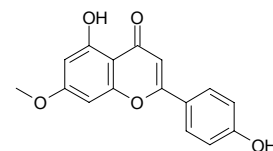
[55073-32-0] C<sub>34</sub>H<sub>34</sub>O<sub>10</sub> (602.64). Pharm: *Daphne oleoides* ssp. *oleoides* Source: YOU RUI XIANG *Daphne oleoides*. Ref: 2410.

**8288 Genkwadaphnin-20-palmitate**

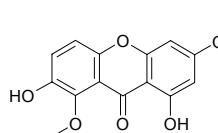
C<sub>50</sub>H<sub>64</sub>O<sub>11</sub> (841.06). Amorphous powder,  $[\alpha]_D^{25} = +37.5^\circ$  ( $c = 1.74$ , CHCl<sub>3</sub>). Source: YOU RUI XIANG *Daphne oleoides*. Ref: 2410.

**8289 Genkwanin**

4',5-Dihydroxy-7-methoxy flavone [437-64-9] C<sub>16</sub>H<sub>12</sub>O<sub>5</sub> (284.27). mp 286°C, 293°C. Pharm: Inhibits frog heart *in vitro*; inhibits intestinal and uterine movement (animal *in vitro*); antihypertensive (dog, iv); uterine stimulant (dog, iv); improves respiration (dog, iv). Source: CI CAO SU *Phlomis pungens*, GUANG GUO GAN CAO *Glycyrrhiza glabra*, JI CHA KAI LA RUI A *Larrea divaricata*, JIAO ZHI SHU WEI CAO *Salvia glutinosa*, MI DIE XIANG *Rosmarinus officinalis*, SAN CHI LA RUI A *Larrea tridentata*, XI YE YI MU CAO *Leonurus sibiricus* (aerial parts: yield = 0.00074%)<sup>[4744]</sup>, YI MU CAO *Leonurus heterophyllus* [Syn. *Leonurus artemisia*] (aerial parts), YIN CHEN HAO *Artemisia capillaris*, YING TAO *Prunus pseudocerasus*, YUAN HUA *Daphne genkwa* (dried bud: mean content of 19 origins = 0.390%<sup>[5535]</sup>). Ref: 2, 6, 658, 4493, 4744, 5501, 5508, 5535.

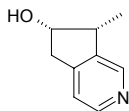
**8290 Gentiacauleine**

[15402-27-4] C<sub>15</sub>H<sub>12</sub>O<sub>6</sub> (288.26). Pharm: Vasodilator (rat aortic preparations, pre-contracted by 3 $\mu$ mol/L arterenol, pIC<sub>50</sub> = 5.00 $\pm$ 0.03; pre-contracted by 20 $\mu$ mol/L KCl, pIC<sub>50</sub> = 4.90 $\pm$ 0.15)<sup>[5434]</sup>. Source: XUE LONG DAN *Gentiana nivalis*, KU HE LONG DAN *Gentiana kochiana*. Ref: 658, 5434.

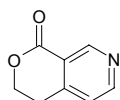


**8291 Gentialutine**

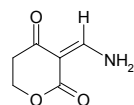
Venoterpine [17948-42-4] C<sub>9</sub>H<sub>11</sub>NO (149.19). mp 129~130°C. Source: SHUI CAI *Menyanthes trifoliata*, XI SHU *Camptotheca acuminata*, XI ZANG QIN JIAO *Gentiana tibetica*. Ref: 6, 660, 1521.

**8292 Gentianadine**

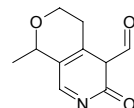
[6790-32-5] C<sub>8</sub>H<sub>7</sub>NO<sub>2</sub> (149.15). Pharm: Anti-inflammatory; antihypertensive; antipyretic; muscle relaxant; toxin. Source: AO LIE GE LONG DAN *Gentiana olgae*, AO SHI LONG DAN *Gentiana olivieri*, TU ER QI SI TAN LONG DAN *Gentiana turkestanorum*. Ref: 658.

**8293 Gentianaine**

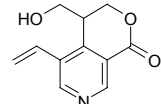
Gentiocrucine [58213-76-6] C<sub>6</sub>H<sub>7</sub>NO<sub>3</sub> (141.13). mp 149~150°C. Pharm: Anti-inflammatory. Source: AO LIE GE LONG DAN *Gentiana olgae*, AO SHI LONG DAN *Gentiana olivieri*, GAO JIA SUO LONG DAN *Gentiana caucasa*, TIAN SHAN QIN JIAO *Gentiana tianschanica*, TU ER QI SI TAN LONG DAN *Gentiana turkestanorum*, ZHONG YA QIN JIAO *Gentiana kaufmanniana*. Ref: 6, 658, 660.

**8294 Gentianal**

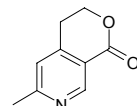
C<sub>10</sub>H<sub>11</sub>NO<sub>3</sub> (193.20). Source: DIAN LONG DAN *Gentiana rigescens*. Ref: 2, 660.

**8295 Gentianamine**

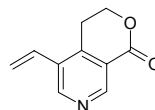
[22952-54-1] C<sub>11</sub>H<sub>11</sub>NO<sub>3</sub> (205.22). Pharm: Anti-inflammatory. Source: AO SHI LONG DAN *Gentiana olivieri*, TU ER QI SI TAN LONG DAN *Gentiana turkestanorum*. Ref: 658.

**8296 Gentianidine**

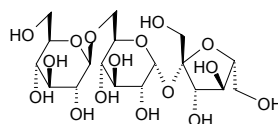
[2202-12-2] C<sub>9</sub>H<sub>9</sub>NO<sub>2</sub> (163.18). mp 131~132°C. Source: DIAN LONG DAN *Gentiana rigescens*, QIN JIAO *Gentiana macrophylla*, SHUI CAI *Menyanthes trifoliata*. Ref: 2, 660.

**8297 Gentianine**

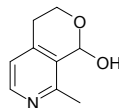
[439-89-4] C<sub>10</sub>H<sub>9</sub>NO<sub>2</sub> (175.19). mp 82~83°C; mp 79~80°C (ethanol)<sup>[5507]</sup>. Pharm: Anti-inflammatory (arthritis induced by formaldehyde or egg white); antiulcerative; inhibits gastric secretion; bidirectional action to CNS system (mus, central sedation at low dose, central stimulation at moderate dose and paralytic death at high dose); increases level of blood sugar (rat and mus, ip, 150~200mg/kg); inhibits frog heart *in vitro*; antihypertensive (gpg, anesthetic dog and anesthetic rbt); reduces blood capillary permeability; anti-allergic (rat, protects against sensitive shock caused by egg white); Protects against shock (gpg, induced by histamine); LD<sub>50</sub> (mus, orl) = 460mg/kg, (mus, ip) = 350mg/kg, (mus, iv) = 250~300mg/kg, (mus, sc) ≥ 500mg/kg. Source: BAI HUA LONG DAN *Gentiana algida*, CU JING QIN JIAO *Gentiana crassicaulis* (dried root: content = 0.41%<sup>[5508]</sup>), DA WU LI QIN JIAO *Gentiana dahurica* (dried root: content = 0.89%<sup>[5508]</sup>), DIAN LONG DAN *Gentiana rigescens*, GUAN HUA QIN JIAO *Gentiana siphonantha* (dried root: content = 0.19%<sup>[5508]</sup>), HU LU BA *Trigonella foenum-graecum*, LONG DAN *Gentiana scabra*, MA HUA JIAO *Gentiana straminea* (dried root: content = 0.52%<sup>[5508]</sup>), QIN JIAO *Gentiana macrophylla* (dried root: content = 1.43%<sup>[5508]</sup>), SHUI CAI *Menyanthes trifoliata*, TIAN SHAN QIN JIAO *Gentiana tianschanica*, XI ZANG QIN JIAO *Gentiana tibetica*. Ref: 2, 4, 658, 660, 5501, 5507, 5508.

**8298 Gentianose**

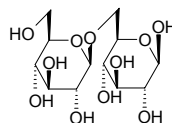
[25954-44-3] C<sub>18</sub>H<sub>32</sub>O<sub>16</sub> (504.45). mp 209°C. Source: LONG DAN *Gentiana scabra*. Ref: 2.

**8299 Gentiatibetine**

[26005-36-7] C<sub>9</sub>H<sub>11</sub>NO<sub>2</sub> (165.19). mp 161°C. Source: SHUI CAI GEN *Menyanthes trifoliata*. Ref: 6.

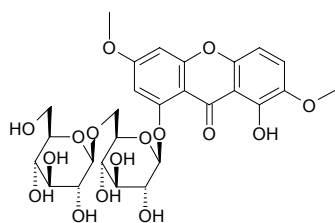
**8300 Gentiobiose**

[5996-00-9] C<sub>12</sub>H<sub>22</sub>O<sub>11</sub> (342.30). mp 190~195°C. Source: ZANG HONG HUA *Crocus sativus*. Ref: 6.

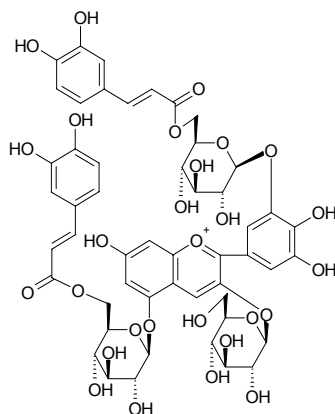


**8301 1-O-Gentiobiosyl-3,7-dimethoxy-8-hydroxyxanthone**

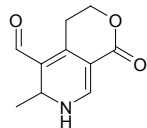
$C_{27}H_{32}O_{16}$  (612.55). Yellow Crystals, mp 184~186°C,  $[\alpha]_D^{20} = -33.63^\circ$  ( $c = 0.33$ , DMSO). Source: XI DIAN ZHANG YA CAI *Swertia punctata*. Ref: 2155.

**8302 Gentiodelphin**

[84331-34-0]  $C_{51}H_{53}O_{28}$  (1113.97). Source: MU YE LONG DAN *Gentiana makinoi*. Ref: 658.

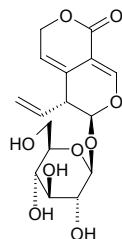
**8303 Gentioflavine**

[18058-50-9]  $C_{10}H_{11}NO_3$  (193.20). mp 218~220°C (dec). Source: LONG DAN *Gentiana scabra*, TIAN SHAN QIN JIAO *Gentiana tianschanica*. Ref: 2, 660.

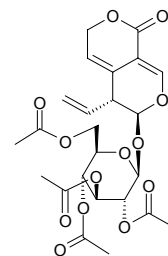
**8304 Gentiopicroside**

Gentiopicroin; Gentiopicroin [20831-76-9]  $C_{16}H_{20}O_9$  (356.33). mp 122°C. Pharm: Anti-inflammatory (swollen foot model caused by carrageenan); antiprotozoal (plasmidium); gastric secretion promotor. Source: BAO JING ZHANG YA CAI *Swertia franchetiana* (whole herb: content = 0.05%)<sup>[5508]</sup>, BU SHI LONG DAN *Gentiana burseri*, CHUAN DONG ZHANG YA CAI *Swertia davidii* (whole herb: content = 0.13%)<sup>[5508]</sup>, CU CAO LONG DAN *Gentiana scabra* var. *buesgeri* (root: mean content of 6 origins = 6.73%)<sup>[5508]</sup>, CU HUA ZHANG YA CAI *Swertia fasciculata* (whole herb: content = 0.054%)<sup>[5508]</sup>, CU JING QIN JIAO *Gentiana crassicaulis* (root: mean content = 8.96%)<sup>[5534]</sup>, CU ZHUANG LONG DAN *Gentiana robusta* (root: content = 3.63%)<sup>[5508]</sup>, DA WU LI QIN JIAO *Gentiana dahurica*, DA ZI ZHANG YA CAI *Swertia macrosperma* (whole herb: content = 0.02%)<sup>[5508]</sup>, DAN HUANG ZHANG YA CAI *Swertia punicea* var. *lutescens* (whole herb: content = 0.0045%)<sup>[5508]</sup>, DIAN LONG DAN *Gentiana rigescens* (root: mean content of 11 origins = 1.75%)<sup>[15, 5508]</sup>, DONG BEI LONG DAN *Gentiana manshurica* (root: mean

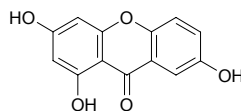
content of 11 origins = 5.01%)<sup>[15, 5508]</sup>, GUI ZHOU ZHANG YA CAI *Swertia kouitchensis* (whole herb: content = 3.61%)<sup>[5508]</sup>, HONG HUA LONG DAN *Gentiana rhodantha* (root: mean content of 2 origins = 0.06%)<sup>[5508]</sup>, HONG ZHI ZHANG YA CAI *Swertia erythrosticta* (whole herb: content = 0.5081%)<sup>[5508]</sup>, HUANG LONG DAN *Gentiana lutea* (the compound was isolated from the plant by H.Inouye et al. in 1968)<sup>[5505]</sup>, LONG DAN *Gentiana scabra* (root: content scope = 1.28%~7.62%, mean content = 4.61%)<sup>[15, 5508]</sup>, MA HUA JIAO *Gentiana straminea* (dried root: mean content = 23.3%)<sup>[5508]</sup>, MAN ZHI LONG DAN *Gentiana leptoclada* (whole herb: content = 0.01%)<sup>[5508]</sup>, MAO ZHANG YA CAI *Swertia pubescens* (whole herb: content = 0.0158%)<sup>[5508]</sup>, QIN JIAO *Gentiana macrophylla* (dried root: mean content = 15.6%)<sup>[5508]</sup>, SAN HUA LONG DAN *Gentiana triflora* (root: mean content = 3.68%)<sup>[15, 5508]</sup>, TOU HUA LONG DAN *Gentiana cephalantha* (root: content = 0.43%)<sup>[5508]</sup>, XI NAN ZHANG YA CAI *Swertia cincta* (whole herb: content = 0.06%)<sup>[5508]</sup>, XIA YE ZHANG YA CAI *Swertia angustifolia* (whole herb: content = 0.148%)<sup>[5508]</sup>, XIAN MAI ZHANG YA CAI *Swertia nervosa* (whole herb: content = 0.13%)<sup>[5508]</sup>, ZHANG YA CAI *Swertia pseudochinensis* (whole herb: content = 0.34%)<sup>[5508]</sup>, ZHE JIANG ZHANG YA CAI *Swertia hickinii* (whole herb: content = 1.84%)<sup>[5508]</sup>, ZI HONG ZHANG YA CAI *Swertia punicea* (whole herb: mean content = 0.54%)<sup>[5508]</sup>. Ref: 2, 658, 660, 5501, 5505, 5508, 5534.

**8305 Gentiopicroside tetraacetate**

$C_{24}H_{28}O_{13}$  (524.48). Source: LONG DAN *Gentiana scabra*. Ref: 2.

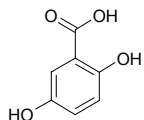
**8306 Gentioin**

1,3,7-Trihydroxyxanthone [529-49-7]  $C_{13}H_8O_5$  (244.21). Pharm: Antibacterial (*Mycobacterium tuberculosis*). Source: CHAN YI TENG *Securidaca inappendiculata* (stem), DI GEN JIN SI TAO *Hypericum degenii*, HUANG LONG DAN *Gentiana lutea*. Ref: 658, 5238.

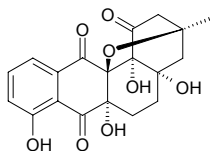


**8307 Genticic acid**

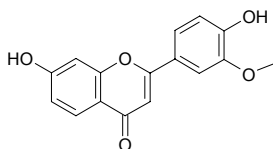
[490-79-9]  $C_7H_6O_4$  (154.12). mp 204.5~205.0°C. **Pharm:** Antibacterial; antirheumatic and analgesic (sodium salt); antiviral. **Source:** DA CHE QIAN *Plantago major*, HUI XIANG JING YE *Foeniculum vulgare*, JU AN *Eucalyptus grandis*, JU YU *Helianthus tuberosus*, LAI FU *Raphanus sativus*, LI MENG GEN *Citrus limonia*, LI MENG YE *Citrus limonia*, PU<sup>(2)</sup> TAO *Vitis vinifera*, SI ZI TAN *Pterocarpus santalinus*, ZAI PEI GAN JU *Citrus cultivars*, *Gentiana* sp. **Ref:** 6, 658, 660.

**8308 Gephyromycin**

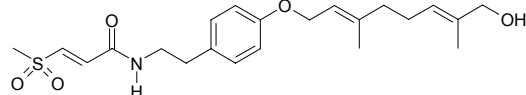
$C_{19}H_{18}O_8$  (374.35). White crystalline solid (MeOH), mp 212°C,  $[\alpha]_D^{20} = -51^\circ$  ( $c = 0.05$ , MeOH). **Pharm:** Glutaminergic agonist (neuronal cells)<sup>[5290]</sup>. **Source:** *Streptomyces griseus*. **Ref:** 5290.

**8309 Geraldone**

[21583-32-4]  $C_{16}H_{12}O_5$  (284.27). **Pharm:** Nodulation signal for metabiosis of pea and *Rhizobium leguminosarum*. **Source:** DI XIA CHE ZHOU CAO *Trifolium subterraneum*. **Ref:** 658.

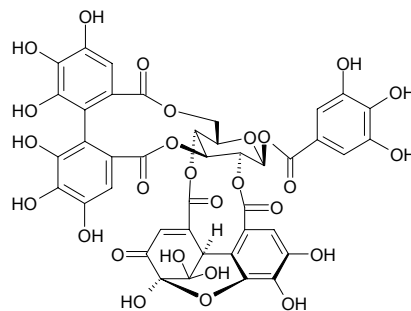
**8310 Gerambullol**

(*E*)-3-(Methylsulfonyl)-propenoic acid (2*E*,6*E*)-4-(8-hydroxy-3,7-dimethyl-2,6-octadienyloxy)-phenethyl amide  $C_{22}H_{31}NO_5S$  (421.56). Colorless crystals ( $Et_2O$ ), mp 128~129°C. **Source:** LV ZI SHAN XIAO JU *Glycosmis chlorosperma* (leaf). **Ref:** 3956.

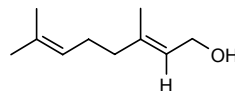
**8311 Geraniin**

[60976-49-0]  $C_{41}H_{28}O_{27}$  (952.66). **Pharm:** Inhibits adipose peroxidation (rat, hepatic microsomes); inhibits lipolysis (rat, adipose cells induced by adrenaline); promotes lipolysis (adipose cells induced by ACTH); TNF- $\alpha$  release inhibitor (BALB/3T3 cells, okadaic acid-stimulated, mean  $IC_{50} = 43 \mu mol/L$ )<sup>[4416]</sup>.

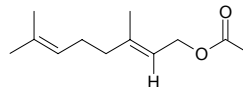
**Source:** AN MO LE *Phyllanthus emblica* (branch and leaf)<sup>[3094]</sup>, MAO GUO QI *Acer nikoense*, GU KE *Erythroxylum coca*, RI BEN MA SANG *Coriaria japonica*, YE WU TONG *Mallotus japonicus*, *Geranium* sp., *Euphorbia* sp., *Acer* sp., *Fuchsia* sp. **Ref:** 658, 3094, 4416.

**8312 Geraniol**

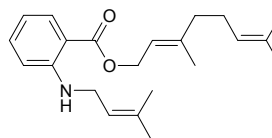
Geranyl alcohol [106-24-1]  $C_{10}H_{18}O$  (154.25). mp 230°C. **Pharm:** Antifungal (genus *Trichophyton* and *Microsporium audouini*, MIC = 0.39mg/mL); antiseptic; anthelmintic (gpg, ascaricide); treatment of chronic bronchitis; antineoplastic (leukemia); LD<sub>50</sub> (rat, orl) = 4.8g/kg, (rbt, iv) = 50mg/kg. **Source:** BAN BIAN SU *Elsholtzia ciliata*, CHAI HU *Bupleurum chinense*, DA MA SHI GE QIANG WEI *Rosa damascena*, DA SUAN *Allium sativum*, FA GUO QIANG WEI *Rosa gallica*, GAN JIANG *Zingiber officinale*, JIN YIN HUA *Lonicera japonica*, JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*], MANG NIU ER MIAO *Erodium stephanianum*, MEI GUI HUA *Rosa rugosa*, SHENG JIANG *Zingiber officinale*, SHUI SONG *Codium fragile*, WU WEI ZI *Schisandra chinensis*, YUE GUI ZI *Laurus nobilis*, YUN XIANG CAO *Cymbopogon distans*. **Ref:** 2, 4, 11, 638, 658, 660, 1582.

**8313 Geranyl acetate**

[105-87-3]  $C_{12}H_{20}O_2$  (196.29). bp 242~245°C/764mmHg. **Pharm:** Insect attractant. **Source:** TIAN MING JING *Carpesium abrotanoides*, HU LUO BO *Daucus carota* var. *sativa*, HU LUO BO ZI *Daucus carota* var. *sativa*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], JU YUAN *Citrus medica*, MEI GUI HUA *Rosa rugosa*, NING MENG *Citrus limon*, NING MENG PI *Citrus limon*, SHENG JIANG *Zingiber officinale*, TIAN MING JING *Carpesium abrotanoides*, TU XIANG RU *Origanum vulgare*, YE XIANG MAO *Cymbopogon goeringii*, YIN CHEN HAO *Artemisia capillaris*. **Ref:** 6, 658, 660.

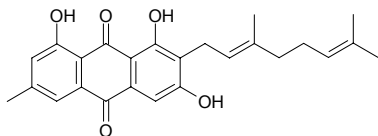
**8314 Geranyl N-Dimethylallylanthranilate**

$C_{22}H_{31}NO_2$  (341.50). Yellow oil. **Pharm:** Antibacterial (*Staphylococcus aureus*). **Source:** *Esenbeckia yaaxhokob* (leaf). **Ref:** 4929.

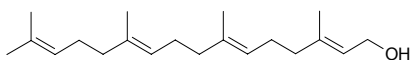


**8315 2-Geranylemodin**

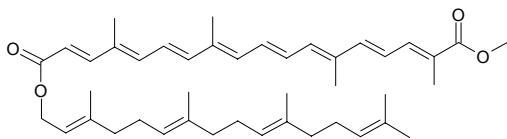
$C_{25}H_{26}O_5$  (406.48). **Pharm:** Cytotoxic (hmn small cell lung cancer NCI-H187 cell line,  $IC_{50} = (3.08 \pm 0.73) \mu\text{g/mL}$ , control Ellipticine,  $IC_{50} = (0.35 \pm 0.15) \mu\text{g/mL}$ ). **Source:** QIAO MU ZHUANG HUANG NIU MU *Cratogeomys arborescens* (stem cortex). **Ref:** 5061.

**8316 Geranylgeraniol**

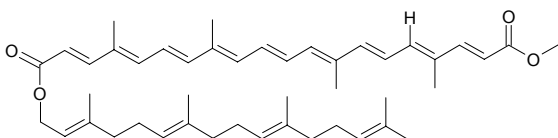
[24034-73-9]  $C_{20}H_{34}O$  (290.49). **Source:** YAMA *Linum usitatissimum*, HONG CHUN *Toona ciliata*. **Ref:** 658.

**8317 6-Geranylgeranyl 8'-methyl-6,8'-diapocaroten-6,8'-dioate**

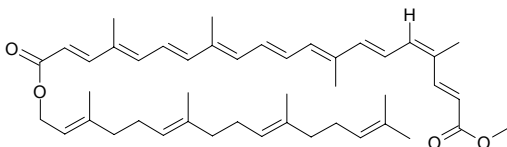
[247030-33-7]  $C_{43}H_{60}O_4$  (640.96). **Source:** HONG MU *Bixa orellana* (seed coat). **Ref:** 2352.

**8318 6-Geranylgeranyl 6'-methyl-(9'E)-6,6'-diapocaroten-6,6'-dioate**

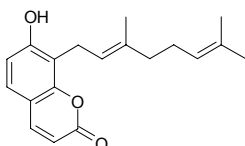
$C_{45}H_{62}O_4$  (666.99). **Source:** HONG MU *Bixa orellana* (seed coat). **Ref:** 2352.

**8319 6-Geranylgeranyl 6'-methyl-(9'Z)-6,6'-diapocaroten-6,6'-dioate**

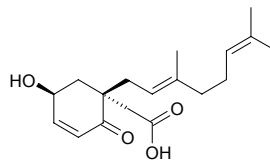
$C_{45}H_{62}O_4$  (666.99). **Source:** HONG MU *Bixa orellana* (seed coat). **Ref:** 2352.

**8320 8-Geranyl-7-hydroxycoumarin**

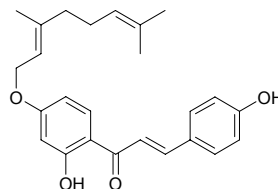
$C_{19}H_{22}O_3$  (298.39). **Source:** DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). **Ref:** 3075.

**8321 2-(1'-β-Geranyl-5'β-hydroxy-2'-oxocyclohex-3'-enyl)acetic acid**

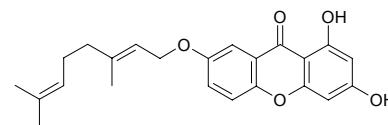
$C_{18}H_{26}O_4$  (306.41). Colorless oil,  $[\alpha]_D^{22} = -2.9^\circ$  ( $c = 0.1$ ,  $\text{CHCl}_3$ ). **Pharm:** Antiplasmodial (*in vitro Plasmodium falciparum*: D6,  $IC_{50} = 1462.00 \text{ ng/mL}$ , control Mefloquine,  $IC_{50} = 11.67 \text{ ng/mL}$ ; W2,  $IC_{50} = 2552.94 \text{ ng/mL}$ , control Mefloquine,  $IC_{50} = 4.78 \text{ ng/mL}$ ). **Source:** *Glossocalyx brevipes* (leaf). **Ref:** 4973.

**8322 4'-O-Geranylisoliquiritigenin**

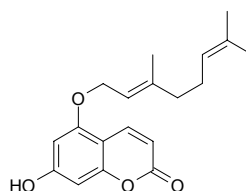
$C_{25}H_{28}O_4$  (392.50). **Pharm:** Antimalarial (antiplasmodial, chloroquine-resistant W2 strain of *Plasmodium falciparum*,  $IC_{50} = 8.7 \mu\text{mol/L}$ , control Chloroquine,  $IC_{50} = 0.094 \mu\text{mol/L}$ , control Quinine,  $IC_{50} = 0.209 \mu\text{mol/L}$ ; chloroquine-sensitive D6 strain of *Plasmodium falciparum*,  $IC_{50} = 10.6 \mu\text{mol/L}$ , control Chloroquine,  $IC_{50} = 0.009 \mu\text{mol/L}$ , control Quinine,  $IC_{50} = 0.044 \mu\text{mol/L}$ ). **Source:** *Milletia usaramensis* ssp. *usaramensis*. **Ref:** 3454.

**8323 7-Geranyloxy-1,3-dihydroxyxanthone**

$C_{23}H_{24}O_5$  (380.44). Yellow needles ( $\text{CH}_2\text{Cl}_2$ -hexane) mp 138~1408°C. **Source:** HUANG NIU MU *Cratogeomys cochinchinense*. **Ref:** 1907.

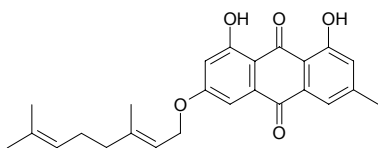
**8324 5-Geranyloxy-7-hydroxycoumarin**

$C_{19}H_{22}O_4$  (314.38). **Pharm:** EBV-EA inhibitor (TPA-induced,  $IC_{50} = 331 \text{ Mol ratio/32 pmol TPA}$ , control  $\beta$ -Carotene,  $IC_{50} = 400 \text{ Mol ratio/32 pmol TPA}$ ). **Source:** YUAN DONG JIU LI XIANG *Murraya siamensis* (leaf). **Ref:** 5255.

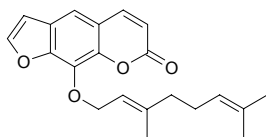


**8325 3-Geranyloxy-6-methyl-1,8-dihydroxyanthraquinone**

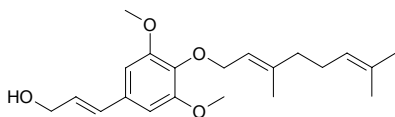
$C_{25}H_{26}O_5$  (406.48). Yellow brown crystals, mp 120~121°C. **Pharm:** Antitrypanosomal (*Trypanosoma brucei*,  $IC_{50} = (14.4 \pm 8.1) \mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = (0.0015 \pm 0.0009) \mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90 \mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = (0.39 \pm 0.15) \mu\text{g/mL}$ )<sup>[5008]</sup>; antileishmanial (*Leishmania donovani*,  $IC_{50} = (12.0 \pm 1.0) \mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = (0.23 \pm 0.03) \mu\text{g/mL}$ ; *Plasmodium falciparum*,  $IC_{50} = (25.6 \pm 1.4) \mu\text{g/mL}$ , control Chloroquine,  $IC_{50} = (0.055 \pm 0.02) \mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = (0.0011 \pm 0.0006) \mu\text{g/mL}$ )<sup>[5008]</sup>; cytotoxic (L6,  $IC_{50} > 90 \mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.0075 \mu\text{g/mL}$ ; brine shrimp lethality,  $IC_{50} = 21.3 \mu\text{g/mL}$ , control Cyclophosphamide,  $IC_{50} = 16.33 \mu\text{g/mL}$ )<sup>[5008]</sup>; cytotoxic inactive (hmn small cell lung cancer NCI-H187 cell line, control Ellipticine,  $IC_{50} = (0.35 \pm 0.15) \mu\text{g/mL}$ )<sup>[5061]</sup>. **Source:** DONG FANG WEI SI MU *Vismia orientalis* (stem cortex), QIAO MU ZHUANG HUANG NIU MU *Cratogeomys arborescens* (stem cortex). **Ref:** 5008, 5061.

**8326 8-Geranyloxy psoralen**

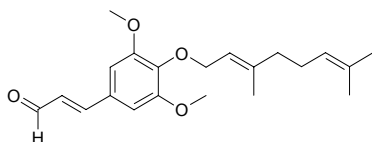
$C_{21}H_{22}O_4$  (338.41). mp 51~53°C. **Source:** YUN NAN QIANG HUO *Pleurospermum rivulorum*. **Ref:** 551.

**8327 Geranyloxy sinapyl alcohol**

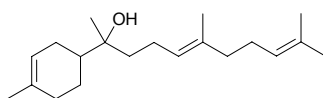
$C_{21}H_{30}O_4$  (346.47). **Pharm:** Cytotoxic (*in vitro*, A549,  $IC_{50} = 34 \mu\text{mol/L}$ ; HL-60,  $6.7 \mu\text{mol/L}$ ; KB,  $3.0 \mu\text{mol/L}$ ). **Source:** LIAN YE TUO WU *Ligularia nelumbifolia* (root, yield = 0.0040%dw). **Ref:** 4632.

**8328 Geranyloxy sinapyl aldehyde**

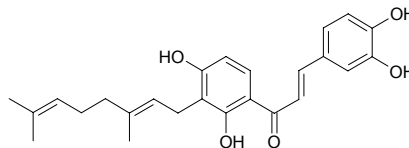
$C_{21}H_{28}O_4$  (344.45). **Pharm:** Cytotoxic (*in vitro*, A549,  $IC_{50} = 22 \mu\text{mol/L}$ ; HL-60,  $12 \mu\text{mol/L}$ ; KB,  $2.6 \mu\text{mol/L}$ ). **Source:** LIAN YE TUO WU *Ligularia nelumbifolia* (root, yield = 0.0018%dw). **Ref:** 4632.

**8329 9-Geranyl-terpineol**

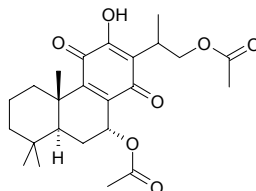
$C_{20}H_{34}O$  (290.49). Colorless oil,  $[\alpha]_D^{31.2} = -51.3^\circ$  ( $c = 0.046$ , MeOH). **Source:** DI ER CAO *Hypericum japonicum*. **Ref:** 762.

**8330 3'-Geranyl-2',3,4,4'-tetrahydroxychalcone**

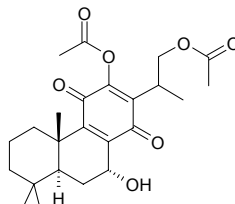
2',3,4,4'-Tetrahydroxy-3'-geranylchalcone  $C_{25}H_{28}O_5$  (408.50). Yellow powder, mp 131~132°C. **Pharm:** Antifungal (*Cladosporium cladosporioides*, TLC bioautography method,  $2 \mu\text{g/spot}$ , control Benlate)<sup>[3813]</sup>; antioxidant (DPPH scavenger, TLC bioautography method,  $1 \mu\text{g/spot}$ , control Vitamin E,  $1 \mu\text{g/spot}$ )<sup>[3813]</sup>;  $5\alpha$ -reductase inhibitor ( $IC_{50} = 104 \mu\text{mol/L}$ , control  $\alpha$ -Linolenic acid,  $IC_{50} = 116 \mu\text{mol/L}$ )<sup>[3979]</sup>. **Source:** GAO GUI BO LUO MI *Artocarpus nobilis* (leaf), MIAN BAO GUO *Artocarpus incisa* [Syn. *Artocarpus communis*] (leaf). **Ref:** 3813, 3979.

**8331 Gerardianin A**

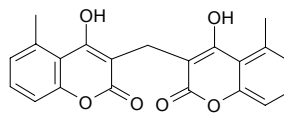
$C_{24}H_{32}O_7$  (432.52). mp 135°C. **Source:** XIA JI XIAN WEN XIANG CHA CAI *Isodon lophanthoides* var. *gerardiana*. **Ref:** 4067.

**8332 Gerardianin B**

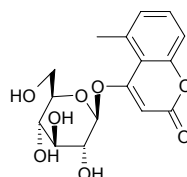
$C_{24}H_{32}O_7$  (432.52). mp 158°C. **Source:** XIA JI XIAN WEN XIANG CHA CAI *Isodon lophanthoides* var. *gerardiana*. **Ref:** 4067.

**8333 Gerberinol I**

[84153-78-6]  $C_{21}H_{16}O_6$  (364.36). Acicular crystals, mp 262~264°C. **Pharm:** Antibacterial (*Staphylococcus aureus*,  $MIC \leq 125 \mu\text{g/mL}$ ). **Source:** DA DING CAO *Gerbera anandria* [Syn. *Leibnitzia anandria*]. **Ref:** 77, 921, 1121.

**8334 Gerberinside**

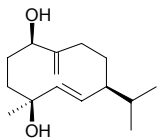
[76474-54-9]  $C_{16}H_{18}O_8$  (338.32). Acicular crystals, mp 153~154°C,  $[\alpha]_D^{21} = -109^\circ$  ( $c = 0.127$ , methanol). **Pharm:** Antibacterial (*Bacillus pyocyaneus*, infected mus, *in vivo*, survival rate = (57.8~71.0)%,  $ED_{50} = 46.2 \text{mg/kg}$ , *in vitro* no effects). **Source:** DA DING CAO *Gerbera anandria* [Syn. *Leibnitzia anandria*]. **Ref:** 900.



**8335 5E,10(14)-Germacradien-1 $\beta$ ,4 $\beta$ -diol**

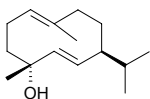
$C_{15}H_{26}O_2$  (238.37). Colorless prisms (*n*-hexane–EtOAc), mp 120–122°C.

**Pharm:** Antiplasmodial (*Plasmodium falciparum* strains,  $IC_{50}$  = 1.63  $\mu$ g/mL, control Chloroquine,  $IC_{50}$  = 0.0028  $\mu$ g/mL)<sup>[2383]</sup>. **Source:** YI NIAN PENG *Erigeron annuus* (aerial parts), SU MEN BAI JIU CAO *Erigeron sumatrensis* (aerial parts), *Reneilmia cincinnata* (fruits). **Ref:** 2383, 4338.

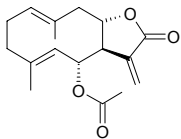
**8336 1(10)E,5E-Germacradien-4-ol**

$C_{15}H_{26}O$  (222.37). Brown oil,  $[\alpha]_D^{26}$  = 118° (*c* = 0.80,  $CHCl_3$ ). **Pharm:**

Antiplasmodial (*Plasmodium falciparum* strains,  $IC_{50}$  = 1.54  $\mu$ g/mL, control Chloroquine,  $IC_{50}$  = 0.0028  $\mu$ g/mL). **Source:** *Reneilmia cincinnata* (fruits). **Ref:** 2383.

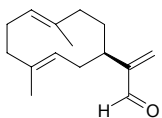
**8337 Germacranolide**

$C_{17}H_{22}O_4$  (290.36). **Source:** YUE GUI ZI *Laurus nobilis*. **Ref:** 6.

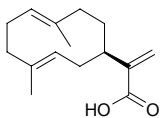
**8338 Germacra-1(10),4,11(13)-trien-12-ol**

$C_{15}H_{22}O$  (218.34). Slight-yellow oil with strong mossy odor.

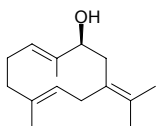
**Source:** MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. **Ref:** 5190.

**8339 Germacra-1(10),4,11(13)-trien-12-oic acid**

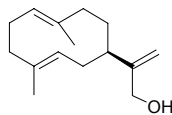
$C_{15}H_{22}O_2$  (234.34). White crystals. **Source:** MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. **Ref:** 5190.

**8340 Germacra-1(10),4,7(11)-trien-9 $\alpha$ -ol**

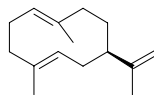
$C_{15}H_{24}O$  (220.36). bp 62–63°C/13mmHg. **Source:** XI XIN *Asarum sieboldii*. **Ref:** 6.

**8341 Germacra-1(10),4,11(13)-trien-12-ol**

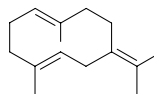
$C_{15}H_{24}O$  (220.36). Colorless or slight-yellow oil. **Source:** MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. **Ref:** 5190.

**8342 (+)-Germacrene A<sub>1</sub>**

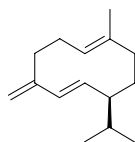
$C_{15}H_{24}$  (204.36). Colorless oil. **Source:** MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. **Ref:** 5190.

**8343 Germacrene B**

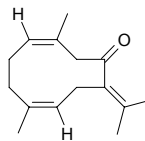
[15423-57-1]  $C_{15}H_{24}$  (204.36). **Source:** CHENG ZI PI *Citrus junos*. **Ref:** 6.

**8344 Germacrene D**

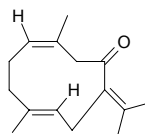
[23986-74-5]  $C_{15}H_{24}$  (204.36). **Source:** CHENG ZI PI *Citrus junos*. **Ref:** 6.

**8345 1-cis,5-cis Germacrone**

$C_{15}H_{22}O$  (218.34). bp 100°C/1mmHg. **Source:** MAN SHAN HONG *Rhododendron dauricum*. **Ref:** 6.

**8346 1-cis,5-trans Germacrone**

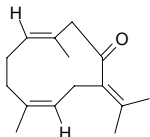
$C_{15}H_{22}O$  (218.34). bp 100°C/1mmHg. **Source:** MAN SHAN HONG *Rhododendron dauricum*. **Ref:** 6.



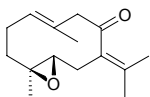


**8347 1-trans,5-trans Germacrone**

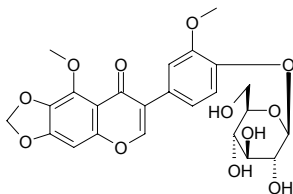
1(10)*E,4E*-Germacrone C<sub>15</sub>H<sub>22</sub>O (218.34). **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (32.7±1.3)%, control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%, *p*<0.01)<sup>[4150]</sup>; antitussive (mus); LD<sub>50</sub> = (mus, orl) = 970mg/kg. **Source:** MAN SHAN HONG *Rhododendron dauricum* (leaf: content scope = 0.045%–0.060%)<sup>[5501]</sup>, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 4150, 5501.

**8348 (+)-Germacrone 4,5-epoxide**

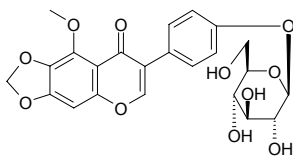
C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (29.5±4.5)%, control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%, *p*<0.01). **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 4150.

**8349 Germanaism A**

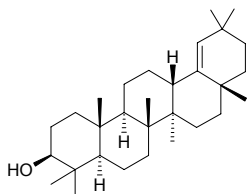
Iriskashmirianin 4'-*O*-β-*D*-glucoside C<sub>24</sub>H<sub>24</sub>O<sub>12</sub> (504.45). White amorphous solid, mp 187 °C, [α]<sub>D</sub><sup>24</sup> = +61.6° (*c* = 0.83, MeOH). **Source:** DE GUO YUAN WEI *Iris germanica* (rhizome). **Ref:** 4223.

**8350 Germanaism B**

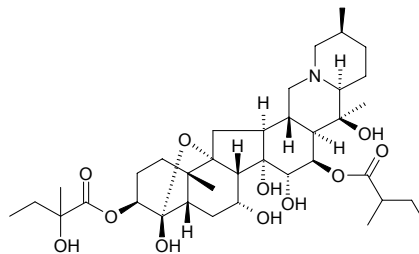
Nigrinin 4'-*O*-β-*D*-glucoside C<sub>23</sub>H<sub>22</sub>O<sub>11</sub> (474.43). Amorphous solid, [α]<sub>D</sub><sup>24</sup> = +50.2° (*c* = 0.57, MeOH). **Source:** DE GUO YUAN WEI *Iris germanica* (rhizome). **Ref:** 4223.

**8351 Germanicol**

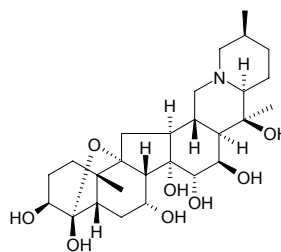
[465-02-1] C<sub>30</sub>H<sub>50</sub>O (426.73). mp 175–176°C (MeOH–CHCl<sub>3</sub>), lit. (Yamada et al., 1965) 176–177°C, [α]<sub>D</sub><sup>25</sup> = +6.0°. **Source:** SHAN WO JU *Lactuca indica*, XIE WEI JU *Koelipinia linearis* (aerial parts). **Ref:** 6, 3912.

**8352 Germerine**

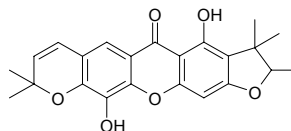
[508-67-8] C<sub>37</sub>H<sub>59</sub>NO<sub>11</sub> (693.88). mp 193–195°C (dec). **Source:** LI LU *Veratrum nigrum*. **Ref:** 6.

**8353 Germine**

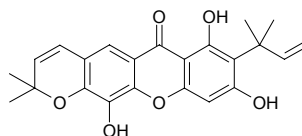
[508-65-6] C<sub>23</sub>H<sub>47</sub>NO<sub>8</sub> (509.65). **Pharm:** Causes arrhythmia and bradycardia; antihypertensive. **Source:** LV LI LU *Veratrum viride*. **Ref:** 658.

**8354 Gerontoxanthone A**

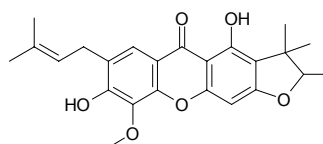
C<sub>23</sub>H<sub>22</sub>O<sub>6</sub> (394.43). **Pharm:** Cytotoxic (HSC-2 cells, CC<sub>50</sub> > 0.51mmol/L; HGF, CC<sub>50</sub> > 0.51mmol/L). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00095%dw). **Ref:** 3025.

**8355 Gerontoxanthone B**

C<sub>23</sub>H<sub>22</sub>O<sub>6</sub> (394.43). **Pharm:** Cytotoxic (HSC-2 cells, CC<sub>50</sub> = 0.39mmol/L; HGF, CC<sub>50</sub> > 0.51mmol/L). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00017%dw). **Ref:** 3025.

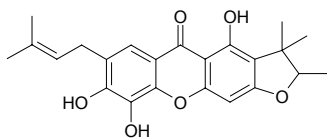
**8356 Gerontoxanthone E**

C<sub>24</sub>H<sub>26</sub>O<sub>6</sub> (410.47). [α]<sub>D</sub><sup>20</sup> = +2.2° (*c* = 0.5, MeOH). **Source:** ZHE TENG *Cudrania fruticosa* (root). **Ref:** 5074.

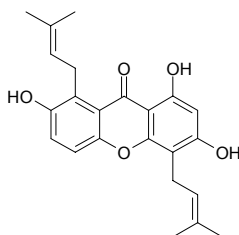


**8357 Gerontoxanthone G**

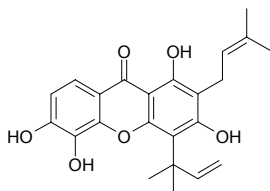
$C_{23}H_{24}O_6$  (396.44). **Pharm:** Cytotoxic (HSC-2 cells,  $CC_{50} > 0.51$ mmol/L; HGF,  $CC_{50} > 0.51$ mmol/L). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.0024%dw). **Ref:** 3025.

**8358 Gerontoxanthone H**

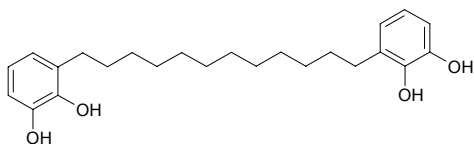
$C_{23}H_{24}O_5$  (380.44). **Pharm:** Cytotoxic (HSC-2 cells,  $CC_{50} = 0.12$ mmol/L; HGF,  $CC_{50} = 0.20$ mmol/L). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00062%dw). **Ref:** 3025.

**8359 Gerontoxanthone I**

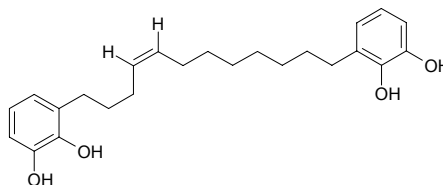
$C_{23}H_{24}O_6$  (396.44). **Pharm:** Cytotoxic (HSC-2 cells,  $CC_{50} = 0.43$ mmol/L; HGF,  $CC_{50} > 0.51$ mmol/L). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00115%dw). **Ref:** 3025.

**8360 Gerronemin A**

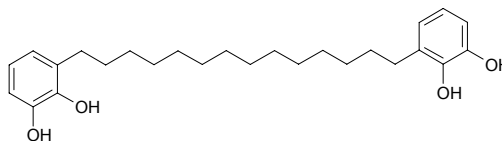
1,2-Dihydroxy-3-[12-(2,3-dihydroxyphenyl)dodecyl]benzene  $C_{24}H_{34}O_4$  (386.54). Colorless oil. **Pharm:** Cytotoxic (HL-60  $IC_{50} = 2.5$ μg/mL, U937  $IC_{50} = 1\sim 2$ μg/mL, L<sub>1210</sub>  $IC_{50} = 2.5$ μg/mL, COS-7  $IC_{50} = 15$ μg/mL, HeLa-S3  $IC_{50} > 40$ μg/mL; inhibits cellular macromolecular biosyntheses); anti-inflammatory (blocks inducible expression of proinflammatory enzymes hCOX-2 and iNOS promoter driven reporter gene,  $IC_{50} = 1\sim 5$ mg/mL). **Source:** *Gerronema* spp. **Ref:** 2022.

**8361 Gerronemin B**

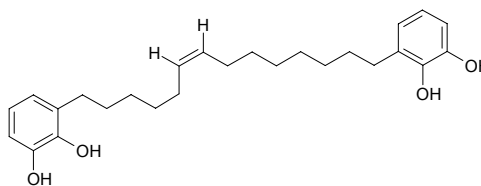
1,2-Dihydroxy-3-[12-(2,3-dihydroxyphenyl)-(Z)-dodec-4-enyl]benzene  $C_{24}H_{32}O_4$  (384.52). Colorless oil. **Pharm:** Cytotoxic (HL-60  $IC_{50} = 2.5$ μg/mL, U937  $IC_{50} = 3\sim 4$ μg/mL, L<sub>1210</sub>  $IC_{50} = 2.5$ μg/mL, COS-7  $IC_{50} = 15$ μg/mL, HeLa-S3  $IC_{50} > 40$ μg/mL; inhibits cellular macromolecular biosyntheses); anti-inflammatory (blocks inducible expression of proinflammatory enzymes hCOX-2 and iNOS promoter driven reporter gene,  $IC_{50} = 1\sim 5$ mg/mL). **Source:** *Gerronema* spp. **Ref:** 2022.

**8362 Gerronemin C**

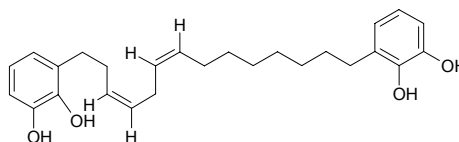
1,2-Dihydroxy-3-[14-(2,3-dihydroxyphenyl)tetradecyl]benzene  $C_{26}H_{38}O_4$  (414.59). Colorless oil. **Source:** *Gerronema* spp. **Ref:** 2022.

**8363 Gerronemin D**

1,2-Dihydroxy-3-[14-(2,3-dihydroxyphenyl)-(Z)-tetradec-6-enyl]benzene  $C_{26}H_{36}O_4$  (412.57). Colorless oil. **Pharm:** Cytotoxic (HL-60  $IC_{50} = 4$ μg/mL, U937  $IC_{50} = 1\sim 2$ μg/mL, L<sub>1210</sub>  $IC_{50} = 2.5$ μg/mL, COS-7  $IC_{50} = 15$ μg/mL, HeLa-S3  $IC_{50} > 40$ μg/mL; inhibits cellular macromolecular biosyntheses); anti-inflammatory (blocks inducible expression of proinflammatory enzymes hCOX-2 and iNOS promoter driven reporter gene,  $IC_{50} = 1\sim 5$ mg/mL). **Source:** *Gerronema* spp. **Ref:** 2022.

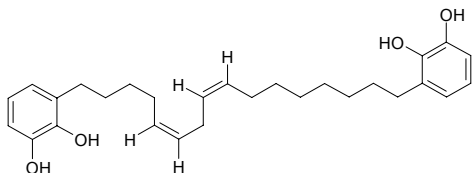
**8364 Gerronemin E**

1,2-Dihydroxy-3-[14-(2,3-dihydroxyphenyl)-(Z,Z)-tetradeca-3,6-dienyl]benzene  $C_{26}H_{34}O_4$  (410.56). Colorless oil. **Pharm:** Cytotoxic (HL-60  $IC_{50} = 2.5$ μg/mL, U937  $IC_{50} = 2$ μg/mL, L<sub>1210</sub>  $IC_{50} = 2.5$ μg/mL, COS-7  $IC_{50} = 15$ μg/mL, HeLa-S3  $IC_{50} > 40$ μg/mL; inhibits cellular macromolecular biosyntheses). **Source:** *Gerronema* spp. **Ref:** 2022.

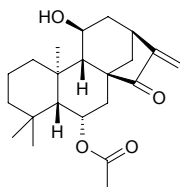


**8365 Gerronemin F**

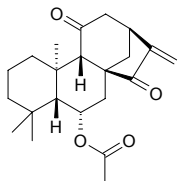
1,2-Dihydroxy-3-[16-(2,3-dihydroxyphenyl)-(Z,Z)-hexadeca-5,8-dienyl]benzene C<sub>28</sub>H<sub>38</sub>O<sub>4</sub> (438.61). Colorless oil. **Pharm:** Cytotoxic (HL-60 IC<sub>50</sub> = 4~5 μg/mL, U937 IC<sub>50</sub> = 1.5 μg/mL, L<sub>1210</sub> IC<sub>50</sub> = 2.5 μg/mL, COS-7 IC<sub>50</sub> = 15 μg/mL, HeLa-S3 IC<sub>50</sub> > 40 μg/mL; inhibits cellular macromolecular biosyntheses); anti-inflammatory (blocks inducible expression of proinflammatory enzymes hCOX-2 and iNOS promoter driven reporter gene, IC<sub>50</sub> = 1~5 mg/mL). **Source:** *Gerronema* spp. **Ref:** 2022.

**8366 Gesneroidin A**

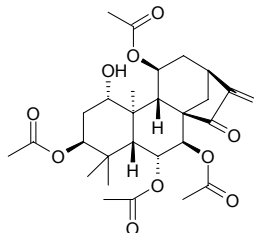
C<sub>22</sub>H<sub>32</sub>O<sub>4</sub> (360.50). mp 167°C, [α]<sub>D</sub><sup>20</sup> = -130.9° (c = 0.84, CHCl<sub>3</sub>). **Source:** JU TAI XIANG CHA CAI *Isodon gesneroides*. **Ref:** 4067.

**8367 Gesneroidin B**

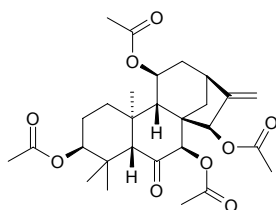
C<sub>22</sub>H<sub>30</sub>O<sub>4</sub> (358.48). mp 186°C, [α]<sub>D</sub><sup>20</sup> = +17.9° (c = 1.12, CHCl<sub>3</sub>). **Source:** JU TAI XIANG CHA CAI *Isodon gesneroides*. **Ref:** 4067.

**8368 Gesneroidin C**

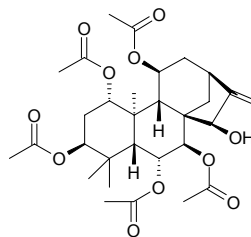
C<sub>28</sub>H<sub>38</sub>O<sub>10</sub> (534.61). mp 202°C, [α]<sub>D</sub><sup>22</sup> = -69.5° (c = 0.92, CHCl<sub>3</sub>). **Source:** JU TAI XIANG CHA CAI *Isodon gesneroides*. **Ref:** 4067.

**8369 Gesneroidin D**

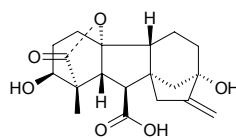
C<sub>28</sub>H<sub>38</sub>O<sub>9</sub> (518.61). mp 129.5~130.5°C, [α]<sub>D</sub><sup>20</sup> = +8.67° (c = 0.75, CHCl<sub>3</sub>). **Source:** JU TAI XIANG CHA CAI *Isodon gesneroides*. **Ref:** 4067.

**8370 Gesneroidin E**

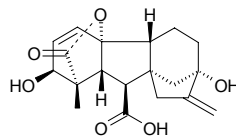
C<sub>30</sub>H<sub>42</sub>O<sub>11</sub> (578.66). mp 149~151.5°C, [α]<sub>D</sub><sup>20</sup> = -4.5° (c = 0.50, CHCl<sub>3</sub>). **Source:** JU TAI XIANG CHA CAI *Isodon gesneroides*. **Ref:** 4067.

**8371 Gibberellin A<sub>1</sub>**

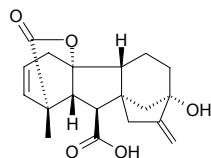
[545-97-1] C<sub>19</sub>H<sub>24</sub>O<sub>6</sub> (348.40). mp 255~258°C (dec). **Source:** YU JIN XIANG *Tulipa gesneriana*, YU JIN XIANG GEN *Tulipa gesneriana*. **Ref:** 6.

**8372 Gibberellin A<sub>3</sub>**

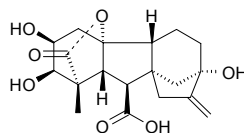
Gibberellic acid [7700605] C<sub>19</sub>H<sub>22</sub>O<sub>6</sub> (346.38). Crystals (ethyl acetate), mp 233~235°C (blister), [α]<sub>D</sub><sup>19</sup> = +86° (c = 2.12). **Pharm:** Estrogenic activity (female rat, ovariectomy model, 35mg/kg-d for 7 days, effectively treats uterine atrophy); phytohormone. **Source:** QIAN NIU ZI *Pharbitis nil*, YUAN YE QIAN NIU ZI *Pharbitis purpurea*. **Ref:** 6, 658, 660.

**8373 Gibberellin A<sub>5</sub>**

[561-56-8] C<sub>19</sub>H<sub>22</sub>O<sub>5</sub> (330.38). mp 260~261 (dec). **Source:** QIAN NIU ZI *Pharbitis nil*, YUAN YE QIAN NIU ZI *Pharbitis purpurea*, YU JIN XIANG GEN *Tulipa gesneriana*. **Ref:** 6, 660.

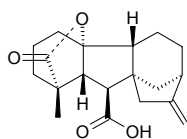
**8374 Gibberellin A<sub>8</sub>**

[7044-72-6] C<sub>19</sub>H<sub>24</sub>O<sub>7</sub> (364.40). mp 210~215°C (dec). **Source:** YU JIN XIANG GEN *Tulipa gesneriana*, YUAN YE QIAN NIU ZI *Pharbitis purpurea*. **Ref:** 6, 660.

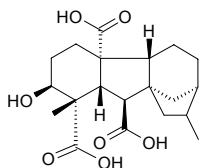


**8375 Gibberellin A<sub>9</sub>**

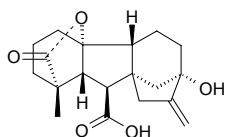
[427-77-0] C<sub>19</sub>H<sub>24</sub>O<sub>4</sub> (316.40). mp 208~211°C. Source: YU JIN XIANG GEN *Tulipa gesneriana*. Ref: 6.

**8376 Gibberellin A<sub>13</sub>**

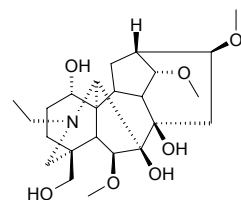
Fujic acid [2922-24-9] C<sub>20</sub>H<sub>28</sub>O<sub>7</sub> (380.44). mp 194~196°C (dec). Source: YU JIN XIANG GEN *Tulipa gesneriana*. Ref: 6.

**8377 Gibberellin A<sub>20</sub>**

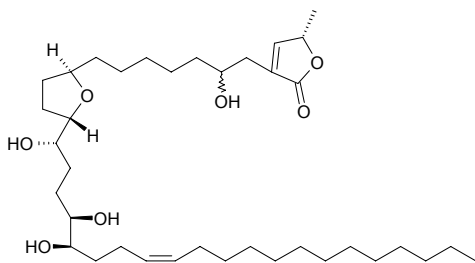
[19143-87-4] C<sub>19</sub>H<sub>24</sub>O<sub>5</sub> (332.40). Source: QIAN NIU ZI *Pharbitis nil*, WAN DOU *Pisum sativum*, YUAN YE QIAN NIU ZI *Pharbitis purpurea*. Ref: 6, 660.

**8378 Gigaconitine**

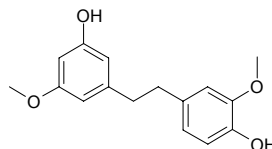
C<sub>24</sub>H<sub>39</sub>NO<sub>7</sub> (453.58). Colorless needles, mp 164~166°C (acetone). Source: JI LIN WU TOU *Aconitum kirinense*. Ref: 2515.

**8379 Gigantetronenin**

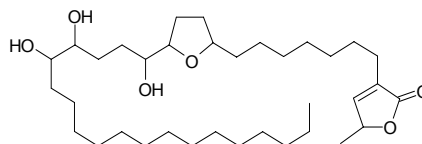
C<sub>37</sub>H<sub>66</sub>O<sub>7</sub> (622.93). Pharm: Cytotoxic (*in vitro* HepG2, EC<sub>50</sub> = 0.086 µg/mL, Hep3B, EC<sub>50</sub> = 3.85 µg/mL; control Doxorubicin, HepG2, EC<sub>50</sub> = 0.38 µg/mL, Hep3B, EC<sub>50</sub> = 0.36 µg/mL). Source: SHAN FAN LI ZHI *Annona montana* (seed). Ref: 5035.

**8380 Gigantol**

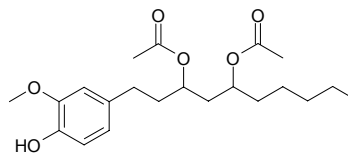
C<sub>16</sub>H<sub>18</sub>O<sub>4</sub> (274.32). Pharm: Platelet aggregation inhibitor (50 µmol/L, InRt = -10%; 100 µmol/L, InRt = 31%). Source: MI HUA SHI HU *Dendrobium densiflorum* (stem). Ref: 5171.

**8381 Gigantriocin**

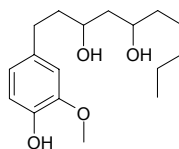
[134955-490] C<sub>35</sub>H<sub>64</sub>O<sub>6</sub> (580.90). mp 69~71°C, [α]<sub>D</sub><sup>25</sup> = +18° (CHCl<sub>3</sub>) Source: JIN PING GE NA XIANG *Goniothalamus leiocarpus*, DA GE NA XIANG *Goniothalamus giganteus*. Ref: 420, 1521.

**8382 [6]-Gingediacetate**

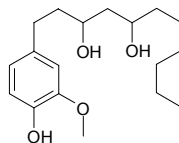
C<sub>21</sub>H<sub>32</sub>O<sub>6</sub> (380.49). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

**8383 [6]-Gingediol**

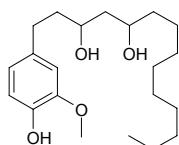
[53318-09-5] C<sub>17</sub>H<sub>28</sub>O<sub>4</sub> (296.41). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

**8384 [8]-Gingediol**

[53254-76-5] C<sub>19</sub>H<sub>32</sub>O<sub>4</sub> (324.46). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

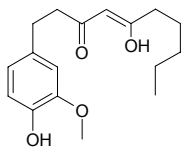
**8385 [10]-Gingediol**

[53254-77-6] C<sub>21</sub>H<sub>36</sub>O<sub>4</sub> (352.52). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

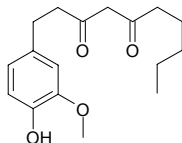


**8386 [6]-Gingerdione (enol form)**

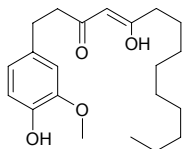
[61871-71-4] C<sub>17</sub>H<sub>24</sub>O<sub>4</sub> (292.38). **Pharm:** Prostaglandin biosynthesis inhibitor (*in vitro*). **Source:** SHENG JIANG *Zingiber officinale*, GAN JIANG *Zingiber officinale*. **Ref:** 2, 658.

**8387 [6]-Gingerdione (keto form)**

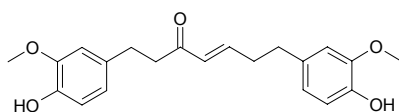
C<sub>17</sub>H<sub>24</sub>O<sub>4</sub> (292.38). **Source:** GAN JIANG *Zingiber officinale*. **Ref:** 2.

**8388 [10]-Gingerdione**

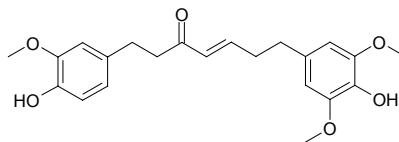
C<sub>21</sub>H<sub>32</sub>O<sub>4</sub> (348.49). **Pharm:** Anti-inflammatory (prostaglandin biosynthesis inhibitor, IC<sub>50</sub> = 4.9 μmol/L); antihepatotoxin (rat liver cells, *in vitro*, 1.0 mg/mL, liver toxicosis induced by CCl<sub>4</sub> GPT = (72±2)%, P<0.01); inhibits onset of senility (inhibits formation of active oxygen); prostaglandin synthetase inhibitor (IC<sub>50</sub> = 2.0 μmol/L). **Source:** GAN JIANG *Zingiber officinale*. **Ref:** 2, 1815, 1816, 1817, 1818.

**8389 Gingerenone A**

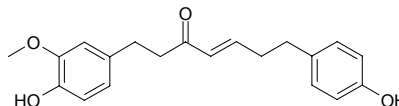
Dehydroxytetrahydrocurcumin [128700-97-0] C<sub>21</sub>H<sub>24</sub>O<sub>5</sub> (356.42). **Pharm:** Antifungal (*in vitro*). **Source:** GAN JIANG *Zingiber officinale*, SHENG JIANG *Zingiber officinale*. **Ref:** 2, 658.

**8390 Gingerenone B**

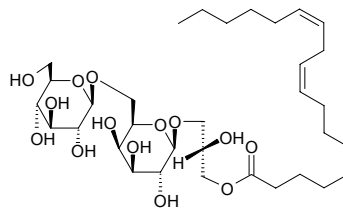
[128700-98-1] C<sub>22</sub>H<sub>26</sub>O<sub>6</sub> (386.45). **Source:** GAN JIANG *Zingiber officinale*, SHENG JIANG *Zingiber officinale*. **Ref:** 2.

**8391 Gingerenone C**

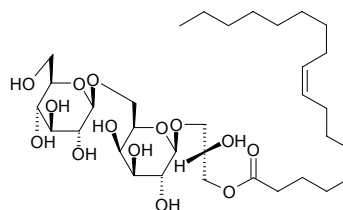
[128701-01-9] C<sub>20</sub>H<sub>22</sub>O<sub>4</sub> (326.40). **Source:** GAN JIANG *Zingiber officinale*, SHENG JIANG *Zingiber officinale*. **Ref:** 2.

**8392 Gingerglycolipid B**

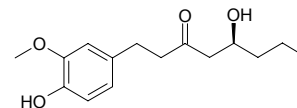
C<sub>33</sub>H<sub>58</sub>O<sub>14</sub> (678.82). White amorphous powder, [α]<sub>D</sub> = +50.9° (c = 7.5, MeOH). **Pharm:** PAF antagonist. **Source:** XI LAN ROU GUI *Cinnamomum zeylanicum*. **Ref:** 2199.

**8393 Gingerglycolipid C**

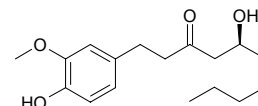
C<sub>33</sub>H<sub>60</sub>O<sub>14</sub> (680.84). White amorphous powder, [α]<sub>D</sub> = +26.9° (c = 10.0, MeOH). **Pharm:** PAF antagonist. **Source:** XI LAN ROU GUI *Cinnamomum zeylanicum*. **Ref:** 2199.

**8394 [4]-Gingerol**

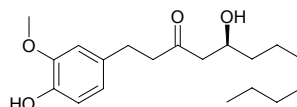
C<sub>15</sub>H<sub>22</sub>O<sub>4</sub> (266.34). **Source:** GAN JIANG *Zingiber officinale*, SHENG JIANG *Zingiber officinale*. **Ref:** 2.

**8395 [6]-Gingerol**

C<sub>17</sub>H<sub>26</sub>O<sub>4</sub> (294.39). bp 277~279°C/6mmHg. **Pharm:** CYP3A4 inhibitor (IC<sub>50</sub> = 36.4 μmol/L, control Ketoconazole, IC<sub>50</sub> = 0.245 μmol/L)<sup>[4669]</sup>, CYP2D6 inhibitor inactive (IC<sub>50</sub> > 100 μmol/L, control Quinidine, IC<sub>50</sub> = 0.078 μmol/L)<sup>[4669]</sup>; antiemetic; anti-seronine; cyclo-oxygenase inhibitor. **Source:** FANG XIANG JIANG *Zingiber aromaticum* (rhizome: yield = 0.0023% dw)<sup>[4669]</sup>, GAN JIANG *Zingiber officinale*, SHENG JIANG *Zingiber officinale* (rhizome: mean content of 4 origins = 0.700%<sup>[5508]</sup>). **Ref:** 2, 6, 658, 4669, 5508.

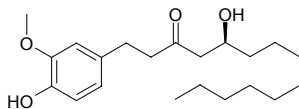
**8396 [8]-Gingerol**

C<sub>19</sub>H<sub>30</sub>O<sub>4</sub> (322.45). **Pharm:** CYP3A4 inhibitor (IC<sub>50</sub> = 81.6 μmol/L, control Ketoconazole IC<sub>50</sub> = 0.24 μmol/L)<sup>[4449]</sup>, CYP2D6 inhibitor (IC<sub>50</sub> = 68.7 μmol/L, control Quinidine IC<sub>50</sub> = 0.068 μmol/L)<sup>[4449]</sup>. **Source:** FANG XIANG JIANG *Zingiber aromaticum* (rhizome), GAN JIANG *Zingiber officinale*. **Ref:** 2, 4449.

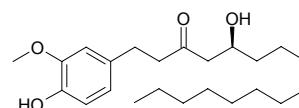


**8397 [10]-Gingerol**

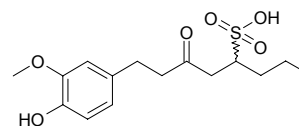
$C_{21}H_{34}O_4$  (350.50). **Pharm:** CYP3A4 inhibitor ( $IC_{50} = 41.3\mu\text{mol/L}$ , control Ketoconazole  $IC_{50} = 0.24\mu\text{mol/L}$ )<sup>[4449]</sup>; CYP2D6 inhibitor inactive ( $IC_{50} > 100\mu\text{mol/L}$ , control Quinidine  $IC_{50} = 0.068\mu\text{mol/L}$ )<sup>[4449]</sup>. **Source:** FANG XIANG JIANG *Zingiber aromaticum* (rhizome), GAN JIANG *Zingiber officinale*. **Ref:** 2, 4449.

**8398 [12]-Gingerol**

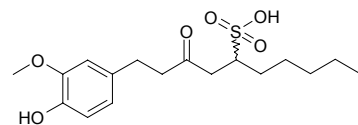
$C_{23}H_{38}O_4$  (378.56). **Source:** GAN JIANG *Zingiber officinale*. **Ref:** 2.

**8399 4-Gingesulfonic acid**

$C_{15}H_{22}O_6S$  (330.40). Pale brownish amorphous powder, mp 180–190°C (dec),  $[\alpha]_D^{21} = +1.0^\circ$  ( $c = 2.00$ , MeOH). **Source:** SHENG JIANG *Zingiber officinale*. **Ref:** 3361.

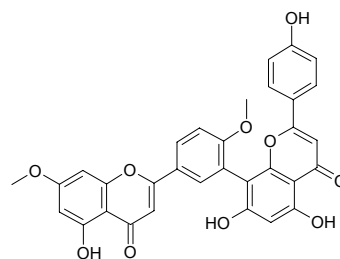
**8400 6-Gingesulfonic acid**

$C_{17}H_{26}O_6S$  (358.46). White amorphous powder, mp 177–181°C (dec),  $[\alpha]_D^{21} = +0.7^\circ$  ( $c = 1.00$ , MeOH). **Source:** SHENG JIANG *Zingiber officinale*. **Ref:** 3361.

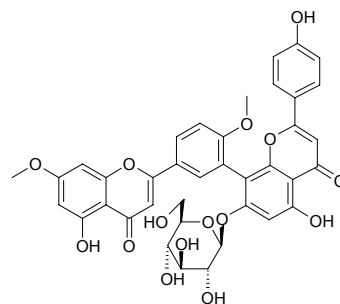
**8401 Ginkgetin**

[481-46-9]  $C_{32}H_{22}O_{10}$  (566.53). Yellow powder, mp 330°C (dec). **Pharm:** Antihypercholesterolemic (reduces the level of cholesterol in serum and normalizes the ratio between phospholipid to cholesterol); treatment of angina pectoris; phospholipase  $A_2$  inhibitor<sup>[4415]</sup>; anti-inflammatory (reduces arthritic inflammation in rat adjuvant-induced arthritis as well as abdominal constriction caused by acetic acid,  $ID_{50} = 8.9\text{mg/kg}$ )<sup>[4415]</sup>; anti-inflammatory (inhibits croton oil-induced ear skin oedema by down-regulation of COX-2)<sup>[4415]</sup>; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>. **Source:** BAI GUO *Ginkgo biloba*, BAI GUO YE *Ginkgo biloba* (leaf: mean content = 0.653%<sup>[5508]</sup>); the compound was first isolated from the plant by Kōichi Nakazawa in 1941<sup>[5505]</sup>, CHAO XIAN YIN YANG HUO *Epimedium koreanum*, HAN SHENG JUAN BAI *Selaginella stauntoniana* (dried whole herb: content = 0.164%<sup>[5508]</sup>), MAO ZHI JUAN BAI *Selaginella braunii* (dried whole herb: content = 0.121%<sup>[5508]</sup>), RI BEN CU FEI *Cephalotaxus*

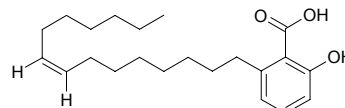
*harringtonia*, SAN JIAN SHAN *Cephalotaxus fortunei*, YUAN ZHI JUAN BAI *Selaginella sanguinolenta* (dried whole herb: content = 0.363%<sup>[5508]</sup>), ZHI MU *Anemarrhena asphodeloides*, *Dacrydium* sp. **Ref:** 2, 442, 658, 4415, 5501, 5505, 5508.

**8402 Ginkgetin 7''-O-β-D-glycopyranoside**

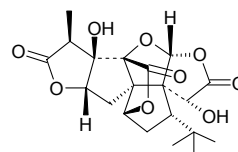
$C_{38}H_{32}O_{15}$  (728.67). Yellow amorphous powder,  $[\alpha]_D^{20} = +5.5^\circ$  ( $c = 0.004$ , MeOH). **Source:** BAI GUO YE *Ginkgo biloba*. **Ref:** 4512.

**8403 Ginkgolic acid**

Ginkgolic acid [22910-60-7]  $C_{22}H_{34}O_3$  (346.51). Yellowish oil, mp 41–43°C. **Pharm:** Antibacterial (*in vitro*, *Mycobacterium tuberculosis*); antineoplastic; antimicrobial; prostaglandin biosynthetase inhibitor; molluscicide; prolyl endopeptidase inhibitor ( $K_i = 0.87\mu\text{mol/L}$ ,  $IC_{50} = (0.86 \pm 0.04)\mu\text{mol/L}$ , control Oleic acid  $IC_{50} = (31.3 \pm 2.4)\mu\text{mol/L}$ , Salicylic acid  $IC_{50} = (1650 \pm 70)\mu\text{mol/L}$ , Z-Pro-prolinol  $IC_{50} = (0.00219 \pm 0.00022)\mu\text{mol/L}$ )<sup>[4098]</sup>. **Source:** BAI GUO *Ginkgo biloba* (dried ripe seed: content = 0.0222%<sup>[5508]</sup>), BAI GUO YE *Ginkgo biloba*, DU XIAN ZI *Anacardium occidentale*. **Ref:** 4, 658, 4098, 5501, 5508.

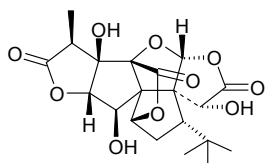
**8404 Ginkgolide A**

[15291-75-5]  $C_{20}H_{24}O_9$  (408.41). Crystals (ethanol), mp 300°C,  $[\alpha]_D^{24} = -53.4^\circ$  ( $c = 1$ , ethanol).<sup>[5507]</sup> **Pharm:** Enhances effects of cytotoxic drugs against cancer metastasis; platelet aggregation inhibitor (rbt, due to PAF, *in vitro*,  $IC_{50} = 94\mu\text{mol/L}$ ); insect antifeedant; PAF receptor antagonist; nerve protectant (mus, 50mg/kg), Antiasthmatic; insect antifeedant. **Source:** BAI GUO *Ginkgo biloba*, BAI GUO GEN *Ginkgo biloba*, BAI GUO YE *Ginkgo biloba* (leaf: mean content of 12 samples = 2.56%<sup>[5508]</sup>). **Ref:** 6, 658, 900, 5507, 5508

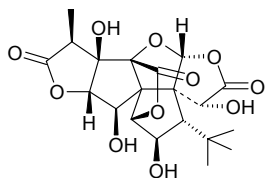


**8405 Ginkgolide B**

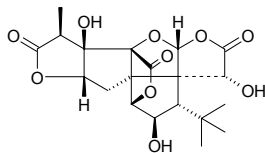
[15291-77-7] C<sub>20</sub>H<sub>24</sub>O<sub>10</sub> (424.41). Crystals (ethanol), mp 300°C, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -52.6° (c = 1, ethanol).<sup>[5507]</sup> **Pharm:** Antibacterial (*Bacillus fusiformis*); enhances effects of cytotoxic drugs against cancer metastasis; increases fertility; platelet aggregation inhibitor (rbt, mus and pig, due to PAF, *in vitro*); insect antifeedant; PAF receptor antagonist; nerve protectant; reduces nephrotoxicity of cyclosporine; anti-hypotension (PAF-induced, ID<sub>50</sub> = (38.5±2.7)μmol/kg, control CV-3988, ID<sub>50</sub> = (2.4±1.2)μmol/kg)<sup>[5050]</sup>; anti-inflammatory (to determine release of lysosome enzyme from polymorphonuclear (PMN) leukocytes induced by PAF of rats, 10μmol/L, InRt = 58.9%)<sup>[3891, 5013]</sup>. **Source:** BAI GUO *Ginkgo biloba*, BAI GUO GEN *Ginkgo biloba*, BAI GUO YE *Ginkgo biloba* (leaf: mean content of 12 samples = 1.40%<sup>[5508]</sup>). **Ref:** 6, 900, 3891, 5013, 5050, 5507, 5508.

**8406 Ginkgolide C**

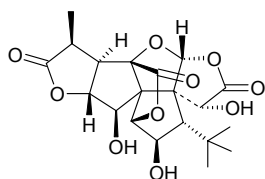
[15291-76-6] C<sub>20</sub>H<sub>24</sub>O<sub>11</sub> (440.41). Crystals (ethanol), mp 300°C, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -14.7° (c = 1, ethanol). **Pharm:** Platelet aggregation inhibitor (rbt, *in vitro*, due to PAF, IC<sub>50</sub> = 17μmol/L); PAF receptor antagonist. **Source:** BAI GUO GEN *Ginkgo biloba*, BAI GUO YE *Ginkgo biloba* (leaf: mean content of 12 samples = 1.48%<sup>[5508]</sup>). **Ref:** 6, 900, 5508.

**8407 Ginkgolide J**

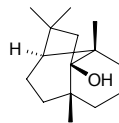
[107438-79-9] C<sub>20</sub>H<sub>24</sub>O<sub>10</sub> (424.41). Crystals, mp 322°C, [ $\alpha$ ]<sub>589nm</sub><sup>20</sup> = -2.5° (c = 1, dioxocyclohexane). **Pharm:** Platelet aggregation inhibitor (due to PAF); PAF receptor antagonist. **Source:** BAI GUO *Ginkgo biloba*. **Ref:** 943, 1036, 1078.

**8408 Ginkgolide M**

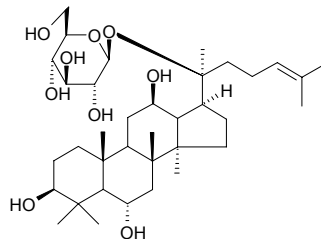
[15291-78-8] C<sub>20</sub>H<sub>24</sub>O<sub>10</sub> (424.41). Crystals (ethanol), mp > 280°C (dec), [ $\alpha$ ]<sub>D</sub> = -39° (c = 1, dioxocyclohexane). **Pharm:** PAF receptor antagonist. **Source:** BAI GUO GEN *Ginkgo biloba*. **Ref:** 6, 1035, 1036, 1164.

**8409 Ginsenosol**

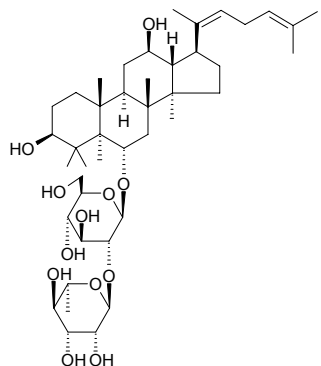
C<sub>15</sub>H<sub>26</sub>O (204.36). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 5330.

**8410 Ginsenoside F<sub>1</sub>**

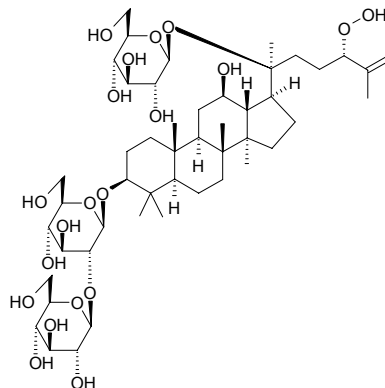
C<sub>36</sub>H<sub>62</sub>O<sub>9</sub> (638.89). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 5064.

**8411 Ginsenoside F<sub>4</sub>**

3β,6α,12β-Trihydroxy-20(22),24-dammardiene-6-O-α-L-rhamnopyranosyl(1→2)-O-β-D-glucopyranoside C<sub>42</sub>H<sub>70</sub>O<sub>12</sub> (767.02). mp 177~180°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +10.8° (c = 0.5, MeOH). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 8.

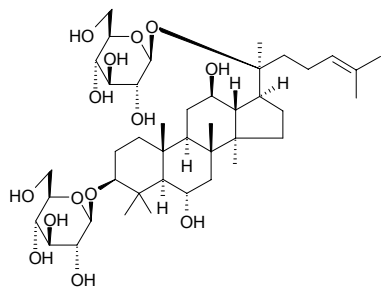
**8412 Ginsenoside I**

C<sub>48</sub>H<sub>82</sub>O<sub>20</sub> (979.18). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 8.

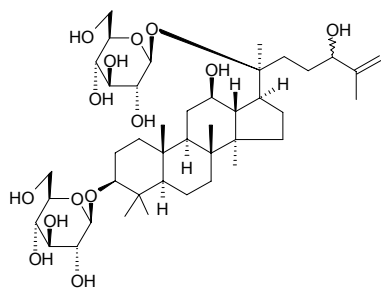


**8413 Ginsenoside Ia**

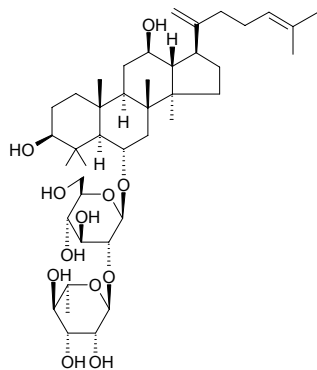
20(*S*)-Protopanaxatriol-3,20-di-*O*- $\beta$ -*D*-glucopyranoside C<sub>42</sub>H<sub>72</sub>O<sub>14</sub> (801.03). White powder, mp 190~191°C. Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 8.

**8414 Ginsenoside Ib**

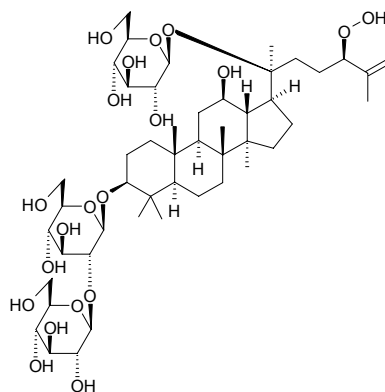
3 $\beta$ ,12 $\beta$ ,20(*S*),24 $\zeta$ -Tetrahydroxy-20-*O*- $\beta$ -*D*-glucopyranosyl-3-*O*- $\beta$ -*D*-glucopyranoside C<sub>42</sub>H<sub>72</sub>O<sub>14</sub> (801.23). White powder, mp 187~188°C. Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 8.

**8415 Ginsenoside Ic**

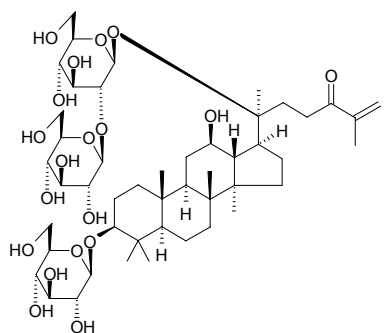
3 $\beta$ ,6 $\alpha$ ,12 $\beta$ -Trihydroxy-20(22),24-dammar-20(*H*),24-diene-6-*O*- $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 2)-*O*- $\beta$ -*D*-glucopyranoside C<sub>42</sub>H<sub>70</sub>O<sub>12</sub> (767.02). White powder. Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 8.

**8416 Ginsenoside II**

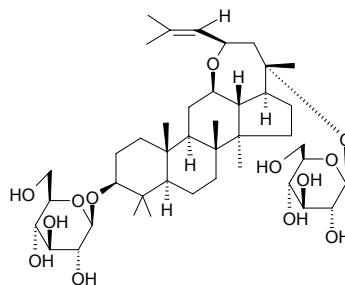
3 $\beta$ -*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 2)-*O*- $\beta$ -*D*-glucopyranosyl-20-*O*- $\beta$ -*D*-glucopyranosyl-3 $\beta$ ,12 $\beta$ ,20(*S*)-trihydroxy-24-hydrogenperoxide-dammar-25-ene C<sub>48</sub>H<sub>82</sub>O<sub>20</sub> (979.18). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 8.

**8417 Ginsenoside III**

C<sub>48</sub>H<sub>80</sub>O<sub>19</sub> (961.16). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 8.

**8418 Ginsenoside La**

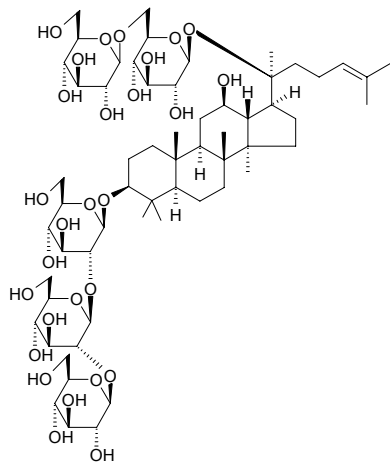
[123617-34-5] C<sub>42</sub>H<sub>70</sub>O<sub>13</sub> (783.02). White powder (methanol), mp 179~180°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -18.4° (pyridine). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 155, 1521.



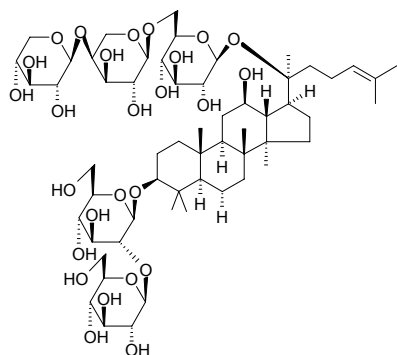


**8419 Ginsenoside Ra<sub>0</sub>**

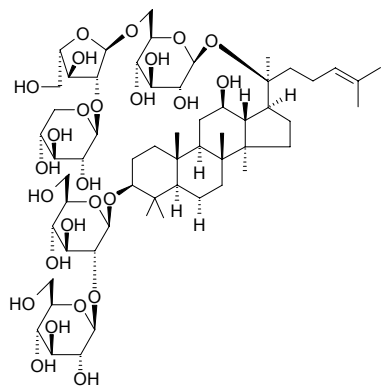
20(S)-Protopanaxadiol 3-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside, 20-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside [112722-00-6] C<sub>60</sub>H<sub>102</sub>O<sub>28</sub> (1271.47). White acicular crystals, mp 192~193°C. **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], XI YANG SHEN *Panax quinquefolium*. **Ref:** 2, 87.

**8420 Ginsenoside Ra<sub>1</sub>**

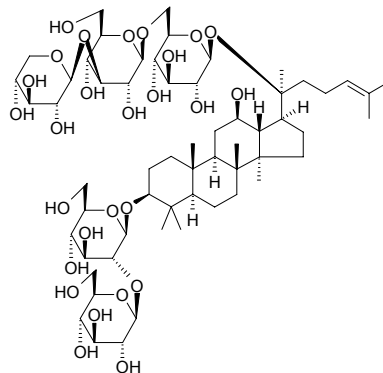
[83459-41-0] C<sub>58</sub>H<sub>98</sub>O<sub>26</sub> (1211.41). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 1521.

**8421 Ginsenoside Ra<sub>2</sub>**

[83459-42-1] C<sub>58</sub>H<sub>98</sub>O<sub>26</sub> (1211.41). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 2, 1521.

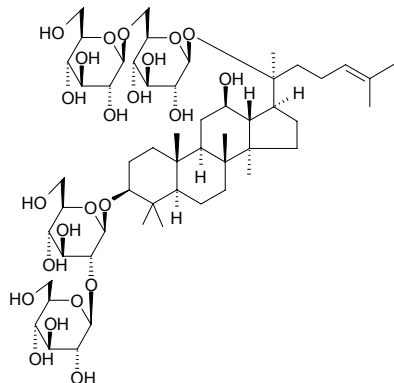
**8422 Ginsenoside Ra<sub>3</sub>**

[90985-77-6] C<sub>59</sub>H<sub>100</sub>O<sub>27</sub> (1241.44). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 2, 1521.

**8423 Ginsenoside Rb<sub>1</sub>**

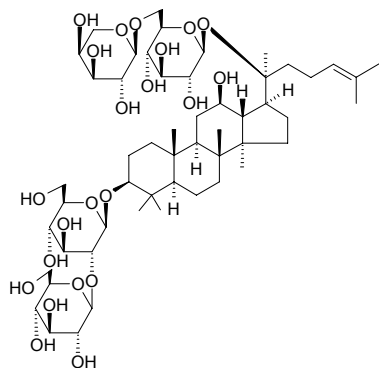
Sanchinoside E<sub>1</sub>; Gypenoside III [41753-43-9] C<sub>54</sub>H<sub>92</sub>O<sub>23</sub> (1109.32). White powder (ethanol:butyl alcohol = 1:1), mp 197~198°C,  $[\alpha]_D^{22} = +12.42^\circ$  ( $c = 0.91$ , methanol). **Pharm:** Antiarrhythmic (rat arrhythmia caused by BaCl<sub>2</sub>); inhibits fatigue; antiviral; inhibits replication of HSV-1; bidirectional action to blood pressure (mus, first increases and then lowers blood pressure, while heart rate slows); calcium antagonist; increases blood pressure (injecting 0.3 $\mu$ L into lateral area of rat hypothalamus, average arteriotony noticeably rising); antioxidant (rat hepatic homogenate, caused by H<sub>2</sub>O<sub>2</sub>, IC<sub>50</sub> = 644.8 $\mu$ g/mL); cAMP phosphodiesterase inhibitor (*in vitro*, IC<sub>50</sub> = 137 $\mu$ mol/L); antihypercholesterolemic (reduces the level of cholesterol in serum); promotes biosynthesis of DNA, protein and lipid (murine marrow cells); enhances cytotoxic effects of daunomycin and vincalucoblastine; promotes plasma secretion of corticosterone (ED<sub>50</sub> = 112 $\mu$ mol/kg); liver and nerve protectant; reduces uterine contraction (gpg, *in vitro*, caused by acetylcholine); vasodilator (dog); anti-inflammatory (modulator of cytokine network: inhibits TNF- $\alpha$  production in RAW264.7 and U937 cells stimulated with LPS, mean IC<sub>50</sub> = 56.5 $\mu$ mol/L and 51.3 $\mu$ mol/L, respectively)<sup>[4416]</sup>; antinociception (i.t. injected 0.7 $\mu$ g substance P-induced pain model, EC = 50 $\mu$ g i.t.)<sup>[5474]</sup>; neurite outgrowth enhancer (hmn neuroblastoma SK-N-SH cells, 100 $\mu$ mol/L, total length of neurites = 149.3 $\mu$ m, number of varicosity per cell = 0.93,  $p < 0.05$ ; control, total length of neurites = 45.3 $\mu$ m, number of varicosity per cell = 0.10)<sup>[4647]</sup>; hepatoprotective (inhibits activation of macrophages, inhibits increase in sALT and sAST levels, *in vivo*, D-GalN/LPS-induced liver injury in mouse, 100mg/kg ip for sALT, InRt = 33%; 100mg/kg ip for sAST, InRt = 40%; control Hydrocortisone, 20mg/kg ip for sALT, InRt = 99%; 20mg/kg ip for sAST, InRt = 97%)<sup>[4702]</sup>. **Source:** HUI GUO JIAO GU LAN *Gynostemma yixingense*, JIAO GU LAN *Gynostemma pentaphyllum*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (rhizome: content = 0.88%<sup>[5508]</sup>; content = 0.56%<sup>[5501]</sup>), SAN QI HUA LEI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (flower bud: yield = 0.24%dw)<sup>[4702]</sup>, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (flower: mean content of 8 origins = 1.60%<sup>[5525]</sup>), SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (rhizome: content = 4.1%<sup>[5508]</sup>), XI YANG SHEN *Panax quinquefolium* (rhizome: content = 1.9%<sup>[5508]</sup>), YU YE SAN QI *Panax japonicus* var. *bipinnatifidus*, ZHU JIE SAN QI *Panax*

*pseudo-ginseng* var. *japonicus* (rhizome: content = 1.7%<sup>[5508]</sup>, yield = 0.025%<sup>[4647]</sup>). Ref: 2, 4, 87, 135, 329, 613, 900, 4139, 4416, 4647, 4702, 5474, 5501, 5508, 5525.



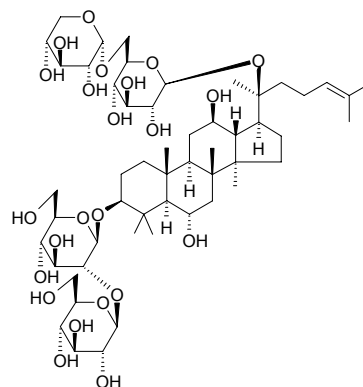
#### 8424 Ginsenoside Rb<sub>2</sub>

[11021-13-9] C<sub>53</sub>H<sub>90</sub>O<sub>22</sub> (1079.30). White powder (ethanol:butyl alcohol = 1:5), mp 200–203°C, [α]<sub>D</sub><sup>22</sup> = +3.05° (c = 0.98, methanol), [α]<sub>D</sub><sup>20</sup> = +12.3 (c = 0.92, MeOH). **Pharm:** Antiarrhythmic (rat arrhythmia caused by BaCl<sub>2</sub>); antineoplastic (inhibits murine melanoma lung metastasis and prevents new vessel formation); inhibits fatigue; antiviral; inhibits replication of HSV-1; bidirectional action to blood pressure (murine, first increases and then lowers blood pressure, while heart rate slows); calcium antagonist; hemolytic; inhibits kidney damage in diabetic rat; platelet aggregation inhibitor; inhibits content of free radicals in myocardial cells (induced by xanthinoxidase); cAMP phosphodiesterase inhibitor (*in vitro*, IC<sub>50</sub> = 199 μmol/L); antihypercholesterolemic (reduces the level of cholesterol in serum); promotes biosynthesis of DNA, protein and lipid (murine marrow cells); promotes RNA polymerase activity (promotes synthesis of rRNA and mRNA in diabetic rat); vasodilator (dog); anti-inflammatory (modulator of cytokine network: inhibits TNF-α production in RAW264.7 and U937 cells stimulated with LPS, mean IC<sub>50</sub> = 27.5 μmol/L and 26.8 μmol/L, respectively)<sup>[4416]</sup>; antinociception (i.t. injected 0.7 μg substance P-induced pain model, EC = 50 μg *i.t.*)<sup>[5474]</sup>. **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (rhizome: content = 0.57%<sup>[5508]</sup>), SAN QI HUA LEI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (flower bud: yield = 0.29%<sup>[4702]</sup>), SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (rhizome: content = 0.17%<sup>[5508]</sup>), XI YANG SHEN *Panax quinquefolium* (rhizome: content = 0.10%<sup>[5508]</sup>). Ref: 4, 87, 451, 900, 4416, 4702, 5474, 5508.



#### 8425 Ginsenoside Rb<sub>3</sub>

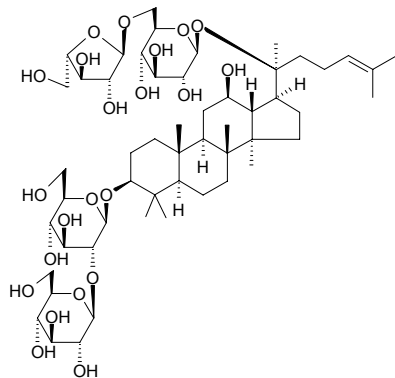
[68406-26-8] C<sub>53</sub>H<sub>90</sub>O<sub>23</sub> (1095.29). White powder, mp 193–195°C, [α]<sub>D</sub><sup>20</sup> = +19.4° (c = 1, MeOH). **Pharm:** Neurite outgrowth enhancer (hmn neuroblastoma SK-N-SH cells, 100 μmol/L, total length of neurites = 131.4 μm, number of varicosity per cell = 0.80, *p* < 0.05; control, total length of neurites = 45.3 μm, number of varicosity per cell = 0.10)<sup>[4647]</sup>; hepatoprotective (inhibits activation of macrophages, inhibits increase in sALT and sAST levels, *in vivo*, D-GalN/LPS-induced liver injury in mouse, 50 mg/kg ip for sALT, InRt = 77%, 100 mg/kg ip for sALT, InRt = 91%; 50 mg/kg ip for sAST, InRt = 72%; 100 mg/kg ip for sAST, InRt = 80%; control Hydrocortisone, 20 mg/kg ip for sALT, InRt = 99%; 20 mg/kg ip for sAST, InRt = 97%)<sup>[4702]</sup>. **Source:** JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.007%<sup>[4757]</sup>), REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN QI HUA LEI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (flower bud: yield = 3.15%<sup>[4702]</sup>), XI YANG SHEN *Panax quinquefolium*, YU YE SAN QI *Panax japonicus* var. *bipinnatifidus*, ZHU JIE SAN QI *Panax pseudo-ginseng* var. *japonicus* (underground part: yield = 0.025%<sup>[4647]</sup>). Ref: 135, 451, 4647, 4702, 4757.



#### 8426 Ginsenoside Rc

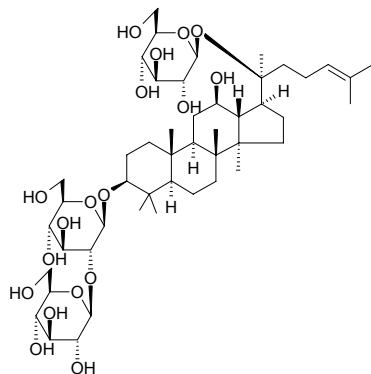
[11021-14-0] C<sub>53</sub>H<sub>90</sub>O<sub>22</sub> (1079.30). White powder (ethanol:butyl alcohol = 1:5), mp 199–201°C, [α]<sub>D</sub><sup>20</sup> = +1.83° (c = 0.65, methanol). **Pharm:** Antiarrhythmic (rat arrhythmia caused by BaCl<sub>2</sub>); inhibits fatigue; bidirectional action to blood pressure (murine, first increases and then lowers blood pressure, while heart rate slows); calcium antagonist; antioxidant of rat hepatic homogenate (caused by H<sub>2</sub>O<sub>2</sub>, IC<sub>50</sub> = (265.5 ± 48.1) μg/mL, by FeSO<sub>4</sub>, IC<sub>50</sub> = (129.3 ± 5.6) μg/mL, by H<sub>2</sub>O<sub>2</sub> + FeSO<sub>4</sub>, IC<sub>50</sub> = (536.8 ± 142.3) μg/mL); cAMP phosphodiesterase inhibitor (*in vitro*, IC<sub>50</sub> = 264 μmol/L); promotes biosynthesis of DNA, protein and lipid (murine marrow cells); promotes plasma secretion of corticosterone (ED<sub>50</sub> = 44 μmol/kg); antihepatotoxin (GalN-caused liver damage); reduces uterine contraction (gpg, *in vitro*, caused by acetylcholine); vasodilator (dog); hepatoprotective (inhibits activation of macrophages, inhibits increase in sALT and sAST levels, *in vivo*, D-GalN/LPS-induced liver injury in mouse, 50 mg/kg ip for sALT, InRt = 77%, 100 mg/kg ip for sALT, InRt = 89%; 50 mg/kg ip for sAST, InRt = 80%; 100 mg/kg ip for sAST, InRt = 87%; control Hydrocortisone, 20 mg/kg ip for sALT, InRt = 99%; 20 mg/kg ip for sAST, InRt = 97%)<sup>[4702]</sup>. **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (rhizome: content = 0.47%<sup>[5508]</sup>), SAN QI HUA LEI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (flower bud: yield = 1.79%<sup>[4702]</sup>), SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], XI YANG SHEN *Panax quinquefolium* (rhizome: content = 0.13%<sup>[5508]</sup>), ZHU JIE SAN QI

*Panax pseudo-ginseng* var. *japonicus* (rhizome: content = 0.23%<sup>[5508]</sup>, yield = 0.0011%<sup>[4647]</sup>). Ref: 4, 900, 4647, 4702, 5508.



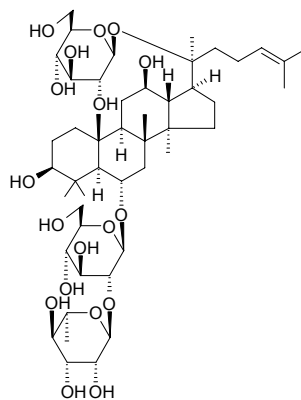
#### 8427 Ginsenoside Rd

Gypenoside VIII [52705-93-8] C<sub>48</sub>H<sub>82</sub>O<sub>18</sub> (947.18). White powder (ethanol:butyl alcohol = 1:1), mp 206–209°C, [α]<sub>D</sub><sup>22</sup> = +19.38° (c = 1.03, methanol). **Pharm:** Antiarrhythmic (rat arrhythmia caused by BaCl<sub>2</sub>); antiviral; inhibits replication of HSV-1; antioxidant (rat hepatic homogenate, caused by H<sub>2</sub>O<sub>2</sub>, IC<sub>50</sub> = (12.0±0.8)μg/mL, by FeSO<sub>4</sub>, IC<sub>50</sub> = (457.5±15.4)μg/mL); 11-β-Hydroxysteroid dehydrogenase inhibitor; cAMP phosphodiesterase inhibitor (*in vitro*, IC<sub>50</sub> = 84μmol/L); promotes cytotoxic effects of daunomycin and vincalurecoblantine; promotes plasma secretion of corticosterone (ED<sub>50</sub> = 112μmol/kg); regulates kidney function and inhibits reproduction of glomerulus cells; vasodilator; antinociception (i.t. injected 0.7μg substance P-induced pain model, EC = 50μg i.t.)<sup>[5474]</sup>; hepatoprotective (inhibits activation of macrophages, inhibits increase in sALT and sAST levels, *in vivo*, D-GalN/LPS-induced liver injury in mouse, 100mg/kg ip for sALT, InRt = 97%; 100mg/kg ip for sAST, InRt = 93%; control Hydrocortisone, 20mg/kg ip for sALT, InRt = 99%; 20mg/kg ip for sAST, InRt = 97%)<sup>[4702]</sup>. **Source:** JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.009%<sup>[4757]</sup>), QIN LING ZHU ZI SHEN *Panax japonicus* var. *major*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (rhizome: content = 0.16%<sup>[5508]</sup>), SAN QI HUA LEI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (flower bud: yield = 0.010%<sup>[4702]</sup>), SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (rhizome: content = 1.3%<sup>[5508]</sup>), XI YANG SHEN *Panax quinquefolium* (rhizome: content = 0.78%<sup>[5508]</sup>), ZHU JIE SAN QI *Panax pseudo-ginseng* var. *japonicus* (underground part: yield = 0.0018%<sup>[4647]</sup>). Ref: 4, 87, 451, 900, 4647, 4702, 4757, 5474, 5508.



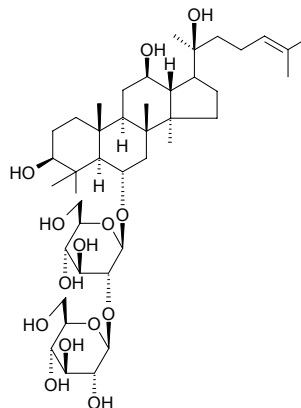
#### 8428 Ginsenoside Re

Chikusetsusaponin IVc; Ginsenoside B<sub>2</sub> [52286-59-6] C<sub>48</sub>H<sub>82</sub>O<sub>18</sub> (947.18). Colorless acicular Crystals, mp 201–203°C, [α]<sub>D</sub><sup>20</sup> = -1.5° (c = 0.52, MeOH). **Pharm:** Analgesic (mus, 10mg/kg); inhibits fatigue; bidirectional action to blood pressure (murine, first increases and then lowers blood pressure, while heart rate slows); reduces uterine contraction (gpg *in vitro*, caused by acetylcholine); hepatoprotective (inhibits activation of macrophages, inhibits increase in sALT and sAST levels, *in vivo*, D-GalN/LPS-induced liver injury in mouse, 100mg/kg ip for sALT, InRt = 92%; 100mg/kg ip for sAST, InRt = 90%; control Hydrocortisone, 20mg/kg ip for sALT, InRt = 99%; 20mg/kg ip for sAST, InRt = 97%)<sup>[4702]</sup>. **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (rhizome: content = 0.30%<sup>[5501]</sup>, content = 0.57%<sup>[5508]</sup>), SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (rhizome: content = 0.50%<sup>[5508]</sup>), XI YANG SHEN *Panax quinquefolium* (rhizome: content = 2.0%<sup>[5508]</sup>), ZHU JIE SAN QI *Panax pseudo-ginseng* var. *japonicus* (rhizome: content = 0.04%<sup>[5508]</sup>, yield = 0.011%<sup>[4610]</sup>). Ref: 4, 87, 451, 613, 658, 1521, 4610, 4702, 5501, 5508.



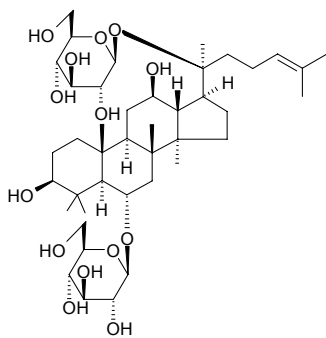
#### 8429 Ginsenoside Rf

[52286-58-5] C<sub>42</sub>H<sub>72</sub>O<sub>14</sub> (801.03). White powder, mp 197–198°C. **Pharm:** Antineoplastic; inhibits fatigue; bidirectional action to blood pressure (murine, first increases and then lowers blood pressure, while heart rate slows); reduces uterine contraction (gpg, *in vitro*, caused by acetylcholine); antinociception (i.t. injected 0.7μg substance P-induced pain model, EC = 50μg i.t.)<sup>[5474]</sup>. **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (rhizome: content = 0.15%<sup>[5508]</sup>), XI YANG SHEN *Panax quinquefolium*. Ref: 4, 87, 658, 5474, 5508.

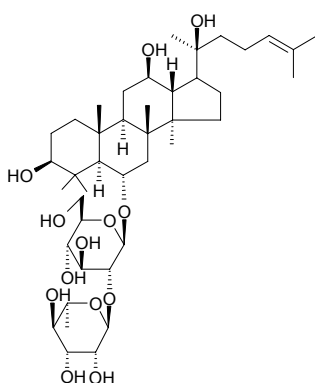


**8430 Ginsenoside Rg<sub>1</sub>**

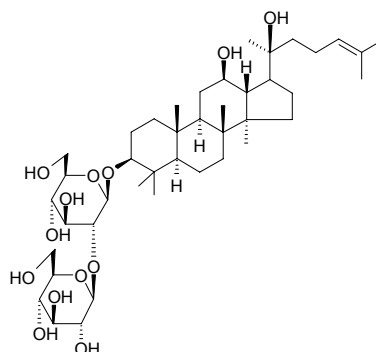
Ginsenoside A<sub>2</sub> [22427-39-0] C<sub>42</sub>H<sub>72</sub>O<sub>14</sub> (801.03). mp 194.0~196.5°C. **Pharm:** Antineoplastic; treatment of cancer of stomach; inhibits fatigue; bidirectional action to blood pressure (murine, first increases and then lowers blood pressure, while heart rate slows); promotes biosynthesis of DNA, protein and lipid (murine marrow cells); reduces uterine contraction (gpg, *in vitro*, caused by acetylcholine); vasodilator (animal model); hepatoprotective (inhibits activation of macrophages, inhibits increase in sALT and sAST levels, *in vivo*, D-GalN/LPS-induced liver injury in mouse, 100mg/kg ip for sALT, InRt = 30%; 100mg/kg ip for sAST, InRt = 12%; control Hydrocortisone, 20mg/kg ip for sALT, InRt = 99%; 20mg/kg ip for sAST, InRt = 97%)<sup>[4702]</sup>; LD<sub>50</sub> (mus, orl) ≥ 5000mg/kg, (mus, ip) = 1600mg/kg, (mus, iv) = 396mg/kg. **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (rhizome: content = 0.46%<sup>[5501]</sup>, content = 0.38%<sup>[5508]</sup>), SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (rhizome: content = 4.7%<sup>[5508]</sup>), XI YANG SHEN *Panax quinquefolium* (rhizome: content = 0.20%<sup>[5508]</sup>), ZHU JIE SAN QI *Panax pseudo-ginseng* var. *japonicus* (rhizome: content = 0.09%<sup>[5508]</sup>, yield = 0.011%dw<sup>[4610]</sup>). **Ref:** 4, 87, 658, 4139, 4610, 4702, 5501, 5508.

**8431 Ginsenoside Rg<sub>2</sub>**

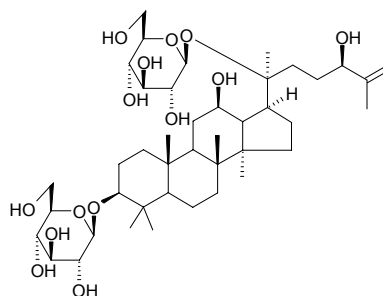
Ginsenoside C C<sub>42</sub>H<sub>72</sub>O<sub>13</sub> (785.03). Crystals, mp 187~189°C, [α]<sub>D</sub><sup>30</sup> = +5.5° (c = 1, MeOH). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], XI YANG SHEN *Panax quinquefolium*. **Ref:** 1521.

**8432 20(S)-Ginsenoside Rg<sub>3</sub>**

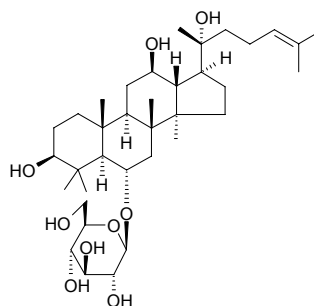
[14197-60-5] C<sub>42</sub>H<sub>72</sub>O<sub>13</sub> (785.03). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 2.

**8433 Ginsenoside Rg<sub>7</sub>**

3-O-β-D-Glucopyranosyl 3β,12β,20(S),24(R)-tetrahydroxy-dammar-25-ene 20-O-β-D-glucopyranoside C<sub>42</sub>H<sub>72</sub>O<sub>14</sub> (801.03). White powder. **Source:** REN SHEN YE *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 3517.

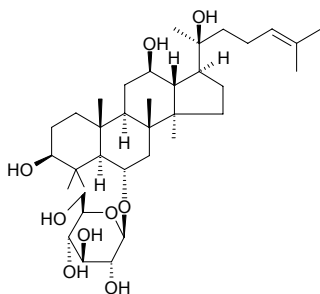
**8434 20(R)-Ginsenoside Rh<sub>1</sub>**

C<sub>36</sub>H<sub>62</sub>O<sub>9</sub> (638.89). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 2.

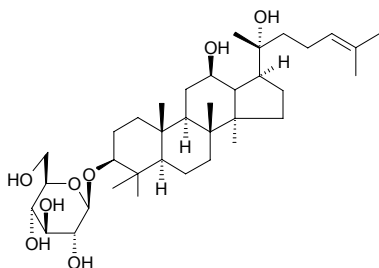


**8435 20(S)-Ginsenoside Rh<sub>1</sub>**

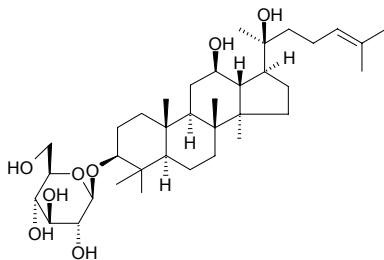
Ginsenoside Rh<sub>1</sub> [63223-86-9] C<sub>36</sub>H<sub>62</sub>O<sub>9</sub> (638.89). **Pharm:** Hepatoprotective (inhibits activation of macrophages, inhibits increase in sALT and sAST levels, *in vivo*, D-GalN/LPS-induced liver injury in mouse, 100mg/kg ip for sALT, InRt = 93%; 100mg/kg ip for sAST, InRt = 90%; control Hydrocortisone, 20mg/kg ip for sALT, InRt = 99%; 20mg/kg ip for sAST, InRt = 97%)<sup>[4702]</sup>. **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], XI YANG SHEN *Panax quinquefolium*. **Ref:** 2, 28, 87, 4702.

**8436 20(R)-Ginsenoside-Rh<sub>2</sub>**

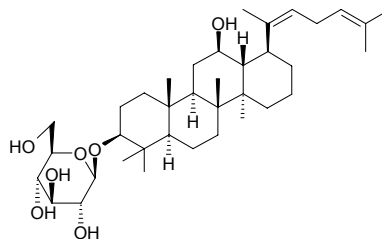
[112246-15-8] C<sub>36</sub>H<sub>62</sub>O<sub>8</sub> (622.89). **Pharm:** Antineoplastic (hmn, leukemia HL-60, 2μg/mL; mus myelocytic leukemia M1, inducing cell differentiation activity, 50μmol/L, growth rate = 70%); cytotoxic (*in vitro*, enhances cytotoxicity for drug-resistant strain P<sub>388</sub>, IC<sub>50</sub> = 75.6μmol/L, MT-4, CC<sub>50</sub> (concentration of half cytotoxicity) = 475μmol/L). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 2, 1615, 1616, 1617, 1618.

**8437 20(S)-Ginsenoside Rh<sub>2</sub>**

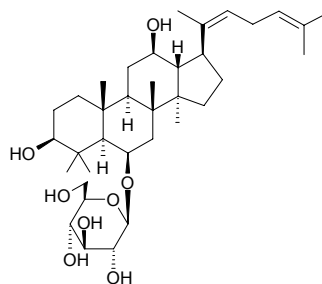
[78214-33-2] C<sub>36</sub>H<sub>62</sub>O<sub>8</sub> (622.89). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 2.

**8438 Ginsenoside Rh<sub>3</sub>**

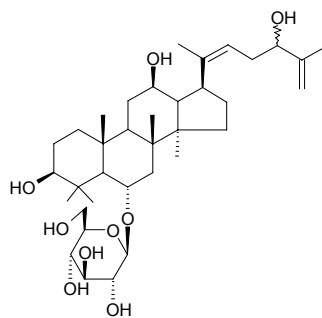
3β,12β-Dihydroxy-dammar-20(22),24-diene-3-O-β-D-glucopyranoside [105558-26-7] C<sub>37</sub>H<sub>62</sub>O<sub>7</sub> (618.90). White powder, mp 255~257°C, [α]<sub>D</sub><sup>27</sup> = +7° (c = 0.778, methanol). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 84.

**8439 Ginsenoside Rh<sub>4</sub>**

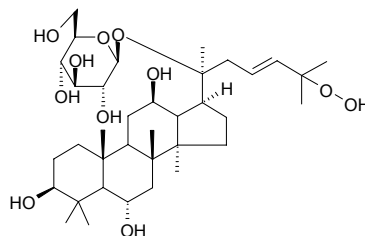
[174721-08-5] C<sub>36</sub>H<sub>60</sub>O<sub>8</sub> (620.87). Colorless thin crystals (methanol-water), mp 160~161°C, [α]<sub>D</sub> = +28.2° (c = 1, methanol). **Pharm:** Cytotoxic (P<sub>388</sub>, ED<sub>50</sub> = 25μmol/L, L<sub>1210</sub>, ED<sub>50</sub> = 23μmol/L). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 1149.

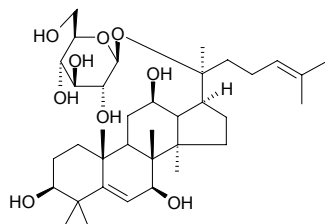
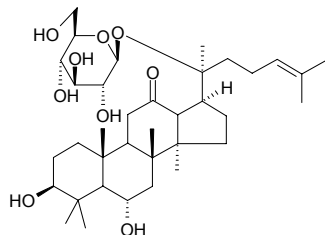
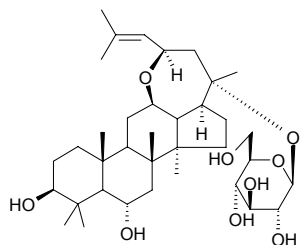
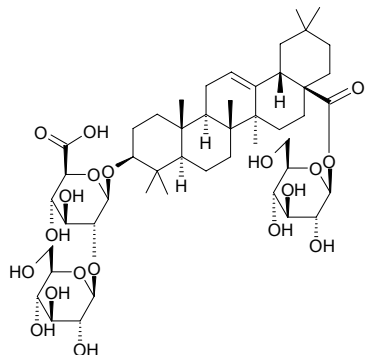
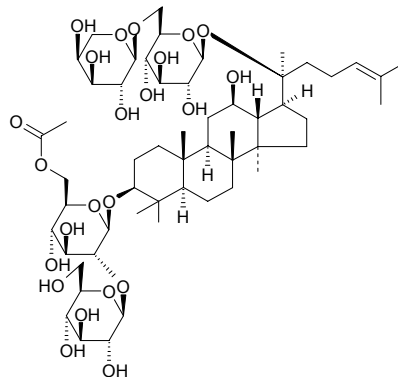
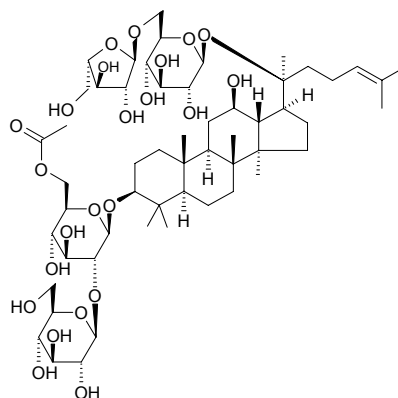
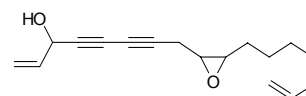
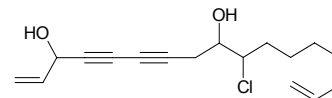
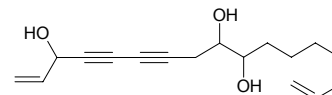
**8440 Ginsenoside Rh<sub>5</sub>**

3β,6α,12β,24ξ-Tetrahydroxy-dammar-20(22),25-diene 6-O-β-D-glucopyranoside C<sub>36</sub>H<sub>60</sub>O<sub>9</sub> (636.87). White powder, [α]<sub>D</sub><sup>21</sup> = +20.8° (c = 0.1, MeOH). **Source:** REN SHEN YE *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 3517.

**8441 Ginsenoside Rh<sub>6</sub>**

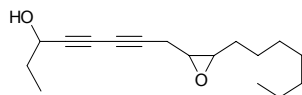
3β,6α,12β,20(S)-Tetrahydroxy-25-hydroperoxy-dammar-23-ene 20-O-β-D-glucopyranoside C<sub>36</sub>H<sub>62</sub>O<sub>11</sub> (670.89). White powder, [α]<sub>D</sub><sup>21</sup> = +21.8° (c = 0.1, MeOH). **Source:** REN SHEN YE *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 3517.



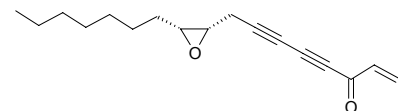
**8442 Ginsenoside Rh<sub>7</sub>**3 $\beta$ ,7 $\beta$ ,12 $\beta$ ,20(S)-Tetrahydroxy-dammar-5,24-diene20-O- $\beta$ -D-glucopyranoside C<sub>36</sub>H<sub>60</sub>O<sub>9</sub> (636.87). White powder,  $[\alpha]_D^{21} = +30.1^\circ$  ( $c = 0.1$ , MeOH). [Source](#): REN SHEN YE *Panax ginseng* [Syn. *Panax schinseng*]. [Ref](#): 3517.**8443 Ginsenoside Rh<sub>8</sub>**3 $\beta$ ,6 $\alpha$ ,20(S)-Trihydroxy-dammar-24-ene-12-one 20-O- $\beta$ -D-glucopyranosideC<sub>36</sub>H<sub>60</sub>O<sub>9</sub> (636.87). White powder. [Source](#): REN SHEN YE *Panax ginseng* [Syn. *Panax schinseng*]. [Ref](#): 3517.**8444 Ginsenoside Rh<sub>9</sub>**3 $\beta$ ,6 $\alpha$ ,20(S)-Trihydroxy-12 $\beta$ ,23-epoxy-dammar-24-ene20-O- $\beta$ -D-glucopyranoside C<sub>36</sub>H<sub>60</sub>O<sub>9</sub> (636.87). White powder. [Source](#): REN SHEN YE *Panax ginseng* [Syn. *Panax schinseng*]. [Ref](#): 3517.**8445 Ginsenoside Ro**[34367-04-9] C<sub>48</sub>H<sub>76</sub>O<sub>19</sub> (957.13). [Source](#): REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (rhizome: content = 1.8%<sup>[5508]</sup>), XI YANG SHEN *Panax quinquefolium* (rhizome: content = 0.65%<sup>[5508]</sup>), ZHU JIE SAN QI *Panax pseudo-ginseng* var. *japonicus* (rhizome: content = 2.7%<sup>[5508]</sup>). [Ref](#): 2, 5508.**8446 Ginsenoside Rs<sub>1</sub>**[87733-67-3A] C<sub>55</sub>H<sub>92</sub>O<sub>23</sub> (1121.33). [Source](#): REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. [Ref](#): 2.**8447 Ginsenoside Rs<sub>2</sub>**[87733-66-2] C<sub>55</sub>H<sub>92</sub>O<sub>23</sub> (1121.33). [Source](#): REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. [Ref](#): 2, 1521.**8448 Ginsenoyne A**[139163-34-1] C<sub>17</sub>H<sub>22</sub>O<sub>2</sub> (258.36). [Source](#): REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. [Ref](#): 2.**8449 Ginsenoyne B**[139035-29-3] C<sub>17</sub>H<sub>23</sub>ClO<sub>2</sub> (294.82). [Source](#): REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. [Ref](#): 2.**8450 Ginsenoyne C**[139163-35-2] C<sub>17</sub>H<sub>24</sub>O<sub>3</sub> (276.38). [Source](#): REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. [Ref](#): 2.

**8451 Ginsenoyne D**

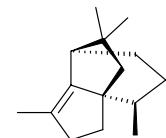
$C_{17}H_{26}O_2$  (262.40). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 2.

**8452 Ginsenoyne E**

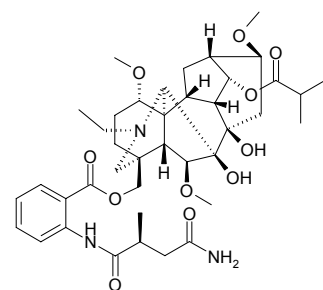
3-Oxopanaxydol; PQ-3 [126146-63-2]  $C_{17}H_{22}O_2$  (258.36). Oil,  $[\alpha]_D = -36.9^\circ C$  ( $c = 0.68$ , MeOH). Pharm: Cytotoxic ( $L_{1210}$ , 0.5-1.0  $\mu g/mL$ , InRt = 100%). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], XI YANG SHEN *Panax quinquefolium*. Ref: 2, 1017, 1521.

**8453 Ginsinsene**

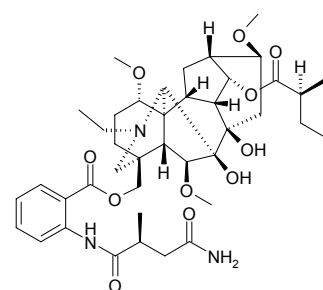
(1*R*\*,6*R*\*,7*R*\*)-3,7,10,10-Tetramethyltricyclo[4.3.2.0<sup>2,6</sup>]undec-2-ene  $C_{15}H_{24}$  (204.36). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 5330.

**8454 Giralidine G**

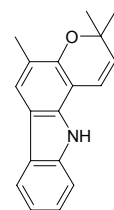
$C_{40}H_{57}N_3O_{11}$  (755.91). White amorphous powder, mp 108-110 °C,  $[\alpha]_D^{20} = +35.4^\circ$  ( $c = 0.42$ ,  $CHCl_3$ ). Source: QIN LING CUI QUE HUA *Delphinium giraldii* (root). Ref: 4278.

**8455 Giralidine H**

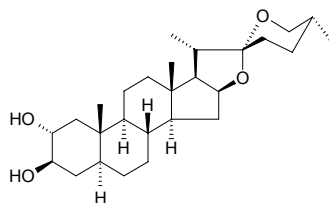
$C_{41}H_{59}N_3O_{11}$  (769.94). White amorphous powder, mp 122-124 °C,  $[\alpha]_D^{20} = +34.6^\circ$  ( $c = 0.35$ ,  $CHCl_3$ ). Source: QIN LING CUI QUE HUA *Delphinium giraldii* (root). Ref: 4278.

**8456 Girinimbine**

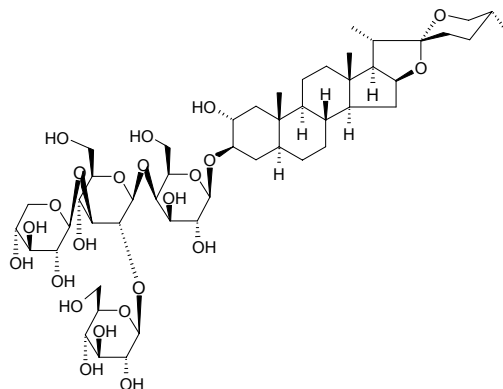
[23095-44-5]  $C_{18}H_{17}NO$  (263.34). Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 3.13  $\mu g/mL$ , MIC = 0.012  $\mu mol/L$ , control Kanamycin, MIC = 3.13  $\mu g/mL$ ; *Bacillus subtilis*, MIC = 25  $\mu g/mL$ , MIC = 0.095  $\mu mol/L$ , Kanamycin, MIC = 6.25  $\mu g/mL$ ; *Escherichia coli*, MIC = 50  $\mu g/mL$ , MIC = 0.190  $\mu mol/L$ , Kanamycin, MIC = 12.5  $\mu g/mL$ ; *Proteus vulgaris*, MIC = 12.5  $\mu g/mL$ , MIC = 0.047  $\mu mol/L$ , Kanamycin, MIC = 12.5  $\mu g/mL$ )<sup>[5299]</sup>; antifungal (*Aspergillus niger*, MIC = 25  $\mu g/mL$ , MIC = 0.095  $\mu mol/L$ ; *Candida albicans*, MIC = 100  $\mu g/mL$ , MIC = 0.302  $\mu mol/L$ , control Fluconazole, MIC = 25  $\mu g/mL$ , MIC = 0.082  $\mu mol/L$ )<sup>[5299]</sup>. Source: NEN YE JIU LI XIANG *Murraya microphylla*, YUAN DONG JIU LI XIANG *Murraya siamensis*, YIN DU JIU LI XIANG *Murraya koenigii* (stem cortex). Ref: 11, 5299.

**8457 Gitogenin**

[511-96-6]  $C_{27}H_{44}O_4$  (432.65). mp 271-272 °C. Source: DA YU BIAO HUA *Hosta sieboldiana*, FAN MA *Agave americana*, HU LU BA *Trigonella foenum-graecum*, JI LI GEN *Tribulus terrestris*. Ref: 6, 10.

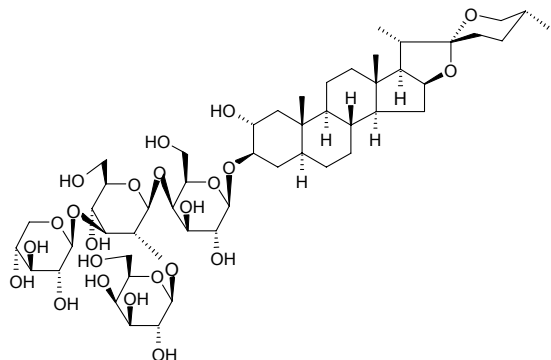
**8458 F-Gitoinin**

Gitogenin  $\beta$ -lycotetraoside [28591-01-7]  $C_{50}H_{82}O_{23}$  (1051.20). Micro needles from MeOH, mp 260-263 °C,  $[\alpha]_D^{24} = -51.6^\circ$  ( $c = 0.21$ , pyridine). Pharm: Antineoplastic (HeLa, inhibits <sup>32</sup>P combines with phospholipid in HeLa cells, 50  $\mu g/mL$ , InRt = 23.1%); antiviral (reduces titer of tobacco mosaic virus by 2-3 times). Source: CI JI LI *Tribulus terrestris*. Ref: 706, 1636, 1637, 1638.

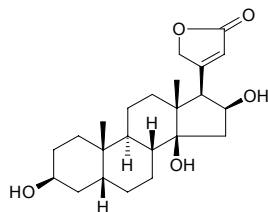


**8459 Gitonin**

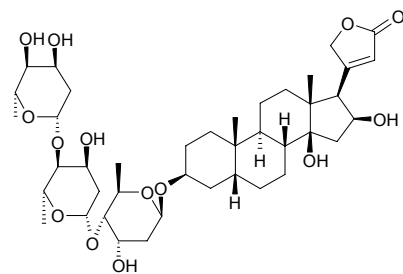
Capsicosin D<sub>1</sub> [39937-47-8] C<sub>50</sub>H<sub>82</sub>O<sub>23</sub> (1051.20). Acicular Crystals (MeOH), mp 250~253°C,  $[\alpha]_D^{19} = -40^\circ$  ( $c = 1$ , pyridine). Source: CI JI LI *Tribulus terrestris*. Ref: 706.

**8460 Gitoxigenin**

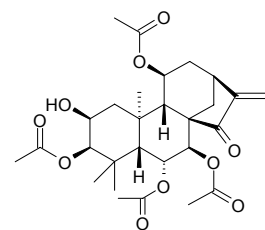
[545-26-6] C<sub>23</sub>H<sub>34</sub>O<sub>5</sub> (390.52). mp 220~225°C. Source: JIA ZHU TAO *Nerium indicum*. Ref: 6.

**8461 Gitoxin**

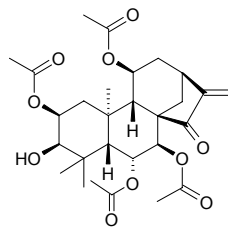
[4562-36-1] C<sub>41</sub>H<sub>64</sub>O<sub>14</sub> (780.96). Pharm: Cardiotonic; toxin (vertebrate). Source: MAO DI HUANG *Digitalis purpurea* (dried leaf: content = 0.0140%<sup>[5508]</sup>), MAO HUA MAO DI HUANG *Digitalis lanata*. Ref: 658, 5508.

**8462 Glabcensin A**

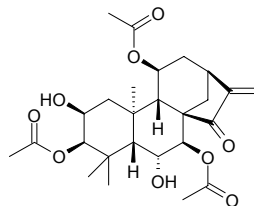
C<sub>28</sub>H<sub>38</sub>O<sub>10</sub> (534.61). Amorphous powder, mp 198~199°C,  $[\alpha]_D^{22} = -74.9^\circ$  ( $c = 0.57$ , MeOH). Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8463 Glabcensin B**

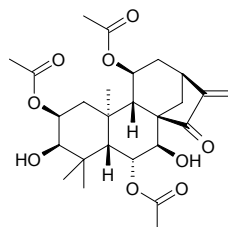
C<sub>28</sub>H<sub>38</sub>O<sub>10</sub> (534.61). Amorphous powder,  $[\alpha]_D^{22} = -54.7^\circ$  ( $c = 0.51$ , MeOH). Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8464 Glabcensin C**

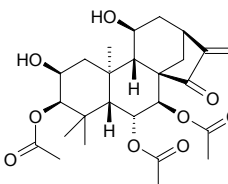
C<sub>26</sub>H<sub>36</sub>O<sub>9</sub> (492.57). Amorphous powder,  $[\alpha]_D^{22} = -28.5^\circ$  ( $c = 0.57$ , CHCl<sub>3</sub>). Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8465 Glabcensin D**

C<sub>26</sub>H<sub>36</sub>O<sub>9</sub> (492.57). Amorphous powder,  $[\alpha]_D^{22} = -37.9^\circ$  ( $c = 0.44$ , CHCl<sub>3</sub>). Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8466 Glabcensin E**

C<sub>26</sub>H<sub>36</sub>O<sub>9</sub> (492.57). Amorphous powder,  $[\alpha]_D^{22} = -46.9^\circ$  ( $c = 0.46$ , MeOH). Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

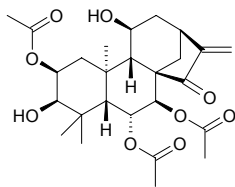




**8467 Glabcensin F**

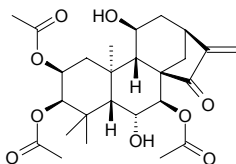
$C_{26}H_{36}O_9$  (492.57). Amorphous powder,  $[\alpha]_D^{22} = -39.2^\circ$  ( $c = 0.49$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8468 Glabcensin G**

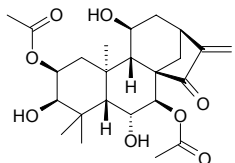
$C_{26}H_{36}O_9$  (492.57). Amorphous powder,  $[\alpha]_D^{22} = -11.1^\circ$  ( $c = 0.45$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8469 Glabcensin H**

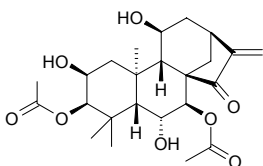
$C_{24}H_{34}O_8$  (450.53). Amorphous powder,  $[\alpha]_D^{22} = -16.1^\circ$  ( $c = 0.53$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8470 Glabcensin I**

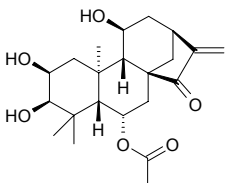
$C_{24}H_{34}O_8$  (450.53). Amorphous powder,  $[\alpha]_D^{22} = -39.6^\circ$  ( $c = 0.52$ ,  $MeOH$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8471 Glabcensin J**

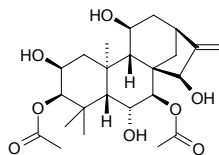
$C_{22}H_{32}O_6$  (392.50). Amorphous powder,  $[\alpha]_D^{22} = -32.4^\circ$  ( $c = 0.48$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8472 Glabcensin K**

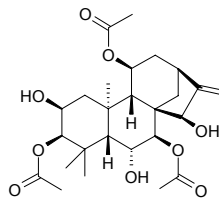
$C_{24}H_{36}O_8$  (452.55). Amorphous powder,  $[\alpha]_D^{22} = -34.5^\circ$  ( $c = 0.52$ ,  $MeOH$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8473 Glabcensin L**

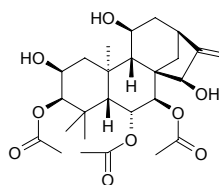
$C_{26}H_{38}O_9$  (494.59). Amorphous powder,  $[\alpha]_D^{22} = -33.5^\circ$  ( $c = 0.48$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8474 Glabcensin M**

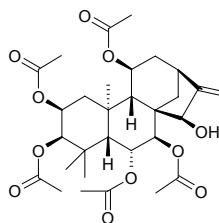
$C_{26}H_{38}O_9$  (494.59). Amorphous powder,  $[\alpha]_D^{22} = -45.4^\circ$  ( $c = 0.54$ ,  $MeOH$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8475 Glabcensin N**

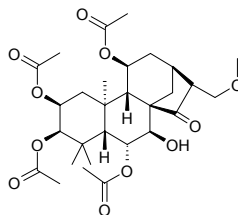
$C_{30}H_{42}O_{11}$  (578.66). Amorphous powder,  $[\alpha]_D^{22} = -22.18^\circ$  ( $c = 0.50$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8476 Glabcensin O**

$C_{29}H_{42}O_{11}$  (566.65). Amorphous powder,  $[\alpha]_D^{22} = -26.5^\circ$  ( $c = 0.49$ ,  $CHCl_3$ ).

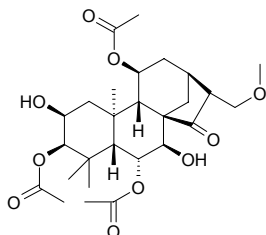
Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.



**8477 Glabcesin P**

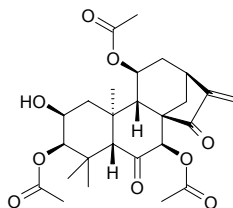
$C_{27}H_{40}O_{10}$  (524.61). Amorphous powder,  $[\alpha]_D^{22} = -31.8^\circ$  ( $c = 0.42$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8478 Glabcesin Q**

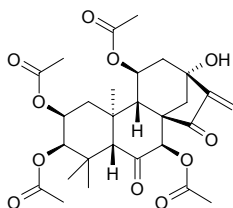
$C_{26}H_{34}O_9$  (490.56). Amorphous powder,  $[\alpha]_D^{22} = -32.8^\circ$  ( $c = 0.46$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8479 Glabcesin R**

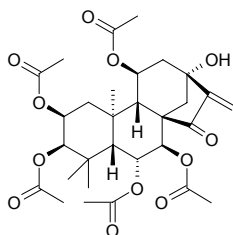
$C_{28}H_{36}O_{11}$  (548.59). Amorphous powder,  $[\alpha]_D^{22} = -28.2^\circ$  ( $c = 0.48$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8480 Glabcesin S**

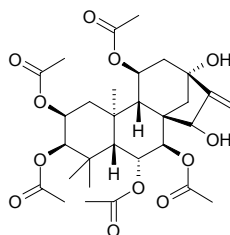
$C_{30}H_{40}O_{12}$  (592.65). Amorphous powder,  $[\alpha]_D^{22} = -36.5^\circ$  ( $c = 0.45$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8481 Glabcesin T**

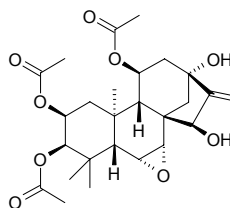
$C_{30}H_{42}O_{12}$  (594.66). Amorphous powder,  $[\alpha]_D^{22} = -37.5^\circ$  ( $c = 0.52$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8482 Glabcesin U**

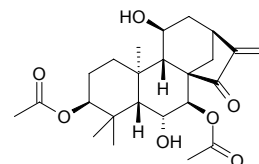
$C_{26}H_{36}O_9$  (492.57). Amorphous powder,  $[\alpha]_D^{22} = -21.5^\circ$  ( $c = 0.45$ ,  $CHCl_3$ ).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**8483 Glabcesin V**

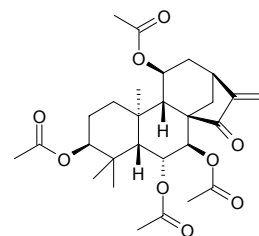
Gesneroidin F  $C_{24}H_{34}O_7$  (434.53). Amorphous powder,  $[\alpha]_D^{22} = -7.32^\circ$  ( $c = 0.48$ ,  $CHCl_3$ );  $[\alpha]_D^{25.6} = -22.0^\circ$  ( $c = 0.25.0$ , MeOH). Pharm: Cytotoxic (hmn tumor K562 cells,  $IC_{50} = 0.4 \mu g/mL$ , control *cis*-Platin  $IC_{50} = 1.1 \mu g/mL$ )<sup>[4955]</sup>.

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*, DONG LING CAO *Rabdosia rubescens* (leaf). Ref: 1869, 4067, 4955.

**8484 Glabcesin W**

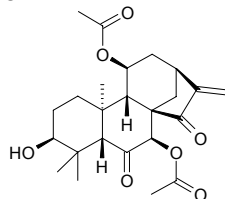
$C_{28}H_{38}O_9$  (518.61). Amorphous powder,  $[\alpha]_D^{22} = -59.98^\circ$  ( $c = 0.42$ , MeOH).

Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 1869, 4067.

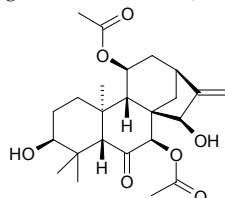


**8485 Glabcensin X**

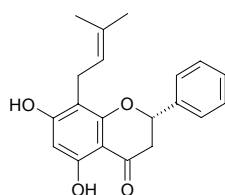
$C_{24}H_{32}O_7$  (432.52). Amorphous powder,  $[\alpha]_D^{22} = -24.5^\circ$  ( $c = 0.54$ ,  $CHCl_3$ ).  
**Source:** MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. **Ref:** 1869, 4067.

**8486 Glabcensin Y**

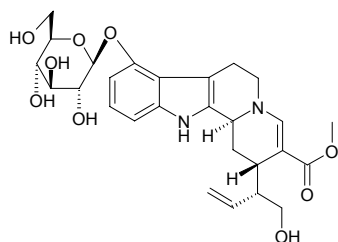
$C_{24}H_{34}O_7$  (434.53). Amorphous powder,  $[\alpha]_D^{22} = -13.0^\circ$  ( $c = 0.54$ ,  $CHCl_3$ ).  
**Source:** MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. **Ref:** 1869, 4067.

**8487 Glabranin**

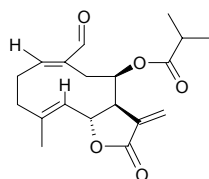
[41983-91-9]  $C_{20}H_{20}O_4$  (324.38). **Pharm:** Antimicrobial (broad spectrum); promotes estrogenic activity. **Source:** MEI ZHOU GAN CAO *Glycyrrhiza lepidota*, GUANG GUO GAN CAO *Glycyrrhiza glabra*, GUANG GUO GAN CAO *Glycyrrhiza glabra* (leaf)<sup>[4685]</sup>. **Ref:** 2, 658, 660, 4685.

**8488 Glabratine**

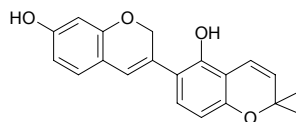
$C_{27}H_{34}N_2O_9$  (530.58). **Source:** CHANG HUA GOU TENG *Uncaria longiflora*, MIAN MAO GOU TENG *Uncaria lanosa*. **Ref:** 5341.

**8489 Glabratolide**

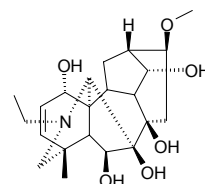
[75744-65-9]  $C_{19}H_{24}O_5$  (332.40). Amorphous gum. **Pharm:** Cytotoxic (KB *in vitro*,  $ED_{50} = 2.3\mu\text{g/mL}$ ). **Source:** GUANG CI BAO JU *Acanthospermum glabratum*. **Ref:** 658, 661, 1521.

**8490 Glabrene**

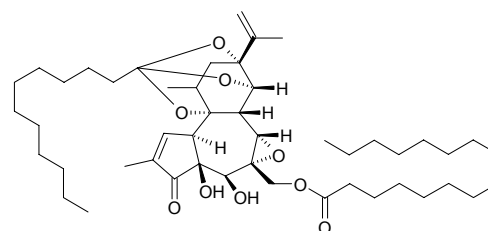
[60008-03-9]  $C_{20}H_{18}O_4$  (322.36). **Pharm:** Antibacterial (*Staphylococcus aureus* ATCC13709 and *Mycobacterium smegmatis* ATCC607, MIC =  $25\mu\text{g/mL}$ ). **Source:** GUANG GUO GAN CAO *Glycyrrhiza glabra*. **Ref:** 2, 658, 660.

**8491 Glabrephinine**

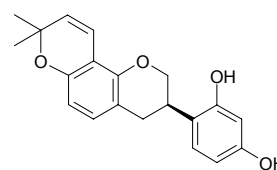
[132160-37-3]  $C_{22}H_{33}NO_6$  (407.51). White acicular Crystals, mp 201–203°C. **Source:** ZHAN MAO CUI QUE HUA *Delphinium kamaonense* var. *glabrescens*. **Ref:** 157.

**8492 Glabrescin**

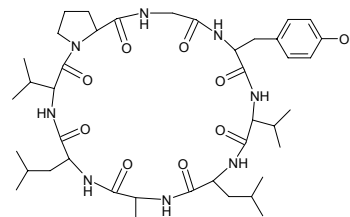
$C_{48}H_{78}O_9$  (799.15). Orange oil,  $[\alpha]_D^{24} = +82^\circ$  ( $c = 0.35$ ,  $CHCl_3$ ). **Source:** *Neoboutonia glabrescens*. **Ref:** 3441.

**8493 Glabridin**

$C_{20}H_{20}O_4$  (324.38). **Pharm:** Antibacterial (*Staphylococcus aureus* ATCC13709, MIC =  $6.25\mu\text{g/mL}$ ; *Mycobacterium smegmatis*); antifungal (*Candida albicans* ATCC1023, MIC =  $25\mu\text{g/mL}$ ). **Source:** GUANG GUO GAN CAO *Glycyrrhiza glabra*. **Ref:** 2, 658, 660.

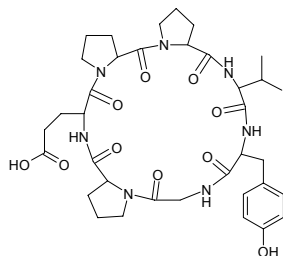
**8494 Glabrin C**

Cyclo-(prolyl-glycyl-tyrosyl-valyl-leucyl-alanyl-leucyl-valyl)  $C_{41}H_{64}N_8O_9$  (813.02). Amorphous powder, mp 153°,  $[\alpha]_D^{29} = -35.11^\circ$  ( $c = 0.235$ , MeOH). **Source:** YUAN HUA FAN LI ZHI *Annona glabra*. **Ref:** 1858.

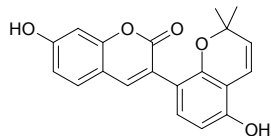


**8495 Glabrin D**

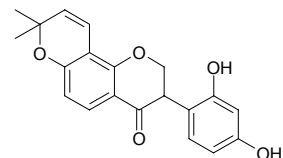
Cyclo-(prolyl-prolyl-valyl-tyrosyl-glycyl-prolyl-glutamyl) C<sub>36</sub>H<sub>49</sub>N<sub>7</sub>O<sub>10</sub> (739.83). Amorphous powder, mp 219°, [ $\alpha$ ]<sub>D</sub><sup>29</sup> = -53.54° (c = 0.551 MeOH).  
 Source: YUAN HUA FAN LI ZHI *Annona glabra*. Ref: 1858.

**8496 Glabrocoumarin**

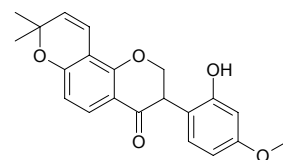
C<sub>20</sub>H<sub>16</sub>O<sub>5</sub> (336.35). Slightly yellow needles (benzene-acetone), mp 254–256°C. Source: GUANG GUO GAN CAO *Glycyrrhiza glabra* (root).  
 Ref: 4486.

**8497 Glabroisoflavanone A**

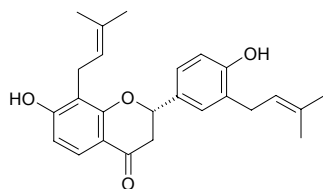
C<sub>20</sub>H<sub>18</sub>O<sub>5</sub> (338.36). Colorless prisms (MeOH-H<sub>2</sub>O), mp 113–116°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = 0° (c = 0.073, MeOH). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra* (root). Ref: 4486.

**8498 Glabroisoflavanone B**

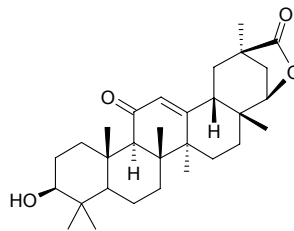
C<sub>21</sub>H<sub>20</sub>O<sub>5</sub> (352.39). Colorless prisms (MeOH-H<sub>2</sub>O), mp 161–162°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = 0° (c = 0.036, MeOH). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra* (root). Ref: 4486.

**8499 Glabrol**

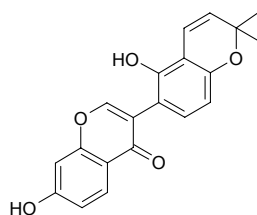
[59870-65-4] C<sub>25</sub>H<sub>28</sub>O<sub>4</sub> (392.50). Pharm: Antibacterial (*Staphylococcus aureus* ATCC13709, MIC = 1.56µg/mL; *Mycobacterium smegmatis* ATCC607, MIC = 1.56µg/mL). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra*, HUANG GAN CAO *Glycyrrhiza kansuensis*. Ref: 2, 591, 658, 660.

**8500 Glabrolide**

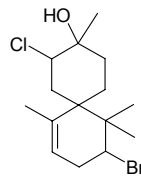
[10401-33-9] C<sub>30</sub>H<sub>44</sub>O<sub>4</sub> (468.68). Source: CU MAO GAN CAO *Glycyrrhiza aspera*, GAN CAO *Glycyrrhiza uralensis*, GUANG GUO GAN CAO *Glycyrrhiza glabra*. Ref: 1521.

**8501 Glabrone**

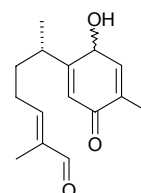
Eurycarpin B; 7,2'-Dihydroxy-6'',6''-dimethylpyrano-(2'',3''-4',3')isoflavone [60008-02-8] C<sub>20</sub>H<sub>16</sub>O<sub>5</sub> (336.35). Yellowish acicular Crystals, mp 227–229°C. Pharm: Antioxidant (*in vitro*, 8µg/mL, oxygen clearance = 28.6%, 10µg/mL, hemolytic InRt induced by H<sub>2</sub>O<sub>2</sub> = 94.2%). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra*, HUANG GAN CAO *Glycyrrhiza kansuensis*, ZHANG GUO GAN CAO *Glycyrrhiza inflata*. Ref: 2, 379, 660, 1753.

**8502 Glanduliforol**

C<sub>15</sub>H<sub>24</sub>BrClO (335.71). Source: XIAO XIAN AO DING ZAO *Laurencia glandulifera* (in 1974, the compound was isolated from the plant by M.Suzuki et al.). Ref: 5505.

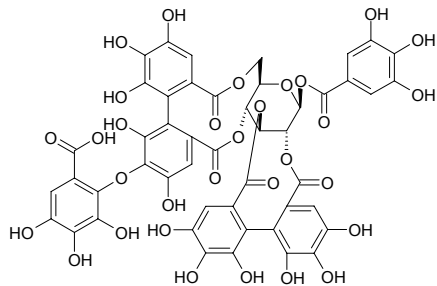
**8503 Glandulone C**

C<sub>15</sub>H<sub>20</sub>O<sub>3</sub> (248.32). Brown oil, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +23.6° (c = 0.12, methanol). Source: XIANG RI KUI YE *Helianthus annuus*. Ref: 1521, 1556.

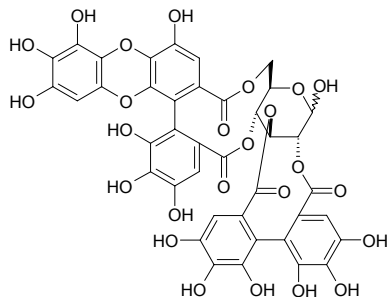


**8504 Glansrin A**

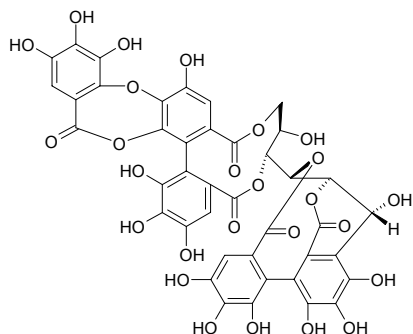
$C_{48}H_{32}O_{31}$  (1104.77). Off-white amorphous powder,  $[\alpha]_D^{23} = -11^\circ$  ( $c = 0.3$ , MeOH). **Pharm:** Antioxidant (SOD-like activity,  $EC_{50} = 190\mu\text{mol/L}$ , control Gallic acid,  $EC_{50} = 31.7\mu\text{mol/L}$ , *L*-Ascorbic acid,  $EC_{50} = 34.6\mu\text{mol/L}$ ); antioxidant (DPPH free radical scavenger,  $EC_{50} = 0.36\mu\text{mol/L}$ , control Gallic acid,  $EC_{50} = 5.88\mu\text{mol/L}$ , *L*-Ascorbic acid,  $EC_{50} = 6.25\mu\text{mol/L}$ ). **Source:** HU TAO REN *Juglans regia*. **Ref:** 3408.

**8505 Glansrin B**

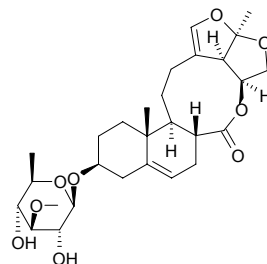
$C_{40}H_{26}O_{25}$  (906.64). Off-brown amorphous powder,  $[\alpha]_D^{23} = +90^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antioxidant (SOD-like activity,  $EC_{50} = 41.9\mu\text{mol/L}$ , control Gallic acid,  $EC_{50} = 31.7\mu\text{mol/L}$ , *L*-Ascorbic acid,  $EC_{50} = 34.6\mu\text{mol/L}$ ); antioxidant (DPPH free radical scavenger,  $EC_{50} = 0.93\mu\text{mol/L}$ , control Gallic acid,  $EC_{50} = 5.88\mu\text{mol/L}$ , *L*-Ascorbic acid,  $EC_{50} = 6.25\mu\text{mol/L}$ ). **Source:** HU TAO REN *Juglans regia*. **Ref:** 3408.

**8506 Glansrin C**

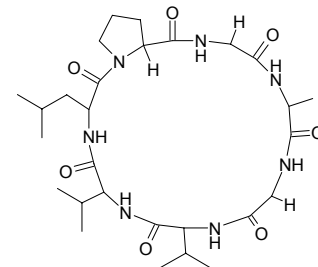
$C_{41}H_{26}O_{26}$  (934.65). Off-brown amorphous powder,  $[\alpha]_D^{23} = +79^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antioxidant (SOD-like activity,  $EC_{50} = 21.4\mu\text{mol/L}$ , control Gallic acid,  $EC_{50} = 31.7\mu\text{mol/L}$ , *L*-Ascorbic acid,  $EC_{50} = 34.6\mu\text{mol/L}$ ); antioxidant (DPPH free radical scavenger,  $EC_{50} = 0.57\mu\text{mol/L}$ , control Gallic acid,  $EC_{50} = 5.88\mu\text{mol/L}$ , *L*-Ascorbic acid,  $EC_{50} = 6.25\mu\text{mol/L}$ ). **Source:** HU TAO REN *Juglans regia*. **Ref:** 3408.

**8507 Glaucogenin C mono-D-thevetoside**

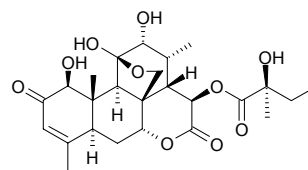
Glaucogenin C 3-*O*- $\beta$ -*D*-thevetopyranoside  $C_{28}H_{40}O_9$  (520.63). Colorless fine needles, mp 185–187°C,  $[\alpha]_D^{25} = +26.10^\circ$  ( $c = 0.991$ , MeOH). **Pharm:** Anti-inflammatory inactive (no significant inhibitory effects on mast cells and neutrophils stimulated with various inducers; no significant inhibitory effects on TNF- $\alpha$  formation from RAW264.7 stimulated with LPS and N9 microglial cells stimulated with LPS/INF- $\gamma$ )<sup>[3054]</sup>; vasodilator inactive (*in vitro*, rat isolated aortic rings with endothelium, pre-contracted by 0.1 $\mu\text{mol/L}$  Phenylephrine or 100mmol/L KCl)<sup>[4077]</sup>. **Source:** BAI WEI *Cynanchum atratum* (root), LIU YE BAI QIAN *Cynanchum stauntonii*. **Ref:** 3054, 4077.

**8508 Glaucacyclopeptide A**

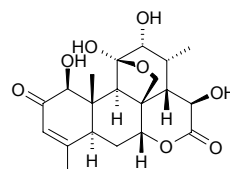
$C_{28}H_{47}N_7O_7$  (593.73). Colorless solid, mp 174–175°C,  $[\alpha]_D^{22} = -57^\circ$  ( $c = 0.2$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, KB cells,  $IC_{50} = 0.73\mu\text{mol/L}$ , control Doxorubicin,  $IC_{50} = 0.02\mu\text{mol/L}$ ). **Source:** ROU MAO FAN LI ZHI *Annona glauca* (seed). **Ref:** 5282.

**8509 Glaucarubinone**

[1259-86-5]  $C_{25}H_{34}O_{10}$  (494.54). mp 228–230°C,  $[\alpha]_D^{20} = +50^\circ$  ( $c = 0.27$ , methanol). **Pharm:** Antiamebic; antineoplastic (P<sub>388</sub>, Lewis lung cancer and B16 melanoma, 0.12–0.5mg/kg); antimalarial (ED = 0.006 $\mu\text{g/mL}$ ); cytotoxic (KB, ED<sub>50</sub> = 0.025 $\mu\text{g/mL}$ ); pesticide. **Source:** GAO CHU *Ailanthus excelsa*. **Ref:** 661.

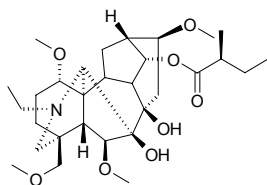
**8510 Glaucarubolone**

$C_{20}H_{26}O_8$  (394.43). **Source:** *Eurycoma harmandiana* (root). **Ref:** 5164.

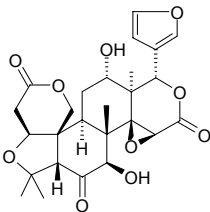


**8511 Glaucedine**

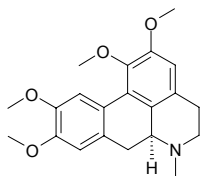
$C_{30}H_{49}NO_8$  (551.73). Source: HEI SHUI CUI QUE HUA BIAN ZHONG *Delphinium potaninii* var. *jiufengshanense* (root). Ref: 4227.

**8512 Glaucin A**

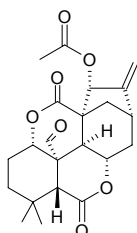
[88848-59-3]  $C_{26}H_{30}O_{10}$  (502.52). Source: WU ZHU YU *Evodia rutaecarpa*. Ref: 482.

**8513 Glaucine**

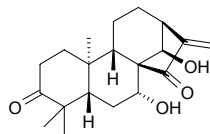
[475-81-0]  $C_{21}H_{25}NO_4$  (355.44). mp 120°C. Pharm: Treatment of amebic dysentery. Source: BEI JIA ER TANG SONG CAO *Thalictrum baicalense*, DONG BEI YAN HU SUO *Corydalis ambigua* var. *amurensis* [Syn. *Corydalis ambigua*] (rhizome: mean content of 3 origins = 0.114%<sup>[5508]</sup>), HUANG HUA HAI YING SU *Glaucium davum*, SHAN YAN HU SUO *Corydalis bulbosa* [Syn. *Corydalis solida*], SUI MAO HE BAO MU DAN *Dicentra eximia*, XIANG TANG SONG CAO *Thalictrum foetidum*, XIAO GUO TANG SONG CAO *Thalictrum microgynum* (root: content = 0.093%<sup>[5508]</sup>), YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *Yanhusuo*] (rhizome: mean content of 2 origins = 0.078%<sup>[5508]</sup>), YING SU *Papaver somniferum*. Ref: 4, 56, 658, 660, 5508.

**8514 Glaucolactone**

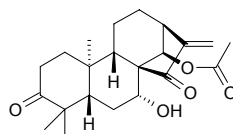
$C_{22}H_{26}O_7$  (402.45). mp 318–320°C,  $[\alpha]_D^{25} = +55^\circ$  ( $c = 0.30$ ,  $CHCl_3$ ). Source: LAN E XIANG CHA CAI *Isodon japonica* var. *glaucocalyx*. Ref: 4067.

**8515 Glaucocalyxin A**

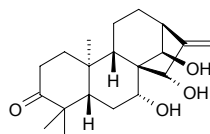
Leukamenin F  $C_{20}H_{28}O_4$  (332.44). mp 220–222°C,  $[\alpha]_D^{20} = -182.9^\circ$  ( $c = 0.25$ ,  $CHCl_3$ ). Source: LAN E XIANG CHA CAI *Isodon japonica* var. *glaucocalyx*. Ref: 4067.

**8516 Glaucocalyxin B**

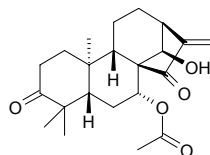
$C_{22}H_{30}O_5$  (374.48). mp 190–192°C,  $[\alpha]_D^{20} = -127.9^\circ$  ( $c = 0.203$ ,  $CHCl_3$ ). Source: LAN E XIANG CHA CAI *Isodon japonica* var. *glaucocalyx*. Ref: 4067.

**8517 Glaucocalyxin C**

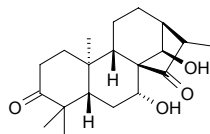
$C_{20}H_{30}O_4$  (334.46). mp 272–273°C,  $[\alpha]_D^{29} = -109^\circ$  ( $c = 0.1$ , MeOH). Source: LAN E XIANG CHA CAI *Isodon japonica* var. *glaucocalyx*. Ref: 4067.

**8518 Glaucocalyxin D**

$C_{22}H_{30}O_5$  (374.48). mp 130–132°C,  $[\alpha]_D^{19} = -161.5^\circ$  ( $c = 0.15$ , MeOH). Source: LAN E XIANG CHA CAI *Isodon japonica* var. *glaucocalyx*. Ref: 4067.

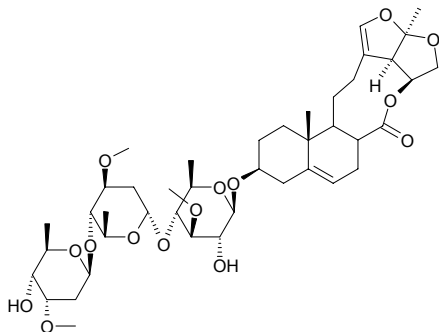
**8519 Glaucocalyxin E**

$C_{20}H_{30}O_4$  (334.46). mp 228–230°C,  $[\alpha]_D^{20} = -142.5^\circ$  ( $c = 0.15$ , MeOH). Source: LAN E XIANG CHA CAI *Isodon japonica* var. *glaucocalyx*. Ref: 4067.



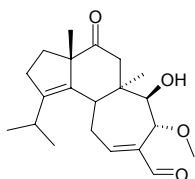
**8520 Glaucogenin C 3-O-β-D-cymaropyranosyl-(1→4)-α-L-diginopyranosyl-(1→4)-β-D-thevetopyranoside**

C<sub>42</sub>H<sub>64</sub>O<sub>15</sub> (808.97). **Pharm:** Anti-inflammatory (*in vitro*, inhibits TNF-α formation, 30 μmol/L; RAW264.7 cell lines LPS-stimulated, InRt = (33.7±6.2)%; N9 microglial cell lines, LPS/IFN-γ-stimulated, InRt = (30.9±4.3)%; no significant inhibitory effects on mast cells and neutrophils stimulated with various inducers); cytotoxic (*in vitro*, 212 cells, ED<sub>50</sub> = 0.96 μg/mL, significant activity). **Source:** BAI WEI *Cynanchum atratum* (root). **Ref:** 3054.



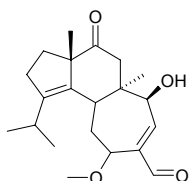
**8521 Glaucopine A**

14-Hydroxy-13-methoxy-8-oxocyclohexa-3,11-diene-12-carbaldehyde C<sub>21</sub>H<sub>30</sub>O<sub>4</sub> (346.47). Colorless resin, [α]<sub>D</sub><sup>31</sup> = -30.8° (c = 0.42, CHCl<sub>3</sub>). **Pharm:** Anti-inflammatory (*in vivo*, mouse ear edema induced by croton oil, 1.0 μmol/cm<sup>2</sup>, edema reduction = 62%, control Indomethacin, 0.3 μmol/cm<sup>2</sup>, edema reduction = 61%). **Source:** CANG BAI BING ROU CHI JUN *Sarcodon glaucopus*. **Ref:** 5063.



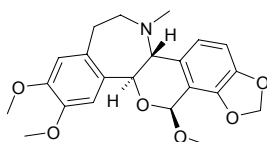
**8522 Glaucopine B**

14-Hydroxy-11-methoxy-8-oxocyclohexa-3,12-diene-12-carbaldehyde C<sub>21</sub>H<sub>30</sub>O<sub>4</sub> (346.47). Colorless resin, [α]<sub>D</sub><sup>31</sup> = -98.0° (c = 0.73, CHCl<sub>3</sub>). **Pharm:** Anti-inflammatory (*in vivo*, mouse ear edema induced by croton oil, 1.0 μmol/cm<sup>2</sup>, edema reduction = 55%, control Indomethacin, 0.3 μmol/cm<sup>2</sup>, edema reduction = 61%). **Source:** CANG BAI BING ROU CHI JUN *Sarcodon glaucopus*. **Ref:** 5063.



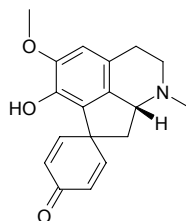
**8523 Gladine**

[5140-40-9] C<sub>22</sub>H<sub>25</sub>NO<sub>6</sub> (399.45). mp 103–105°C. **Source:** YA PIAN *Papaver somniferum*. **Ref:** 6.



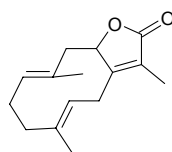
**8524 Glaziovine**

[6808-72-6] C<sub>18</sub>H<sub>19</sub>NO<sub>3</sub> (297.36). Colorless lamellar Crystals (benzene), mp 223°C, [α]<sub>D</sub> = -45.74° (c = 0.26, methanol). **Pharm:** Antineoplastic (nasopharyngeal carcinoma cells, ED<sub>50</sub> = 2.6 μg/mL); antiulcerative (rat and gpg, 5 mg/kg iv); CNS depressant (animal, relieves anxiety); antihypertensive (rat, 5–15 mg iv, 1–3 h blood pressure reduced by (50–70)%); anxiolytic and antidepressant, treatment of terror, anxiety and melancholy. **Source:** SAN HUA BA DOU *Croton sparsiflorus*, WEI ER SHI LV RONG HAO *Meconopsis cambrica*, ZI FAN LI ZHI *Annona purpurea*. **Ref:** 658, 661.



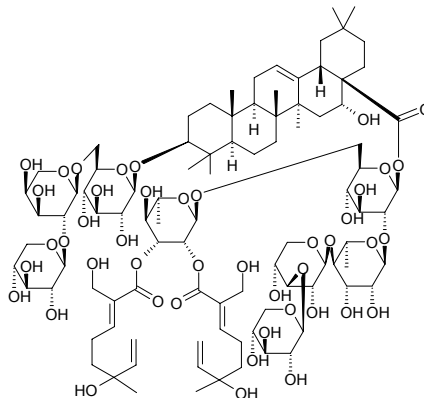
**8525 Glechomanolide**

C<sub>15</sub>H<sub>20</sub>O<sub>2</sub> (232.33). **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 μmol/L, InRt = (86.5±1.0)%, control L-NMMA, 100 μmol/L, InRt = (79.2±0.9)%, p < 0.01). **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 4150.



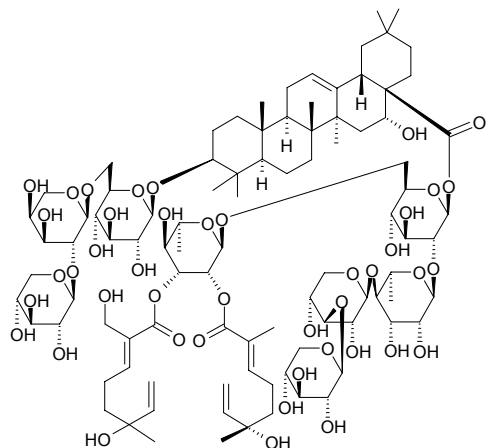
**8526 Gleditsiasaponin B**

C<sub>94</sub>H<sub>148</sub>O<sub>44</sub> (1982.20). [α]<sub>D</sub><sup>25</sup> = -20° (c = 0.10, MeOH). **Pharm:** Cytotoxic (HL-60, IC<sub>50</sub> = (1.0±0.2) μmol/L, control Taxol, IC<sub>50</sub> = (4.1E-4±1.1E-4) μmol/L; MCF7, IC<sub>50</sub> = (24.5±1.2) μmol/L, Taxol, IC<sub>50</sub> = (15.3±2.6) μmol/L; Bel7402, IC<sub>50</sub> = (42.6±4.2) μmol/L, Taxol, IC<sub>50</sub> = (0.3±0.1) μmol/L; BGC823, IC<sub>50</sub> = (60.6±2.8) μmol/L; HeLa, IC<sub>50</sub> = (50.6±0.4) μmol/L, Taxol, IC<sub>50</sub> = (33.0±6.1) μmol/L; KB, IC<sub>50</sub> = (44.7±4.0) μmol/L, Taxol, IC<sub>50</sub> > 100 μmol/L); apoptosis inducer (HL-60 cells, 15 μmol/L, sub-G1 population = (59.1±2.8)%, control sub-G1 population = (5.4±3.2)%, positive control Taxol, sub-G1 population = (40.5±0.2)%). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015.

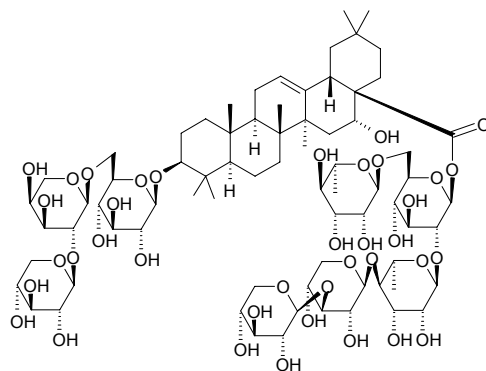


**8527 Gleditsiasaponin C'**

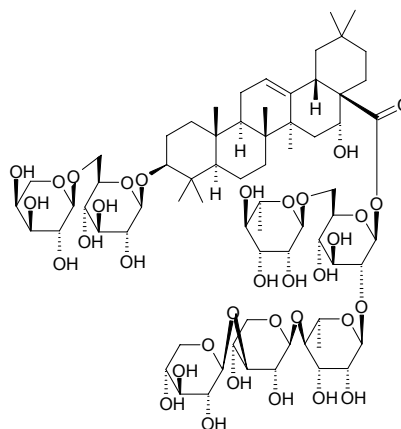
$C_{94}H_{148}O_{43}$  (1966.20).  $[\alpha]_D^{25} = -21^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60,  $IC_{50} = (0.4 \pm 0.0) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1E-4 \pm 1.1E-4) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (28.7 \pm 3.0) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (37.6 \pm 3.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (40.0 \pm 3.4) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (33.9 \pm 0.0) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} = (44.6 \pm 0.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(40.4 \pm 4.7)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015.

**8528 Gleditsiasaponin C'**

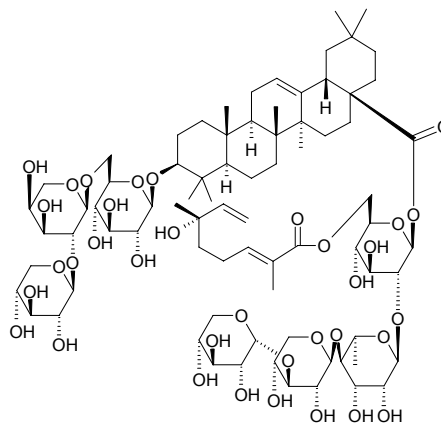
3-*O*- $\beta$ -*D*-Xylopyranosyl(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl-28-*O*- $\beta$ -*D*-Xylopyranosyl(1 $\rightarrow$ 3)- $\beta$ -*D*-Xylopyranosyl(1 $\rightarrow$ 4)- $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 2)-[ $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 6)]- $\beta$ -*D*-glucopyranosyl echinocystic acid  $C_{74}H_{120}O_{38}$  (1617.76). White amorphous solid, mp 234–235°C(dec),  $[\alpha]_D^{21} = -18^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60,  $IC_{50} = (100.0 \pm 5.2) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1E-4 \pm 1.1E-4) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (35.7 \pm 2.5) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} > 100 \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (100 \pm 3.7) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (54.0 \pm 1.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} > 100 \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ )<sup>[5015]</sup>; apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(8.6 \pm 2.6)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ )<sup>[5015]</sup>. **Source:** YUN NAN ZAO JIA *Gleditsia delavayi*, ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*]. **Ref:** 2257, 2375, 5015.

**8529 Gleditsiasaponin E'**

$C_{69}H_{112}O_{34}$  (1485.64). White amorphous solid, mp 232–233°C(dec),  $[\alpha]_D^{21} = -33^\circ$  ( $c = 0.10$ , MeOH). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*]. **Ref:** 2375.

**8530 Gleditsioside A**

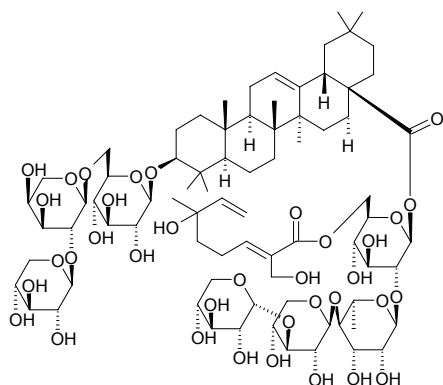
$C_{78}H_{124}O_{35}$  (1621.84).  $[\alpha]_D^{25} = -11^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60,  $IC_{50} = (16.7 \pm 0.8) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1E-4 \pm 1.1E-4) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (12.9 \pm 1.1) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (34.6 \pm 0.8) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (37.5 \pm 2.5) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (35.8 \pm 1.2) \mu\text{mol/L}$ , Taxol,  $IC_{50} = 33.0 \pm 6.1 \mu\text{mol/L}$ ; KB,  $IC_{50} = (44.5 \pm 3.0) \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(8.3 \pm 1.7)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015.



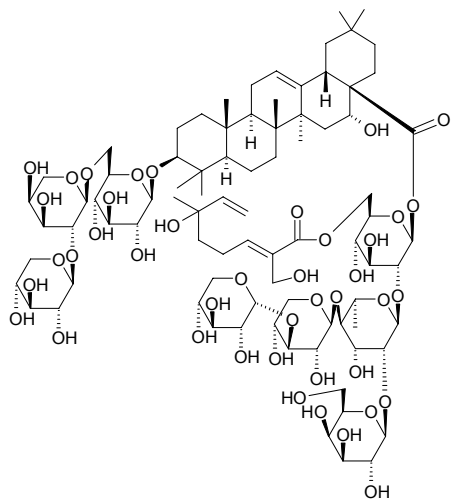


**8531 Gleditsioside B**

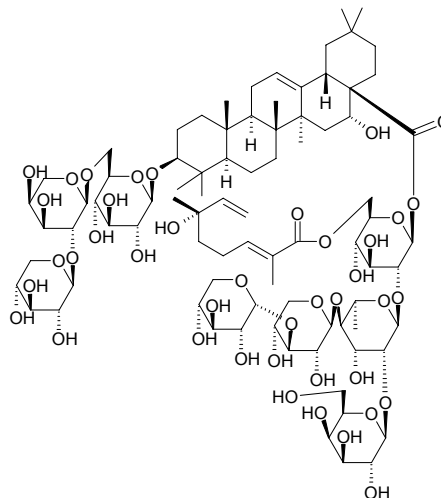
$C_{78}H_{124}O_{36}$  (1637.84).  $[\alpha]_D^{25} = -10^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60,  $IC_{50} = (14.7 \pm 1.1) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1E-4 \pm 1.1E-4) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (17.5 \pm 0.8) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (27.4 \pm 0.8) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (46.6 \pm 4.6) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (35.9 \pm 1.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} = (44.7 \pm 4.3) \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(14.9 \pm 3.0)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015.

**8532 Gleditsioside C**

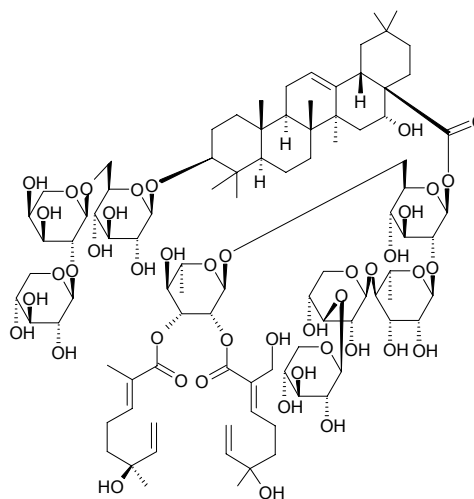
$C_{84}H_{134}O_{42}$  (1815.98).  $[\alpha]_D^{25} = -15^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60,  $IC_{50} = (2.2 \pm 0.2) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1E-4 \pm 1.1E-4) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (26.3 \pm 2.3) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (50.3 \pm 2.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (50.6 \pm 4.2) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (36.7 \pm 3.2) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} = (33.1 \pm 3.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(25.8 \pm 4.0)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015.

**8533 Gleditsioside D**

$C_{84}H_{134}O_{41}$  (1799.98).  $[\alpha]_D^{25} = -19^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60,  $IC_{50} = (3.5 \pm 0.1) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1E-4 \pm 1.1E-4) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (9.7 \pm 0.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (6.6 \pm 0.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (6.0 \pm 2.2) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (4.7 \pm 0.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} = (42.5 \pm 3.8) \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(13.8 \pm 2.5)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015.

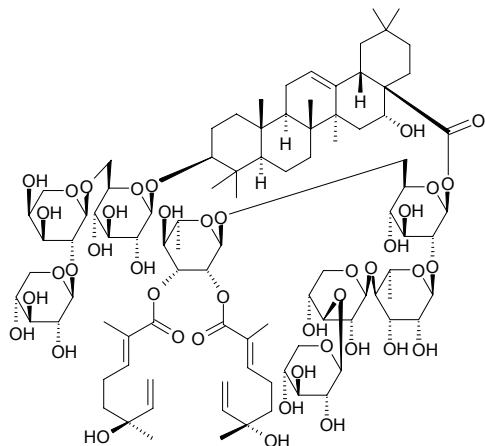
**8534 Gleditsioside E**

$C_{94}H_{148}O_{43}$  (1966.20).  $[\alpha]_D^{25} = -23^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (Bel7402 cancer cell,  $IC_{50} = (3.1 \pm 2.8) \mu\text{mol/L}$ , control Paclitaxel,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (8.0 \pm 1.2) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (5.0 \pm 3.4) \mu\text{mol/L}$ , Paclitaxel,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; HL-60,  $IC_{50} = (3.0 \pm 1.3) \mu\text{mol/L}$ , Paclitaxel,  $IC_{50} = (4.1E-4 \pm 1.1E-4) \mu\text{mol/L}$ ; KB,  $IC_{50} = (34.3 \pm 4.5) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (6.6 \pm 2.3) \mu\text{mol/L}$ , Paclitaxel,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ )<sup>[5410]</sup>. **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015, 5410.

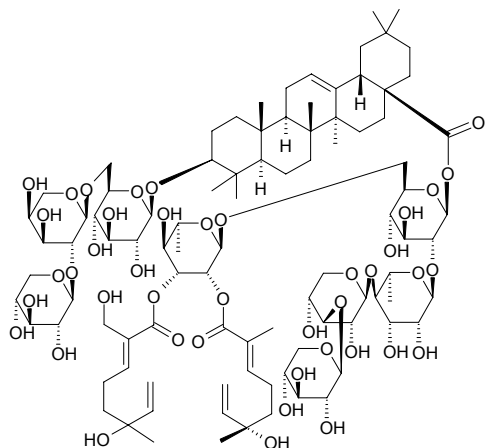


**8535 Gleditsioside F**

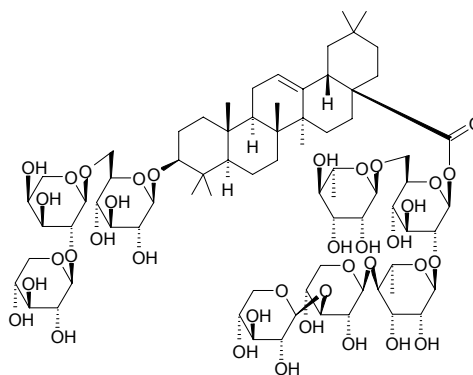
$C_{94}H_{148}O_{42}$  (1950.20).  $[\alpha]_D^{25} = -20^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60,  $IC_{50} = (1.1 \pm 0.1) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1 \times 10^{-4} \pm 1.1 \times 10^{-4}) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (23.6 \pm 3.2) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (3.5 \pm 0.1) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (49.1 \pm 0.1) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (3.3 \pm 0.2) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} = (36.7 \pm 3.0) \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(16.6 \pm 2.0)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015.

**8536 Gleditsioside G**

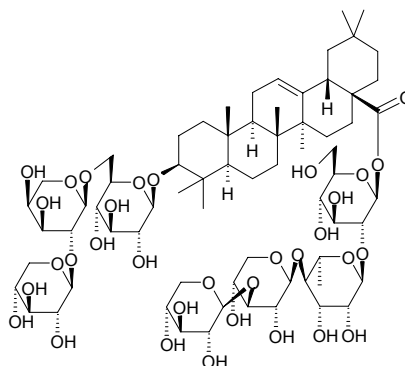
$C_{94}H_{148}O_{42}$  (1950.20).  $[\alpha]_D^{25} = -10^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60,  $IC_{50} = (21.9 \pm 2.2) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1 \times 10^{-4} \pm 1.1 \times 10^{-4}) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (35.8 \pm 5.8) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (39.0 \pm 0.3) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (52.9 \pm 5.2) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (45.0 \pm 2.1) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} = (42.5 \pm 0.8) \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(27.5 \pm 4.8)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015.

**8537 Gleditsioside H**

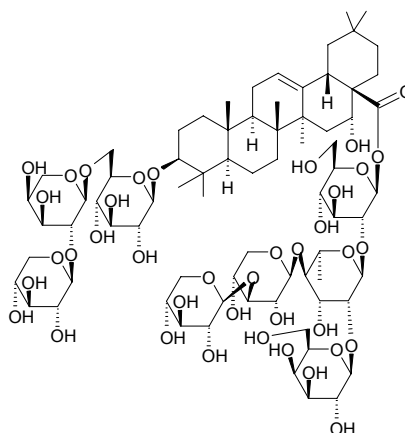
$C_{74}H_{120}O_{37}$  (1601.76). White amorphous solid, mp  $250\text{--}251^\circ\text{C}$ (dec),  $[\alpha]_D^{21} = -12^\circ$  ( $c = 0.10$ , MeOH). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*]. **Ref:** 2375.

**8538 Gleditsioside I**

$C_{68}H_{110}O_{33}$  (1455.62). White amorphous solid, mp  $255\text{--}256^\circ\text{C}$ (dec),  $[\alpha]_D^{21} = -17^\circ$  ( $c = 0.10$ , MeOH). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*]. **Ref:** 2375.

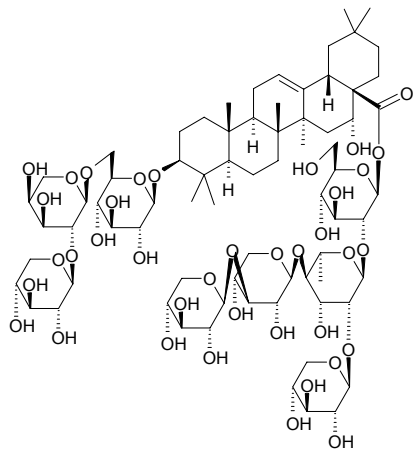
**8539 Gleditsioside J**

$C_{74}H_{120}O_{39}$  (1633.76). White amorphous solid, mp  $256\text{--}257^\circ\text{C}$ (dec),  $[\alpha]_D^{21} = -15^\circ$  ( $c = 0.10$ , MeOH). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*]. **Ref:** 2375.

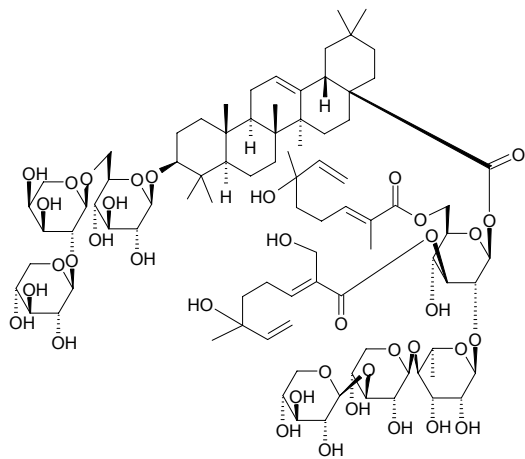


**8540 Gleditsioside K**

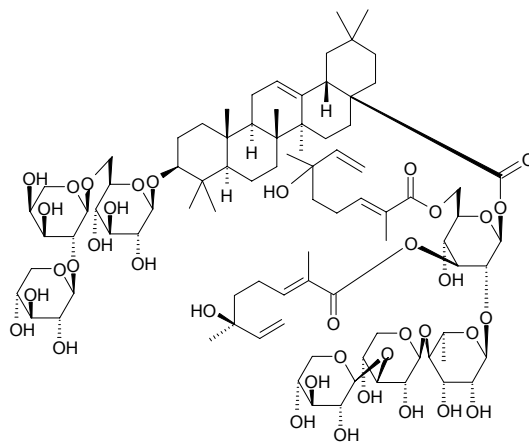
$C_{73}H_{118}O_{38}$  (1603.73). White amorphous solid, mp 238~239°C(dec),  $[\alpha]_D^{21} = -12^\circ$  ( $c = 0.10$ , MeOH). Source: ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*]. Ref: 2375.

**8541 Gleditsioside N**

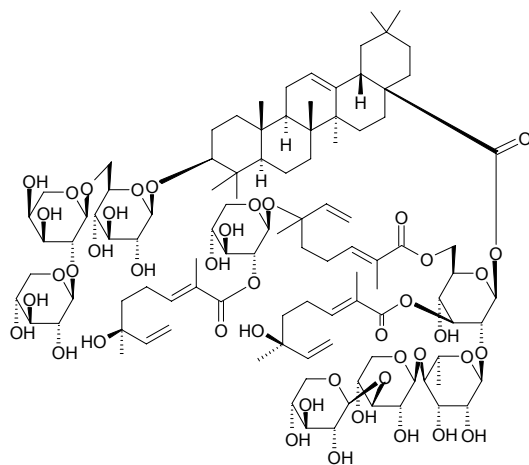
$C_{88}H_{138}O_{38}$  (1804.06).  $[\alpha]_D^{25} = -18^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (HL-60,  $IC_{50} = (31.9 \pm 1.8) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1 \times 10^{-4} \pm 1.1 \times 10^{-4}) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (58.1 \pm 4.2) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (49.3 \pm 5.8) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (54.7 \pm 0.7) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (35.7 \pm 1.8) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} = 60.6 \pm 3.5 \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(9.1 \pm 0.9)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). Source: ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). Ref: 5015.

**8542 Gleditsioside O**

$C_{88}H_{138}O_{37}$  (1788.06).  $[\alpha]_D^{25} = -20^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (HL-60,  $IC_{50} = (68.1 \pm 2.3) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1 \times 10^{-4} \pm 1.1 \times 10^{-4}) \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(7.8 \pm 2.5)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). Source: ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). Ref: 5015.

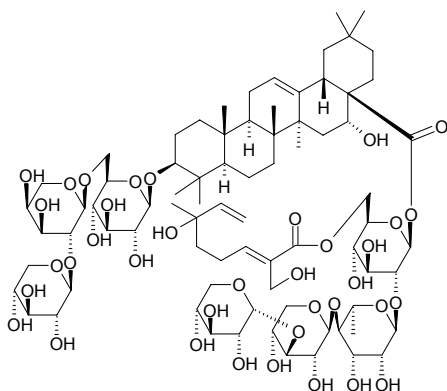
**8543 Gleditsioside P**

$C_{103}H_{160}O_{43}$  (2086.40).  $[\alpha]_D^{25} = -20^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (HL-60,  $IC_{50} = (31.9 \pm 2.6) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1 \times 10^{-4} \pm 1.1 \times 10^{-4}) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (23.1 \pm 2.0) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (40.0 \pm 2.3) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (40.0 \pm 2.1) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (35.7 \pm 0.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} = 36.7 \pm 4.3 \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(31.4 \pm 2.2)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). Source: ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). Ref: 5015.

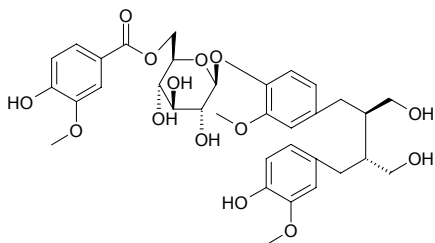


**8544 Gleditsioside Q**

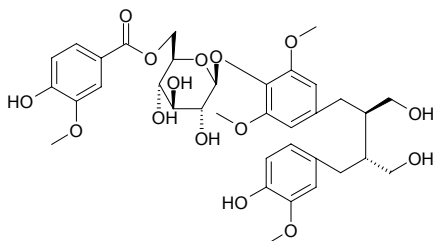
$C_{78}H_{124}O_{37}$  (1653.84).  $[\alpha]_D^{25} = -12^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60,  $IC_{50} = (5.9 \pm 0.5) \mu\text{mol/L}$ , control Taxol,  $IC_{50} = (4.1 \times 10^{-4} \pm 1.1 \times 10^{-4}) \mu\text{mol/L}$ ; MCF7,  $IC_{50} = (34.4 \pm 0.8) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (15.3 \pm 2.6) \mu\text{mol/L}$ ; Bel7402,  $IC_{50} = (29.0 \pm 2.7) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (0.3 \pm 0.1) \mu\text{mol/L}$ ; BGC823,  $IC_{50} = (51.0 \pm 3.0) \mu\text{mol/L}$ ; HeLa,  $IC_{50} = (43.9 \pm 1.5) \mu\text{mol/L}$ , Taxol,  $IC_{50} = (33.0 \pm 6.1) \mu\text{mol/L}$ ; KB,  $IC_{50} = (44.9 \pm 3.6) \mu\text{mol/L}$ , Taxol,  $IC_{50} > 100 \mu\text{mol/L}$ ); apoptosis inducer (HL-60 cells,  $15 \mu\text{mol/L}$ , sub-G1 population =  $(24.2 \pm 3.0)\%$ , control sub-G1 population =  $(5.4 \pm 3.2)\%$ , positive control Taxol, sub-G1 population =  $(40.5 \pm 0.2)\%$ ). **Source:** ZAO JIA *Gleditsia sinensis* [Syn. *Gleditsia horrida*] (fruit). **Ref:** 5015.

**8545 Glehlinoside A**

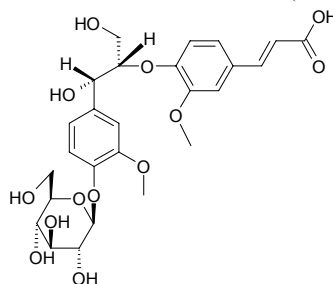
$C_{34}H_{43}O_{14}$  (674.71). Colorless amorphous solid,  $[\alpha]_D = -158.3^\circ$  ( $c = 0.08$ , MeOH). **Pharm:** Antioxidant (DPPH scavenger,  $EC_{50} = 18.9 \mu\text{g/mL} = 28.0 \mu\text{mol/L}$ , control Ascorbic acid,  $EC_{50} = 1.6 \mu\text{g/mL} = 9.1 \mu\text{mol/L}$ )<sup>[4154]</sup>. **Source:** BEI SHA SHEN *Glehnia littoralis* (underground part). **Ref:** 4154.

**8546 Glehlinoside B**

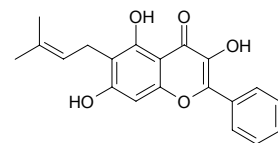
$C_{35}H_{44}O_{15}$  (704.73). Colorless amorphous solid,  $[\alpha]_D = -54.5^\circ$  ( $c = 0.107$ , MeOH). **Pharm:** Antioxidant (DPPH scavenger,  $EC_{50} > 50 \mu\text{g/mL}$ ,  $50 \mu\text{g/mL}$  InRt = 37%, control Ascorbic acid,  $EC_{50} = 1.6 \mu\text{g/mL} = 9.1 \mu\text{mol/L}$ )<sup>[4154]</sup>. **Source:** BEI SHA SHEN *Glehnia littoralis* (underground part). **Ref:** 4154.

**8547 Glehlinoside C**

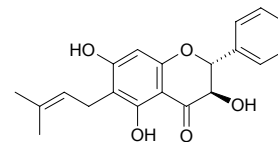
$C_{26}H_{32}O_{13}$  (552.54). Off-white amorphous solid,  $[\alpha]_D = -34.3^\circ$  ( $c = 0.087$ , MeOH). **Pharm:** Antioxidant (DPPH scavenger,  $EC_{50} > 50 \mu\text{g/mL}$ ,  $50 \mu\text{g/mL}$  InRt = 18%, control Ascorbic acid,  $EC_{50} = 1.6 \mu\text{g/mL} = 9.1 \mu\text{mol/L}$ ). **Source:** BEI SHA SHEN *Glehnia littoralis* (underground part). **Ref:** 4154.

**8548 Glepidotin A**

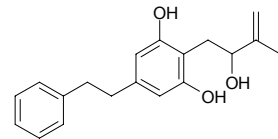
[42193-83-9]  $C_{20}H_{18}O_5$  (388.36). **Pharm:** Antibacterial (*Staphylococcus aureus*, *Mycobacterium smegmatis* and *Klebsiella pneumoniae*); antifungal (*Candida albicans*). **Source:** MEI ZHOU GAN CAO *Glycyrrhiza lepidota*. **Ref:** 1521.

**8549 Glepidotin B**

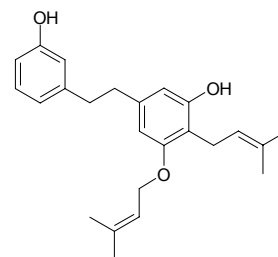
[87440-56-0]  $C_{20}H_{20}O_5$  (340.38). **Pharm:** Antimicrobial (broad spectrum). **Source:** MEI ZHOU GAN CAO *Glycyrrhiza lepidota*. **Ref:** 1521.

**8550 Glepidotin C**

[126026-25-3]  $C_{19}H_{22}O_3$  (298.39). **Pharm:** Antimicrobial. **Source:** MEI ZHOU GAN CAO *Glycyrrhiza lepidota*. **Ref:** 658.

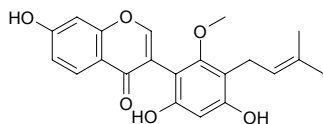
**8551 Glepidotin D**

2-(3-Methyl-2-butenyl)-3-O-(3-methyl-2-butenyl)-5-[2-(3-hydroxyphenyl)ethyl]-1,3-benzenediol  $C_{24}H_{30}O_3$  (366.50). **Pharm:** Anti-HIV ( $IC_{50} = 5.0 \mu\text{g/mL}$ ,  $EC_{50} = 2.0 \mu\text{g/mL}$ )<sup>[5180]</sup>. **Source:** MEI ZHOU GAN CAO *Glycyrrhiza lepidota* (stem and leaf). **Ref:** 5180.

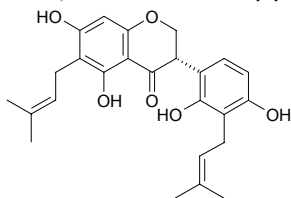


**8552 Glicoricone**

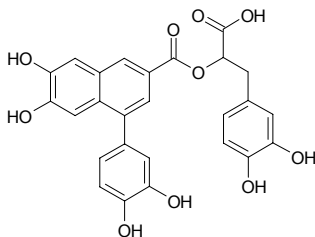
$C_{21}H_{20}O_6$  (368.39). Source: *Glycyrrhiza* sp. Ref: 2431.

**8553 Glisoflavanone**

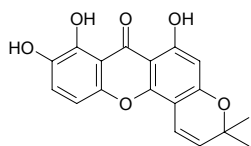
$C_{25}H_{28}O_6$  (424.50). Pale yellow acicular Crystals, mp 131°C,  $[\alpha]_D = 0^\circ$  ( $c = 1$ , acetone). Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 748.

**8554 Globoidnan A**

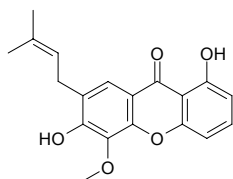
$C_{26}H_{20}O_{10}$  (492.44). Brown oil,  $[\alpha]_D = +14.4^\circ$  ( $c = 0.118$ , MeOH). Pharm: HIV integrase Inhibitor ( $IC_{50} = 0.64 \mu\text{mol/L}$ ). Source: *Eucalyptus globoidea* (bud). Ref: 3894.

**8555 Globulixanthone C**

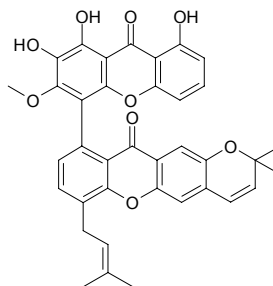
1,7,8-Trihydroxy-2,2-dimethylpyrano[5',6':3,4]xanthone  $C_{18}H_{14}O_6$  (326.31). Yellow needles, mp 285°C. Pharm: Antimicrobial (*in vitro*, significant activity against a range of microorganisms). Source: KA MAI LONG XIN FO NI A *Symphonia globulifera*. Ref: 2029.

**8556 Globulixanthone D**

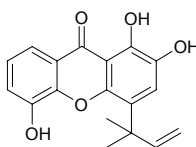
1,6-Dihydroxy-5-methoxy-7-(3-methylbut-2-enyl)xanthone  $C_{19}H_{18}O_5$  (326.35). Yellow Crystals, mp 120°C. Pharm: Antimicrobial (*in vitro*, significant activity against a range of microorganisms); cytotoxic ( $P_{388} \text{ED}_{50} = 0.42 \mu\text{g/mL}$ , control Mithramycin  $\text{ED}_{50} = 0.06 \mu\text{g/mL}$ , HT29  $\text{ED}_{50} = 0.98 \mu\text{g/mL}$ , control Mithramycin  $\text{ED}_{50} = 0.08 \mu\text{g/mL}$ )<sup>[4094]</sup>. Source: KA MAI LONG XIN FO NI A *Symphonia globulifera*, TAI WAN LV DAO TENG HUANG *Garcinia linii*. Ref: 2029, 4094.

**8557 Globulixanthone E**

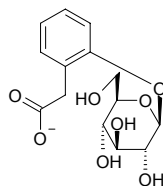
$C_{37}H_{30}O_9$  (618.65). Pale yellow amorphous powder, mp 228°C. Pharm: Antimicrobial (*in vitro*, significant activity against a range of microorganisms). Source: KA MAI LONG XIN FO NI A *Symphonia globulifera*. Ref: 2029.

**8558 Globuxanthone**

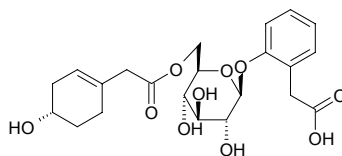
[13586-28-2]  $C_{18}H_{16}O_5$  (312.33). Source: KA MAI LONG XIN FO NI A *Symphonia globulifera*, *Garcinia vilsersiana* (bark). Ref: 1521, 3902.

**8559 Glochidacuminoside A**

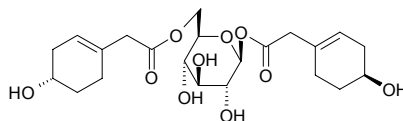
$C_{14}H_{17}O_8^-$  (313.29). Amorphous powder,  $[\alpha]_D^{20} = -39.2^\circ$  ( $c = 0.26$ , MeOH). Source: JIAN JIAN SUAN PAN ZI *Glochidion acuminatum* (leaf). Ref: 4286.

**8560 Glochidacuminoside B**

$C_{22}H_{28}O_{10}$  (452.46). Amorphous powder,  $[\alpha]_D^{23} = -48.0^\circ$  ( $c = 0.85$ , MeOH). Source: JIAN JIAN SUAN PAN ZI *Glochidion acuminatum* (leaf). Ref: 4286.

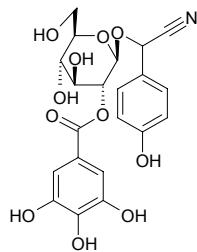
**8561 Glochidacuminoside C**

$C_{22}H_{32}O_{10}$  (456.49). Amorphous powder,  $[\alpha]_D^{26} = -25.8^\circ$  ( $c = 1.91$ , MeOH). Source: JIAN JIAN SUAN PAN ZI *Glochidion acuminatum* (leaf). Ref: 4286.

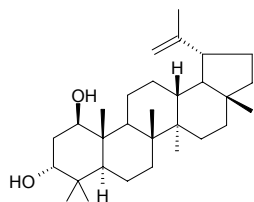


**8562 Glochidacuminoside D**

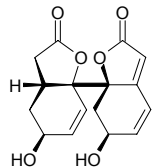
$C_{21}H_{21}NO_{11}$  (463.40). Amorphous powder,  $[\alpha]_D^{28} = -72.8^\circ$  ( $c = 0.67$ , MeOH).  
 Source: JIAN JIAN SUAN PAN ZI *Glochidion acuminatum* (leaf). Ref: 4286.

**8563 Glochidiol**

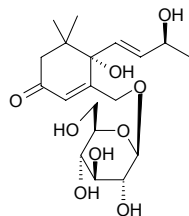
$C_{30}H_{50}O_2$  (442.73). mp 260~262°C,  $[\alpha]_D^{23} = +19^\circ$  ( $c = 0.98$ ,  $CHCl_3$ ); mp 265~267°C (hexane),  $[\alpha]_D^{20} = +18.3^\circ$  ( $c = 0.05$ g/mL,  $CHCl_3$ ). Pharm: Antineoplastic (EBV-EA induced by TPA,  $IC_{50} = 290$  (mol ratio/32pmol TPA), control Curcumin  $IC_{50} = 343$  (mol ratio/32pmol TPA)<sup>[4099]</sup>; cytotoxic (inhibition growth of hmn tumor cell lines, MCF7 (breast),  $GI_{50} = (6.6 \pm 0.7)\mu\text{mol/L}$ , control Doxorubicin,  $GI_{50} = (42.8 \pm 8.2)\mu\text{mol/L}$ ; NCI-H460 (lung),  $GI_{50} = (7.5 \pm 0.5)\mu\text{mol/L}$ , Doxorubicin,  $GI_{50} = (94.0 \pm 8.7)\mu\text{mol/L}$ ; SF268(CNS),  $GI_{50} = (9.7 \pm 0.3)\mu\text{mol/L}$ , Doxorubicin,  $GI_{50} = (93.0 \pm 7.0)\mu\text{mol/L}$ )<sup>[5065]</sup>. Source: CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (stem cortex), MAO GUO SUAN PAN ZI *Glochidion eriocarpum* (root and stem wood), YUAN GUO SUAN PAN ZI *Glochidion sphaerogynum* (root and stem wood). Ref: 4099, 5065.

**8564 Glochidiolide**

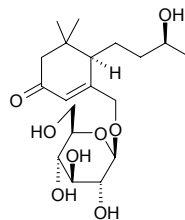
$C_{16}H_{16}O_6$  (304.30). Colorless rods, mp 210~213°C,  $[\alpha]_D^{25} = -69.8^\circ$  ( $c = 0.49$ , DMSO).  
 Source: JIAN JIAN SUAN PAN ZI *Glochidion acuminatum* (leaf). Ref: 4286.

**8565 Glochidionionoside A**

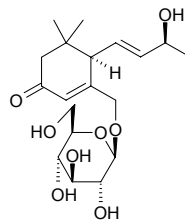
(6*S*,7*E*,9*S*)-Megastigman-3-one-4,7-diene-6,9,13-triol 13-*O*-β-*D*-glucopyranoside  $C_{19}H_{30}O_9$  (402.45). Amorphous powder,  $[\alpha]_D^{28} = +29.1^\circ$  ( $c = 1.48$ , MeOH). Source: CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (leaf). Ref: 4323.

**8566 Glochidionionoside B**

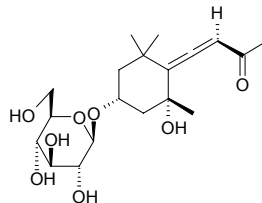
(6*R*,9*S*)-Megastigman-3-on-4-ene-9,13-diol  $C_{19}H_{32}O_8$  (388.46). Amorphous powder,  $[\alpha]_D^{28} = +7.4^\circ$  ( $c = 1.22$ , MeOH);  $[\alpha]_D^{25} = +7.5^\circ$  ( $c = 0.53$ , MeOH). Source: CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (leaf), LV BEI GUI HUA *Excoecaria cochinchinensis* var. *viridis*. Ref: 4323, 4543.

**8567 Glochidionionoside C**

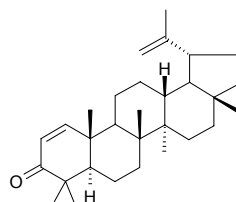
(6*R*,7*E*,9*S*)-Megastigman-3-one-4,7-diene-9,13-diol 13-*O*-β-*D*-glucopyranoside  $C_{19}H_{30}O_8$  (386.45). Amorphous powder,  $[\alpha]_D^{28} = +112.1^\circ$  ( $c = 1.42$ , MeOH). Source: CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (leaf). Ref: 4323.

**8568 Glochidionionoside D**

$C_{19}H_{30}O_8$  (386.45). Amorphous powder,  $[\alpha]_D^{28} = -47.8^\circ$  ( $c = 1.15$ , MeOH).  
 Source: CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (leaf). Ref: 4323.

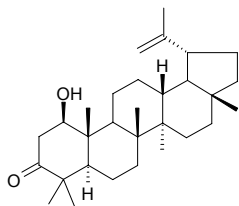
**8569 Glochidone**

$C_{30}H_{46}O$  (422.70). mp 165~167°C,  $[\alpha]_D^{23} = +42^\circ$  ( $c = 0.46$ ,  $CHCl_3$ ); mp 163~164°C (EtOH),  $[\alpha]_D^{20} = +70.6^\circ$  ( $c = 7$ mg/mL,  $CHCl_3$ ). Pharm: Antineoplastic (EBV-EA induced by TPA,  $IC_{50} = 341$  (mol ratio/32pmol TPA), control Curcumin  $IC_{50} = 343$  (mol ratio/32pmol TPA)<sup>[4099]</sup>; cytotoxic (inhibition growth of hmn tumor cell lines, MCF7 (breast),  $GI_{50} > 100\mu\text{mol/L}$ , control Doxorubicin,  $GI_{50} = (42.8 \pm 8.2)\mu\text{mol/L}$ ; NCI-H460 (lung),  $GI_{50} > 100\mu\text{mol/L}$ , Doxorubicin,  $GI_{50} = (94.0 \pm 8.7)\mu\text{mol/L}$ ; SF268(CNS),  $GI_{50} > 100\mu\text{mol/L}$ , Doxorubicin,  $GI_{50} = (93.0 \pm 7.0)\mu\text{mol/L}$ )<sup>[5065]</sup>. Source: CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (stem cortex), MAO GUO SUAN PAN ZI *Glochidion eriocarpum* (root and stem wood). Ref: 4099, 5065.

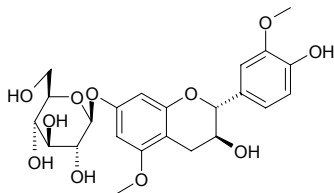


**8570 Glochidonol**

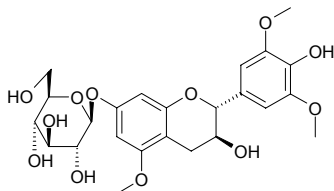
$C_{30}H_{48}O_2$  (440.72). mp 225–227°C,  $[\alpha]_D^{23} = +23^\circ$  ( $c = 0.95$ ,  $CHCl_3$ ); mp 228–230°C (hexane),  $[\alpha]_D^{20} = +50.7^\circ$  ( $c = 0.5g/100mL$ ,  $CHCl_3$ ). **Pharm:** Antineoplastic (EBV-EA induced by TPA,  $IC_{50} = 325$  (mol ratio/32pmol TPA), control Curcumin  $IC_{50} = 343$  (mol ratio/32pmol TPA)<sup>[4099]</sup>; cytotoxic (inhibition growth of hmn tumor cell lines, MCF7 (breast),  $GI_{50} = (9.0 \pm 3.7)\mu mol/L$ , control Doxorubicin,  $GI_{50} = (42.8 \pm 8.2)\mu mol/L$ ; NCI-H460 (lung),  $GI_{50} = (4.9 \pm 0.2)\mu mol/L$ , Doxorubicin,  $GI_{50} = (94.0 \pm 8.7)\mu mol/L$ ; SF268(CNS),  $GI_{50} = (9.8 \pm 0.5)\mu mol/L$ , Doxorubicin,  $GI_{50} = (93.0 \pm 7.0)\mu mol/L$ )<sup>[5065]</sup>. **Source:** CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (stem cortex), MAO GUO SUAN PAN ZI *Glochidion eriocarpum* (root and stem wood), YUAN GUO SUAN PAN ZI *Glochidion sphaerogynum* (root and stem wood). **Ref:** 4099, 5065.

**8571 Glochiflavanoside A**

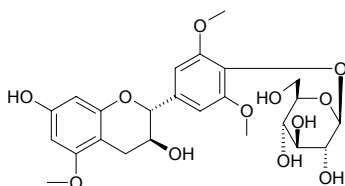
$C_{23}H_{28}O_{11}$  (480.47). Amorphous powder,  $[\alpha]_D^{22} = -47.1^\circ$  ( $c = 1.57$ , MeOH). **Source:** CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (leaf). **Ref:** 4103.

**8572 Glochiflavanoside B**

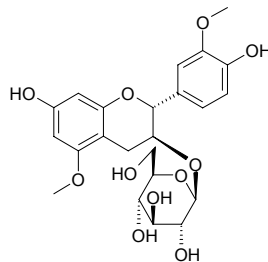
$C_{24}H_{30}O_{12}$  (510.50). Colorless needles (MeOH), mp 222–224°C,  $[\alpha]_D^{22} = -61.4^\circ$  ( $c = 0.57$ , MeOH). **Source:** CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (leaf). **Ref:** 4103.

**8573 Glochiflavanoside C**

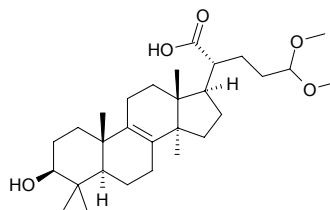
$C_{24}H_{30}O_{12}$  (510.50). Colorless needles (MeOH), mp 260–262°C,  $[\alpha]_D^{25} = -5.7^\circ$  ( $c = 0.35$ , MeOH). **Source:** CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (leaf). **Ref:** 4103.

**8574 Glochiflavanoside D**

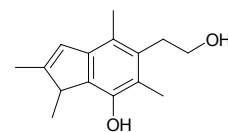
$C_{23}H_{28}O_{11}$  (480.47). Amorphous powder. **Source:** CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (leaf). **Ref:** 4103.

**8575 Gloeophyllic acid A dimethylacetal**

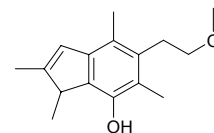
4,4,14α-Trimethyl-24-oxo-5α-chole-8-en-21-oic acid dimethylacetal  $C_{29}H_{48}O_5$  (476.70). Amorphous yellow powder, mp 205–210°C. **Source:** *Gloeophyllum odoratum*. **Ref:** 3972.

**8576 Gloeophyllol A**

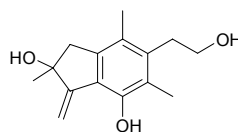
$C_{15}H_{20}O_2$  (232.23). Colorless oil,  $[\alpha]_D = -33^\circ$  ( $c = 0.2$ ,  $CHCl_3:CH_3OH = 19:1$ ). **Pharm:** Antibacterial inactive (*Bacillus brevis*, *Bacillus subtilis*, *Enterobacter dissolvens*, *Micrococcus luteus*, 100μg/filter disc); antifungal inactive (*Mucor miehei*, *Paecilomyces notatum*, *Paecilomyces variotii*, *Nematospora coryli*, 100μg/filter disc); cytotoxic inactive (HeLa-S3, HL-60, COS-7). **Source:** *Gloeophyllum* sp. **Ref:** 3968.

**8577 Gloeophyllol B**

$C_{16}H_{22}O_2$  (246.35). Colorless oil. **Pharm:** Antifungal (*Mucor miehei*, *Penicillium notatum*, 50μg/filter disc, weak activity); cytotoxic inactive (HeLa-S3, HL-60, COS-7). **Source:** *Gloeophyllum* sp. **Ref:** 3968.

**8578 Gloeophyllol C**

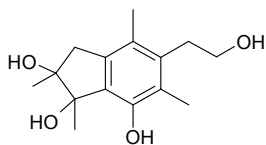
$C_{15}H_{20}O_3$  (248.32). Colorless oil, with no optical activity ( $c = 0.6$ ,  $CHCl_3$ ). **Pharm:** Antifungal inactive (*Mucor miehei*, *Penicillium notatum*, 50μg/filter disc); cytotoxic inactive (HeLa-S3, HL-60, COS-7). **Source:** *Gloeophyllum* sp. **Ref:** 3968.



**8579 Gloeophyllol D**

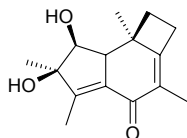
$C_{15}H_{22}O_4$  (266.34). Colorless oil, with no optical activity ( $c = 0.4$ ,  $CHCl_3$ ).

**Pharm:** Antibacterial inactive (*Bacillus brevis*, *Bacillus subtilis*, *Enterobacter dissolvens*, 100 $\mu$ g/filter disc); antifungal (*Mucor miehei*, *Paecilomyces notatum*, *Paecilomyces variotii*, *Nematospora coryli*, 100 $\mu$ g/filter disc); cytotoxic inactive (HeLa-S3, HL-60, COS-7). **Source:** *Gloeophyllum* sp. **Ref:** 3968.

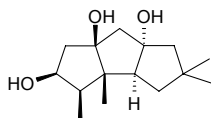
**8580 Gloeophyllone**

$C_{15}H_{20}O_3$  (248.32). Colorless oil,  $[\alpha]_D = -140^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). **Pharm:**

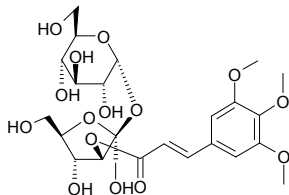
Antibacterial inactive (*Bacillus brevis*, *Bacillus subtilis*, *Enterobacter dissolvens*, 100 $\mu$ g/filter disc); antifungal inactive (*Mucor miehei*, *Paecilomyces notatum*, *Paecilomyces variotii*, *Nematospora coryli*, 100 $\mu$ g/filter disc); cytotoxic inactive (HeLa-S3, HL-60, COS-7). **Source:** *Gloeophyllum* sp. **Ref:** 3968.

**8581 Gloosteretriol**

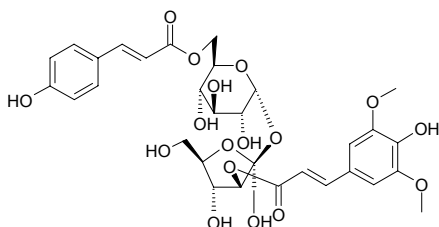
$C_{15}H_{26}O_3$  (254.37). Colorless prismatic Crystals, mp 205~206°C,  $[\alpha]_D^{22} = +5.6^\circ$  ( $c = 0.115$ , methanol). **Source:** YU ER *Gloeostereum incarnatum*. **Ref:** 214.

**8582 Glomeratose A**

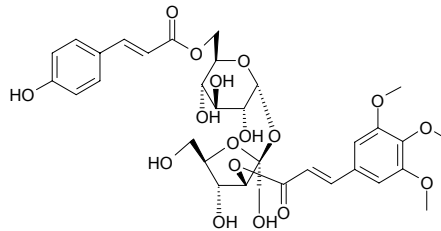
$C_{24}H_{34}O_{15}$  (562.53).  $[\alpha]_D = +5.7^\circ$ . **Source:** DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. **Ref:** 2184.

**8583 Glomeratose B**

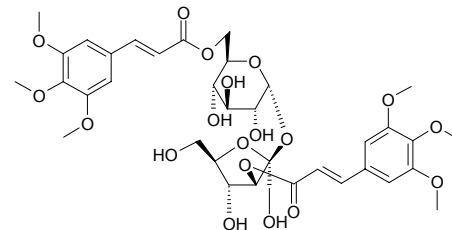
$C_{32}H_{38}O_{17}$  (694.65).  $[\alpha]_D = -51.6^\circ$ . **Source:** DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. **Ref:** 2184.

**8584 Glomeratose C**

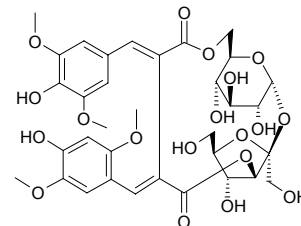
$C_{33}H_{40}O_{17}$  (708.68).  $[\alpha]_D = -71.2^\circ$ . **Source:** DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. **Ref:** 2184.

**8585 Glomeratose D**

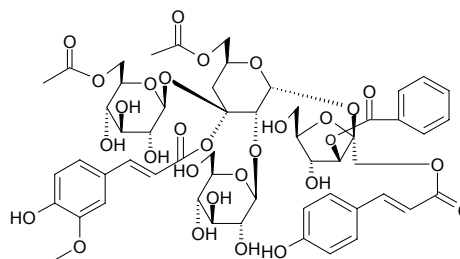
$C_{36}H_{46}O_{19}$  (782.76).  $[\alpha]_D = -55.8^\circ$ . **Source:** DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. **Ref:** 2184.

**8586 Glomeratose E**

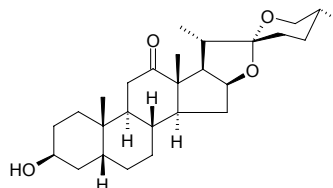
$C_{34}H_{40}O_{19}$  (752.69).  $[\alpha]_D = -133.0^\circ$ . **Source:** DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. **Ref:** 2184.

**8587 Glomeratose F**

$C_{54}H_{64}O_{29}$  (1177.09).  $[\alpha]_D = -133.0^\circ$ . **Source:** DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. **Ref:** 2184.

**8588 Gloriogenin**

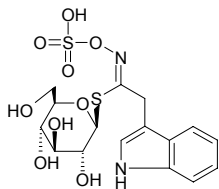
[38676-82-3]  $C_{27}H_{42}O_4$  (430.63). mp 166°C. **Source:** JIAN MA *Agave sisalana*. **Ref:** 2503.



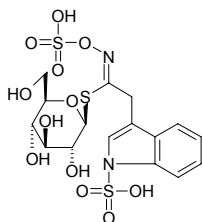


**8589 Glucobrassicin**

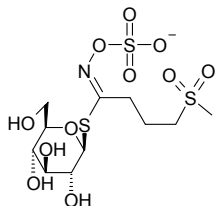
[4356-52-9]  $C_{16}H_{20}N_2O_9S_2$  (448.47). Source: BAO ZI GAN LAN *Brassica oleracea* var. *gemmifera*, DA QING YE *Isatis indigotica*, GAN LAN *Brassica oleracea* var. *capitata*, LAI FU ZI *Raphanus sativus*, OU ZHOU YOU CAI *Brassica napus*. Ref: 2, 1521.

**8590 Glucobrassicin-1-Sulfonate**

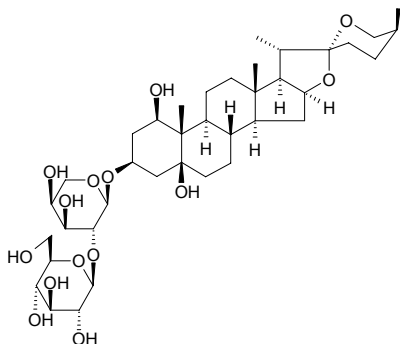
$C_{16}H_{20}N_2O_{12}S_3$  (528.54). Source: DA QING YE *Isatis indigotica*. Ref: 2, 6.

**8591 Glucocheirolin**

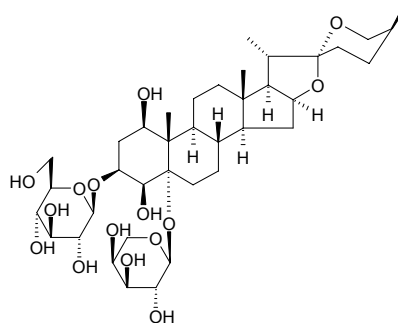
[554-86-9]  $C_{11}H_{20}NO_{11}S_3^-$  (438.47). Monohydrate, acicular crystals (90% ethanol), mp 158~160°C,  $[\alpha]_D^{27} = -21.56^\circ$  (water). Pharm: Antibacterial. Source: GUI ZHU XIANG *Cheiranthus cheiri*, HUA YE CAI *Brassica oleracea* var. *botrytis*, LA GEN *Armoracia lapathifolia*, WU JING GAN LAN *Brassica napus* var. *napobrassica*. Ref: 661.

**8592 Glucoconvallasaponin A**

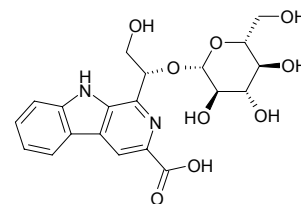
[19316-99-5]  $C_{38}H_{62}O_{14}$  (742.91). Source: LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 6.

**8593 Glucoconvallasaponin B**

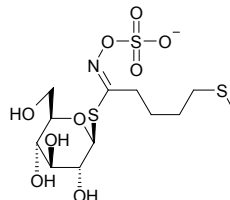
[16939-88-1]  $C_{38}H_{62}O_{15}$  (758.91). Source: LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 6.

**8594 Glucodichotomine B**

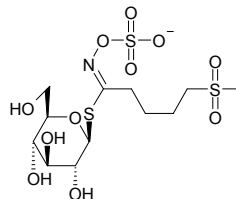
$C_{20}H_{22}N_2O_9$  (434.41). Yellow powder,  $[\alpha]_D^{27} = -28.2^\circ$  ( $c = 0.20$ , MeOH). Pharm:  $\beta$ -Hexosaminidase inhibitor inactive (RBL-2H3 cells, 100 $\mu$ mol/L, InRt = (3.2 $\pm$ 1.1)%), control Ketotifen fumarate, InRt = (19.1 $\pm$ 1.3)%<sup>[2571]</sup>. Source: YIN CHAI HU *Stellaria dichotoma* var. *lanceolata* (root: yield = 0.0014%). Ref: 2571.

**8595 Glucoerucin**

[21973-56-8]  $C_{12}H_{22}NO_9S_3^-$  (420.50). Source: BAO ZI GAN LAN *Brassica oleracea* var. *gemmifera*, GAN LAN *Brassica oleracea* var. *capitata*, WU JING GAN LAN *Brassica napus* var. *napobrassica*, ZHI MA CAI *Eruca sativa*. Ref: 658.

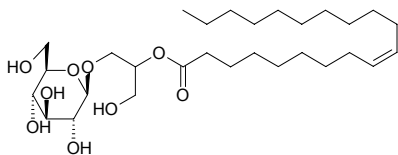
**8596 Glucoerysolin**

[74542-16-8]  $C_{12}H_{22}NO_{11}S_3^-$  (452.50). Pharm: Antibacterial (using its ligand erysoline); antifungal (using its ligand erysoline); cytotoxic (animal, using its ligand erysoline). Source: WU JING GAN LAN *Brassica napus* var. *napobrassica*, A FU HAN TANG JIE *Erysimum perofskianum*. Ref: 658.

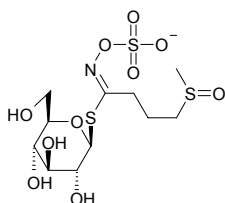


**8597 1-O-Gluco-2-O-gadoleic-glyceride**

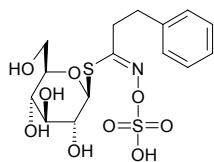
$C_{29}H_{54}O_9$  (546.75). White lamellar solid, mp 177~179°C. Source: CAO SU *Phlomis umbrosa*. Ref: 823.

**8598 Glucoiberin**

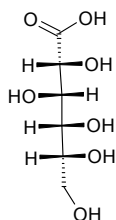
[554-88-1]  $C_{11}H_{20}NO_{10}S_3^-$  (422.47). Pharm: Cytotoxic (animal model). Source: BAO ZI GAN LAN *Brassica oleracea* var. *gemmifera*, GAN LAN *Brassica oleracea* var. *capitata*, HUA YE CAI *Brassica oleracea* var. *botrytis*, LA GEN *Armoracia lapathifolia*, PIE LAN *Brassica oleracea* var. *gongylodes*, QU QU HUA *Iberis amara*, YU YI GAN LAN *Brassica oleracea* var. *sabauda*. Ref: 658.

**8599 Gluconasturtiin**

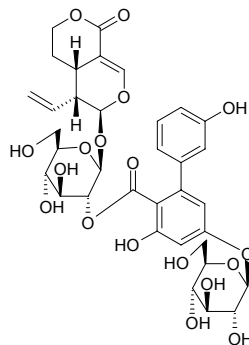
2-Phenylethyl glucosinolate [499-30-9]  $C_{15}H_{21}NO_9S_2$  (423.46). Off-white crystals (MeOH-EtOH, as K salt), mp 171°C (K salt),  $[\alpha]_D^{20} = -20.7^\circ$  ( $c = 1.0$ , H<sub>2</sub>O). Pharm: Cytotoxic (animal model). Source: BAI JIE ZI *Sinapis alba* [Syn. *Brassica alba*; *Brassica hirta*], DOU BAN CAI *Nasturtium officinale*, HEI JIE *Brassica nigra*, JIE CAI *Brassica juncea*, JIE ZI *Brassica juncea*, JIA DU XING CAI *Lepidium sativum*, OU ZHOU SHAN JIE *Barbarea vulgaris*. Ref: 658, 1521, 3196.

**8600 Gluconic acid**

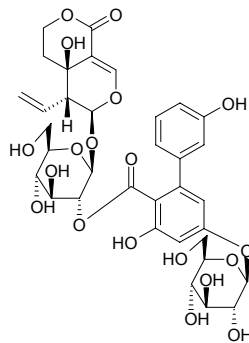
*D*-Gluconic acid  $C_6H_{12}O_7$  (196.16). mp 125~126°C. Source: HE YE *Nelumbo nucifera*. Ref: 6.

**8601 5''-O-β-D-Glucopyranosylamarogentin**

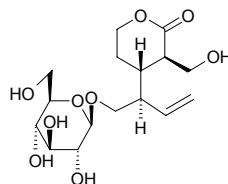
$C_{35}H_{40}O_{18}$  (748.70). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.

**8602 5''-O-β-D-Glucopyranosylamaroswerin**

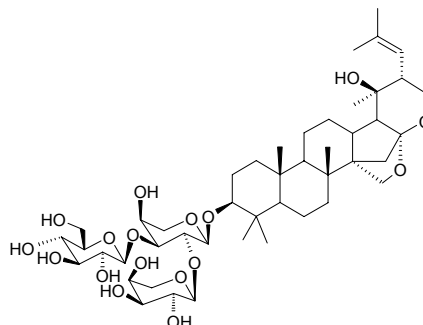
$C_{35}H_{40}O_{19}$  (764.70). Amorphous powder,  $[\alpha]_D^{25} = -40.4^\circ$  ( $c = 1.3$ , MeOH). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.

**8603 1-O-β-D-Glucopyranosylamplexin**

[157464-32-9]  $C_{16}H_{26}O_9$  (362.38). Source: BAI HUA LONG DAN *Gentiana algida*<sup>[704]</sup>, LONG DAN *Gentiana scabra* (dried rhizome and root)<sup>[3097]</sup>, RI BEN ZHANG YA CAI *Swertia japonica*<sup>[2528]</sup>. Ref: 704, 2528, 3097.

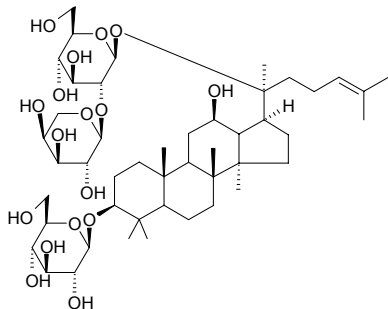
**8604 3-O-[β-D-Glucopyranosyl-(1→3)][α-L-arabinopyranosyl-(1→2)]-α-L-arabinopyranosyl-pseudojubenin**

$C_{46}H_{74}O_{17}$  (899.09). Source: JIA MA CHI XIAN *Bacopa monniera* (whole herb: yield = 0.019%fw). Ref: 4664.



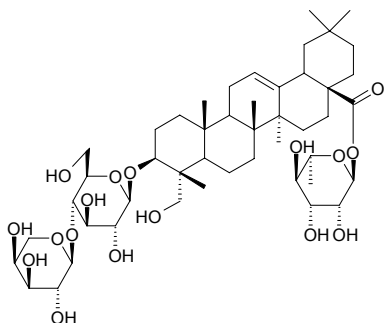
**8605 3 $\beta$ -O- $\beta$ -D-Glucopyranosyl-20-O-[ $\alpha$ -L-arabinopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl]3 $\beta$ ,12 $\beta$ ,20(S)-trihydroxydammar-24-ene**

C<sub>47</sub>H<sub>80</sub>O<sub>17</sub> (917.15). Colorless amorphous powder, mp 189~192°C, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +34.5 (*c* = 0.08, MeOH). **Pharm:** Inhibits zoospore motility (*Aphanomyces cochlioides*, a causative fungus of spinach root rot). **Source:** SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2387.



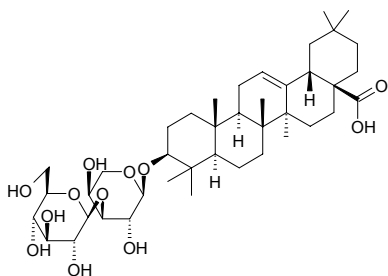
**8606 3 $\beta$ -O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-arabinopyranosyl hederagenin 28-O- $\alpha$ -L-rhamnopyranosyl ester**

C<sub>47</sub>H<sub>76</sub>O<sub>17</sub> (913.12). Colorless plate crystals (MeOH), mp 237~242°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +33.3° (*c* = 0.1, MeOH). **Pharm:** Antifungal (*Penicillium avellaneum*, MIA = 8 $\mu$ g/disc, control Amphotericin B, MIA = 0.04 $\mu$ g/disc; *Candida albicans*, MIA = 50 $\mu$ g/disc, control Amphotericin B, MIA = 0.4 $\mu$ g/disc; *Candida glabrata*, MIA = 20 $\mu$ g/disc, Amphotericin B, MIA = 0.8 $\mu$ g/disc; *Saccharomyces cerevisiae*, MIA = 5 $\mu$ g/disc, Amphotericin B, MIA = 3.2 $\mu$ g/disc; *Cryptococcus neoformans*, MIA = 50 $\mu$ g/disc, Amphotericin B, MIA = 0.08 $\mu$ g/disc; *T. beigelii*, MIA = 10 $\mu$ g/disc, Amphotericin B, MIA = 0.8 $\mu$ g/disc; *P. oryzae*, MIA = 10 $\mu$ g/disc, Amphotericin B, MIA = 0.08 $\mu$ g/disc). **Source:** GAN QING TIE XIAN LIAN *Clematis tangutica*. **Ref:** 5413.



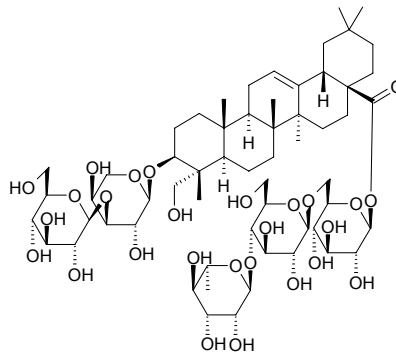
**8607 3-O- $\beta$ -D-Glucopyranosyl(1 $\rightarrow$ 3)- $\alpha$ -L-arabinopyranosyl oleanolic acid**

C<sub>41</sub>H<sub>66</sub>O<sub>12</sub> (750.98). White powder (CHCl<sub>3</sub>/MeOH), mp 224~226°C. **Source:** HUANG HUA BAI JIANG *Patrinia scabiosaefolia*. **Ref:** 2455.



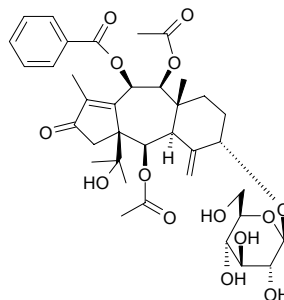
**8608 3 $\beta$ -[(O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -L-arabinopyranosyl)oxy]-23-hydroxyolean-12-en-28-oic acid O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester**

C<sub>59</sub>H<sub>96</sub>O<sub>27</sub> (1237.41). **Source:** SAN YE MU TONG *Akebia trifoliata* (stem). **Ref:** 4545.



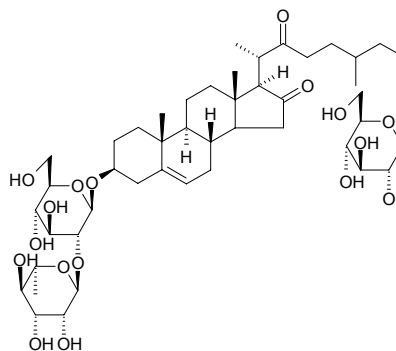
**8609 5 $\alpha$ -O-( $\beta$ -D-Glucopyranosyl)-10 $\beta$ -benzoyltaxacustone**

C<sub>37</sub>H<sub>48</sub>O<sub>14</sub> (716.79). mp 178~180°C, [ $\alpha$ ]<sub>D</sub> = -92.6° (CHCl<sub>3</sub>). **Source:** ZI SHAN *Taxus cuspidata*. **Ref:** 662.



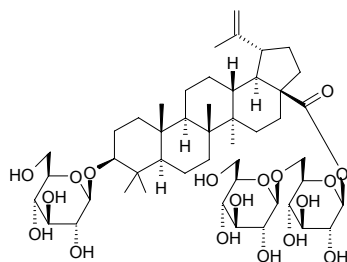
**8610 26-O- $\beta$ -D-Glucopyranosyl-3 $\beta$ ,26-dihydroxy- $A^5$ -choleslen-16,22-dioxo-3-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside**

C<sub>45</sub>H<sub>72</sub>O<sub>18</sub> (901.06). White powder (MeOH), mp 225~226°C, mp 208~209°C. **Source:** BAI HE *Lilium brownii* var. *viridulum* [Syn. *Lilium brownii* var. *colchesteri*]. **Ref:** 418, 441.



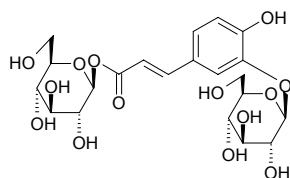
**8611 3-O-β-D-Glucopyranosyl betulinic acid-28-O-β-D-glucopyranosyl-(1→6)-β-D-glucopyranoside**

C<sub>48</sub>H<sub>78</sub>O<sub>18</sub> (943.15). White powder, mp 204~206°C,  $[\alpha]_D^{20} = -16.9^\circ$  ( $c = 0.5$ , methanol). Source: DONG BEI CI REN SHEN *Oplopanax elatus*. Ref: 370.



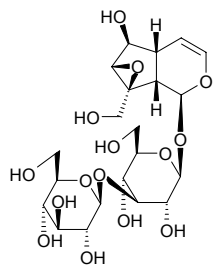
**8612 1-O-(3'-O-β-D-Glucopyranosyl)-(E)-caffeoyl-β-D-glucopyranose**

C<sub>21</sub>H<sub>28</sub>O<sub>14</sub> (504.45). Yellow amorphous powder,  $[\alpha]_D^{15} = -438.4^\circ$  ( $c = 0.5$ , MeOH). Source: GE XUN *Balanophora japonica* (underground part: yield = 0.0026%). Ref: 4101.



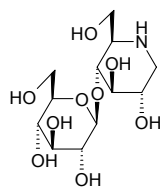
**8613 3'-O-β-D-Glucopyranosyl-catalpol**

C<sub>21</sub>H<sub>32</sub>O<sub>15</sub> (524.48). Amorphous powder,  $[\alpha]_D^{27} = -74.9^\circ$  ( $c = 3.41$ , MeOH). Source: CHA RU SHI WAN CUO *Asystasia intrusa*. Ref: 2589.



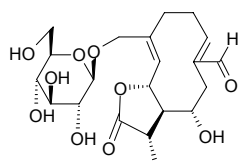
**8614 4-O-β-D-Glucopyranosyl-1-deoxyojirimycin**

C<sub>12</sub>H<sub>23</sub>NO<sub>9</sub> (325.32). Source: *Morus* sp. Ref: 2513.



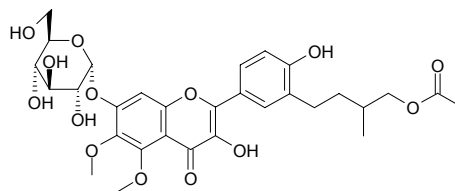
**8615 15-O-β-D-Glucopyranosyl-11β,13-dihydrourospermal A**

C<sub>21</sub>H<sub>30</sub>O<sub>10</sub> (442.47). Oil. Source: XU DUAN JU *Sonchus asper* [Syn. *Sonchus oleraceus* var. *asper*] (root). Ref: 3923.



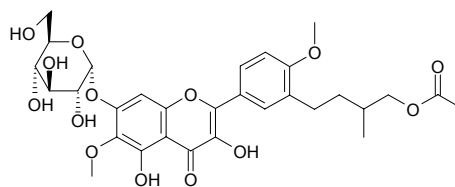
**8616 7-O-α-D-Glucopyranosyl-3,4'-dihydroxy-3'-(4''-acetoxy-3''-methylbutyl)-5,6-dimethoxyflavone**

C<sub>30</sub>H<sub>36</sub>O<sub>14</sub> (620.61). Yellowish gummy solid,  $[\alpha]_D^{24} = +14.2^\circ$  ( $c = 0.07$ , MeOH). Pharm: α-Glucosidase inhibitor inactive. Source: JIA LIAN QIAO YE *Duranta repens*. Ref: 4050.



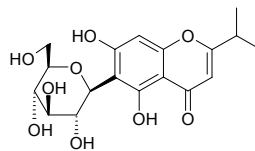
**8617 7-O-α-D-Glucopyranosyl-3,5-dihydroxy-3'-(4''-acetoxy-3''-methylbutyl)-6,4'-dimethoxyflavone**

C<sub>30</sub>H<sub>36</sub>O<sub>14</sub> (620.61). Yellowish gummy solid,  $[\alpha]_D^{24} = +27^\circ$  ( $c = 0.1$ , MeOH). Pharm: α-Glucosidase inhibitor (IC<sub>50</sub> = (65.5±2.5)μmol/L, control Deoxyojirimycin, IC<sub>50</sub> = (425.6±8.1)μmol/L). Source: JIA LIAN QIAO YE *Duranta repens*. Ref: 4050.



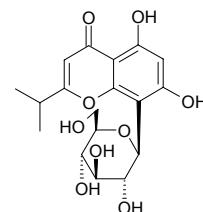
**8618 6β-C-Glucopyranosyl-5,7-dihydroxy-2-isopropylchromone**

C<sub>18</sub>H<sub>22</sub>O<sub>9</sub> (382.37). Colorless needles, mp 142~145°C,  $[\alpha]_D^{21} = +37.4^\circ$  ( $c = 0.51$ , MeOH). Source: GANG SONG *Baeckea frutescens*. Ref: 1895.



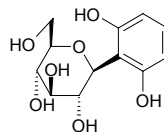
**8619 8β-C-Glucopyranosyl-5,7-dihydroxy-2-isopropylchromone**

C<sub>18</sub>H<sub>22</sub>O<sub>9</sub> (382.37). Colorless needles, mp 145~153°C,  $[\alpha]_D^{21} = +6.08^\circ$  ( $c = 1.05$ , MeOH). Source: GANG SONG *Baeckea frutescens*. Ref: 1895.



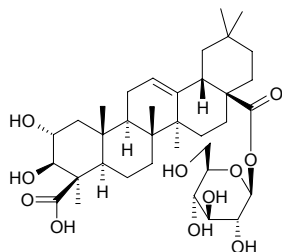
**8620 C-β-D-Glucopyranosyl-2,6-dihydroxyl benzene**

C<sub>12</sub>H<sub>16</sub>O<sub>7</sub> (272.26). Source: NANG ZHUANG ZI TAN *Pterocarpus marsupium* (heartwood). Ref: 3789.

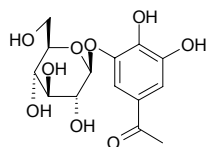


**8621 28-O-β-D-Glucopyranosyl-2α-3β-dihydroxyolean-12-ene-24,28-dioic acid**

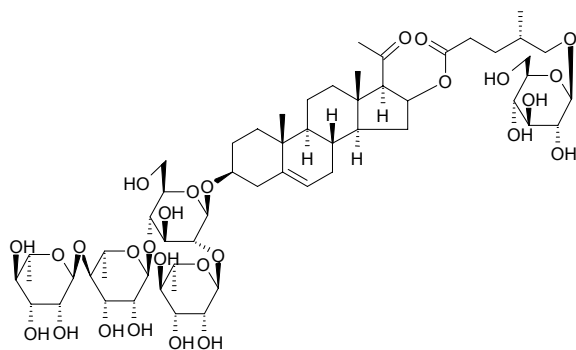
C<sub>36</sub>H<sub>56</sub>O<sub>11</sub> (664.84). **Pharm:** Tissue factor inhibitor (IC<sub>50</sub> = 0.036 mmol/L/Unit of TF). **Source:** MU GUA *Chaenomeles sinensis*. **Ref:** 5387.

**8622 1-(3-O-β-D-Glucopyranosyl-4,5-dihydroxyphenyl)-ethanone**

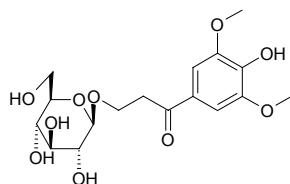
C<sub>14</sub>H<sub>18</sub>O<sub>9</sub> (330.29). **Source:** HU ZHANG *Polygonum cuspidatum*. **Ref:** 4186.

**8623 26-O-β-D-Glucopyranosyl-3β,26-dihydroxy-20,22-seco-25(R)-furost-5-en-20,22-dione-3-O-α-L-rhamnopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→4)-[α-L-rhamnopyranosyl-(1→2)]-β-D-glucopyranoside**

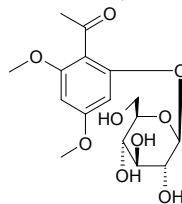
C<sub>57</sub>H<sub>92</sub>O<sub>27</sub> (1209.35). White amorphous powder. **Pharm:** Antifungal inactive (*Candida albicans*, *Candida glabrata*, *Candida tropicalis*, MIC > 200 μg/mL). **Source:** YUAN SHU YU *Dioscorea rotundata* [Syn. *Dioscorea cayenensis*]. **Ref:** 2560.

**8624 3-O-(β-D-Glucopyranosyl)-1-(3',5'-dimethoxy-4'-hydroxyphenyl)-1-propanone**

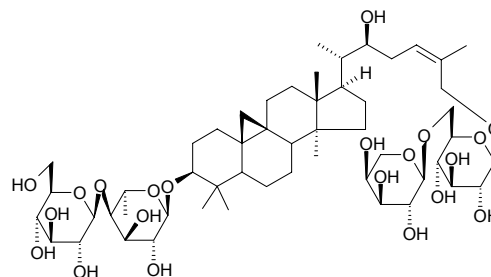
C<sub>17</sub>H<sub>24</sub>O<sub>10</sub> (388.37). White powder. **Source:** XIAO YE SHI NAN *Photinia parvifolia* (stem). **Ref:** 4553.

**8625 2-O-(2)-β-D-Glucopyranosyl-4,6-dimethoxy phenylenthanone**

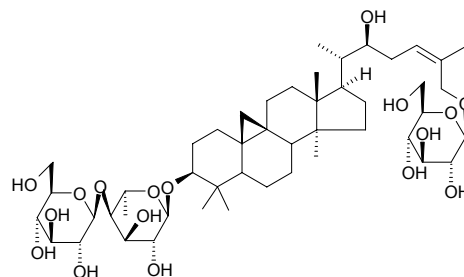
C<sub>16</sub>H<sub>22</sub>O<sub>9</sub> (358.35). White powder. **Source:** YAN SHENG JIA MU ZEI *Anabasis salsa*, DUAN YE JIA MU ZEI *Anabasis brevifolia*. **Ref:** 4861.

**8626 3-O-β-D-Glucopyranosyl-(1→4)-β-D-fucopyranosyl (22S,24Z)-cycloart-24-en-3β,22,26-triol 26-O-α-L-arabinopyranosyl-(1→6)-β-D-glucopyranoside**

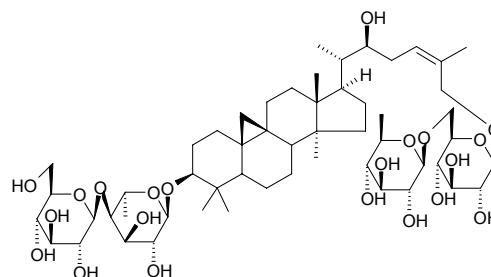
C<sub>53</sub>H<sub>88</sub>O<sub>21</sub> (1061.28). White powder, [α]<sub>D</sub> = 26.4° (c = 0.025, MeOH). **Source:** HUA DONG TANG SONG CAO *Thalictrum fortunei* (aerial parts: yield = 0.0040% dw). **Ref:** 911.

**8627 3β-O-β-D-Glucopyranosyl-(1→4)-β-D-fucopyranosyl (22S,24Z)-cycloart-24-en-3β,22,26-triol 26-O-β-D-glucopyranoside**

C<sub>48</sub>H<sub>80</sub>O<sub>17</sub> (929.16). White powder, [α]<sub>D</sub> = 7.40° (c = 0.14, MeOH). **Source:** HUA DONG TANG SONG CAO *Thalictrum fortunei* (aerial parts: yield = 0.0048% dw). **Ref:** 911.

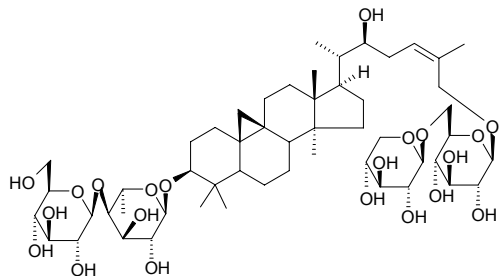
**8628 3-O-β-D-Glucopyranosyl-(1→4)-β-D-fucopyranosyl (22S,24Z)-cycloart-24-en-3β,22,26-triol 26-O-β-D-quinovopyranosyl-(1→6)-β-D-glucopyranoside**

C<sub>54</sub>H<sub>90</sub>O<sub>21</sub> (1075.31). White powder, [α]<sub>D</sub> = 3.58° (c = 0.12, MeOH). **Source:** HUA DONG TANG SONG CAO *Thalictrum fortunei* (aerial parts: yield = 0.0025% dw). **Ref:** 911.



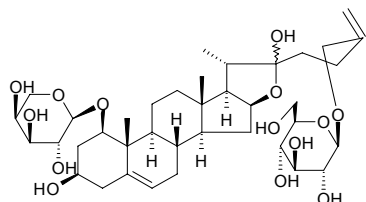
**8629 3-O-β-D-Glucopyranosyl-(1→4)-β-D-fucopyranosyl (22S,24Z)-cycloart-24-en-3β,22,26-triol 26-O-β-D-xylopyranosyl-(1→6)-β-D-glucopyranoside**

C<sub>53</sub>H<sub>88</sub>O<sub>21</sub> (1061.28). White powder, [α]<sub>D</sub><sup>20</sup> = -2.91° (c = 0.28, MeOH). Source: HUA DONG TANG SONG CAO *Thalictrum fortunei* (aerial parts: yield = 0.0017%dw). Ref: 911.



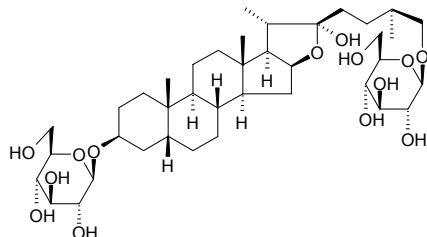
**8630 26-O-β-D-Glucopyranosyl-furostan-5,25(27)-diene-1β,3β,22β,26-tetrahydroxy-1-O-α-L-arabinopyranoside**

C<sub>38</sub>H<sub>60</sub>O<sub>14</sub> (740.89). White powder. Source: JIAN YE LONG XUE SHU *Dracaena cochinchinensis*. Ref: 2114.



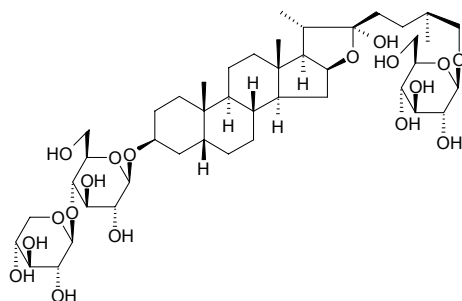
**8631 26-O-β-D-Glucopyranosylfurostane-3β,26-diol-3-O-β-D-glucopyranoside**

C<sub>39</sub>H<sub>66</sub>O<sub>14</sub> (758.95). [α]<sub>D</sub><sup>21</sup> = -48.0° (c = 1.00, MeOH). Source: GE BI TIAN MEN *Asparagus gobicus* (root). Ref: 4975.



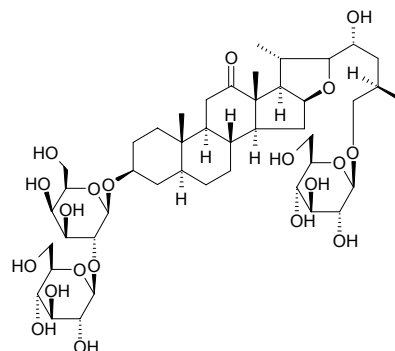
**8632 26-O-β-D-Glucopyranosylfurostane-3β,26-diol-3-O-β-D-xylopyranosyl-(1→4)-β-D-glucopyranoside**

C<sub>44</sub>H<sub>74</sub>O<sub>18</sub> (891.07). [α]<sub>D</sub><sup>21</sup> = -29.5° (c = 0.75, MeOH). Pharm: Cytotoxic (*in vitro*, HO-8910, IC<sub>50</sub> > 226 μmol/L, Vincristine, IC<sub>50</sub> = (25.1 ± 1.9) μmol/L; Bel7405, IC<sub>50</sub> > 226 μmol/L, Vincristine, IC<sub>50</sub> = (31.4 ± 3.4) μmol/L). Source: GE BI TIAN MEN *Asparagus gobicus* (root). Ref: 4975.



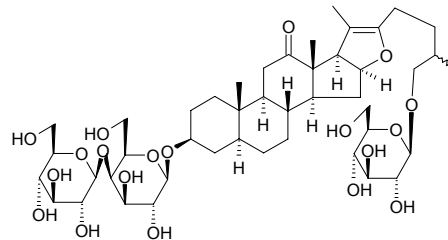
**8633 26-O-β-D-Glucopyranosyl(25R)-5α-furostane-12-one-3β,22α,26-triol-3-O-β-D-glucopyranosyl-(1→2)-β-D-galactopyranoside**

C<sub>45</sub>H<sub>74</sub>O<sub>20</sub> (935.08). White powder, [α]<sub>D</sub><sup>15</sup> = -15° (c = 0.2, pyridine). Pharm: Enhances sex drive; inhibits onset of senility; treatment of angiocardiopathy. Source: CI JI LI *Tribulus terrestris*. Ref: 688.



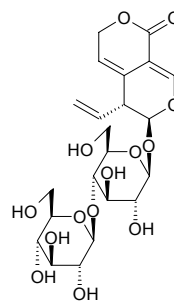
**8634 26-O-β-D-Glucopyranosyl(25R,S)-5α-furostane-12-one-20(22)-en-3β,26-diol-3-O-β-D-glucopyranosyl-(1→4)-β-D-galactopyranoside**

C<sub>45</sub>H<sub>72</sub>O<sub>19</sub> (917.06). White powder, [α]<sub>D</sub><sup>15</sup> = +5° (c = 0.2, pyridine). Pharm: Enhances sex drive; inhibits onset of senility; treatment of angiocardiopathy. Source: CI JI LI *Tribulus terrestris*. Ref: 688.



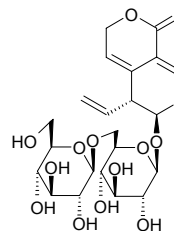
**8635 4'-O-β-D-Glucopyranosylgentiopicroside**

C<sub>22</sub>H<sub>30</sub>O<sub>14</sub> (518.48). Source: LONG DAN *Gentiana scabra* (dried rhizome and root). Ref: 3097.



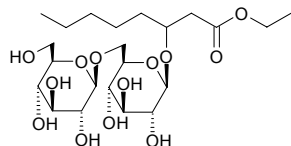
**8636 6'-O-β-D-Glucopyranosylgentiopicroside**

[115713-06-9] C<sub>22</sub>H<sub>30</sub>O<sub>14</sub> (518.48). Source: LONG DAN *Gentiana scabra* (dried rhizome and root)<sup>[3097]</sup>, QIN JIAO *Gentiana macrophylla*, RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 707, 2573, 3097.



**8637 3-O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside of ethyl 3-hydroxyoctanoate**

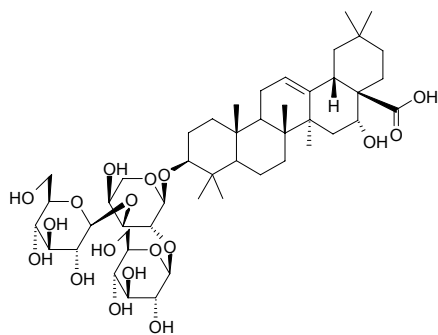
C<sub>22</sub>H<sub>40</sub>O<sub>13</sub> (512.56). Source: DENG LONG CAO *Physalis peruviana*. Ref: 1997.



**8638 3 $\beta$ -O-[ $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3)]-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl echinocystic acid**

C<sub>47</sub>H<sub>76</sub>O<sub>18</sub> (929.12). Amorphous powder,  $[\alpha]_D^{23} = +19.5^\circ$  ( $c = 0.94$ , MeOH).

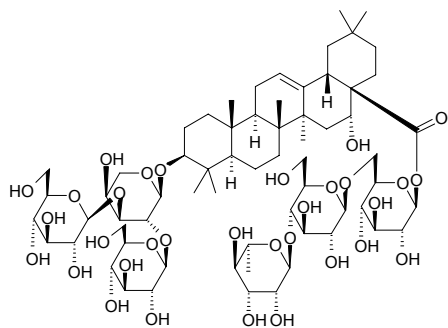
Source: *Dizygotheca kerchoveana* (stem and leaf of branch). Ref: 3885.



**8639 3-O-[ $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3)]-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl echinocystic acid 28-O-[ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl] ester**

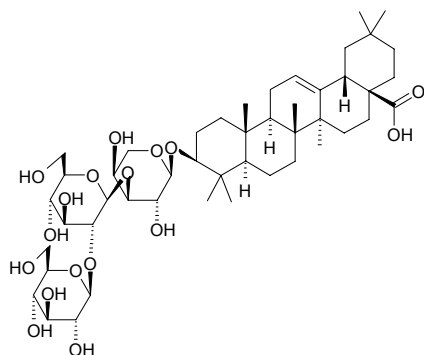
C<sub>65</sub>H<sub>106</sub>O<sub>32</sub> (1399.55). Amorphous powder,  $[\alpha]_D^{23} = -13.0^\circ$  ( $c = 0.94$ , MeOH).

Source: *Dizygotheca kerchoveana* (stem and leaf of branch). Ref: 3885.



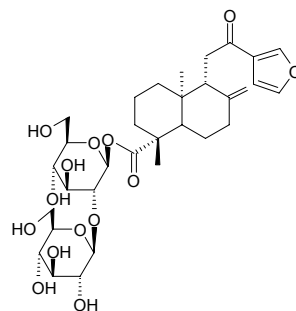
**8640 3 $\beta$ -[(O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3))- $\alpha$ -L-arabinopyranosyl]oxy]olean-12-en-28-oic acid**

C<sub>47</sub>H<sub>76</sub>O<sub>17</sub> (913.12). Source: SAN YE MU TONG *Akebia trifoliata* (stem). Ref: 4545.



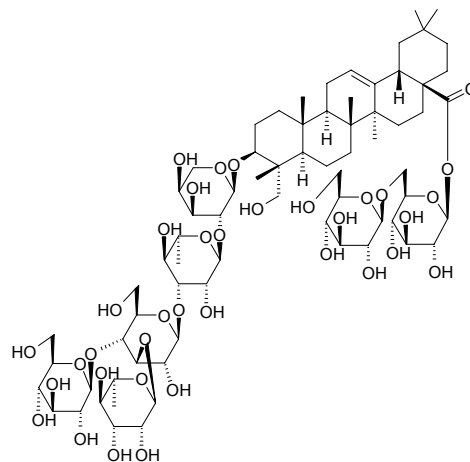
**8641  $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-15,16-epoxy-12-oxo-8(17),13(16)-14-*ent*-labdatrien-19-oate**

C<sub>32</sub>H<sub>46</sub>O<sub>14</sub> (654.72). Yellow gum,  $[\alpha]_D^{25} = -2.0^\circ$  ( $c = 0.25$ , CH<sub>3</sub>OH). Source: BI CHI YAN ZI CAI *Potamogeton pectinatus*. Ref: 3849.



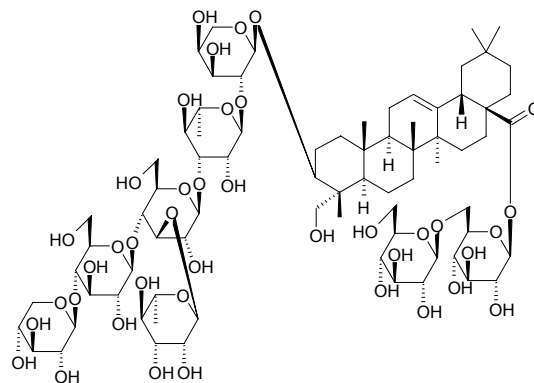
**8642 28-O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester of 3-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)] [ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -arabinopyranosyl-hederagenin**

C<sub>71</sub>H<sub>116</sub>O<sub>36</sub> (1545.69). White powder, mp 224–227°C,  $[\alpha]_D^{21} = -17.4^\circ$  ( $c = 0.25$ , MeOH). Source: CHUAN XU DUAN *Dipsacus asperoides*. Ref: 265.



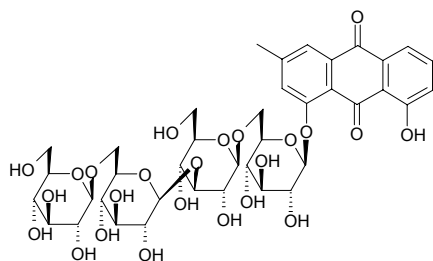
**8643 28-O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester of 3-O-[ $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)] [ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -arabinopyranosyl-hederagenin**

C<sub>76</sub>H<sub>124</sub>O<sub>40</sub> (1677.81). White powder, mp 236–240°C (methanol–acetic ester),  $[\alpha]_D^{21} = -21.8^\circ$  ( $c = 0.24$ , methanol). Source: CHUAN XU DUAN *Dipsacus asperoides*. Ref: 249.



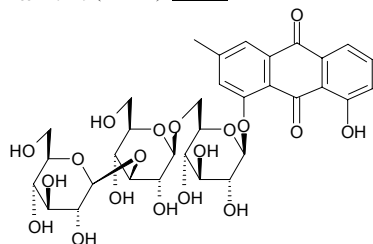
**8644** 1-[( $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)-O- $\beta$ -D-glucopyranosyl)oxy]-8-hydroxy-3-methyl-9,10-anthraquinone

C<sub>39</sub>H<sub>50</sub>O<sub>24</sub> (902.82). Source: JUE MING ZI *Cassia tora*. Ref: 2.



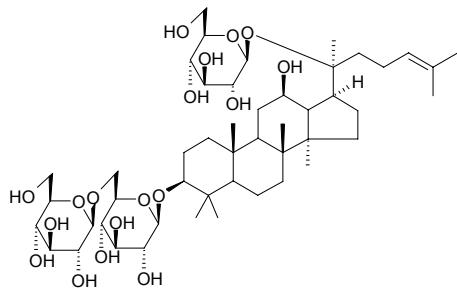
**8645** 1-[( $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)-O- $\beta$ -D-glucopyranosyl)oxy]-8-hydroxy-3-methyl-9,10-anthraquinone

C<sub>33</sub>H<sub>40</sub>O<sub>19</sub> (740.68). Source: JUE MING ZI *Cassia tora*. Ref: 2.



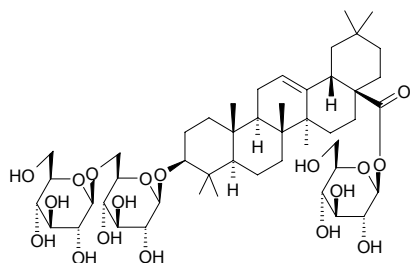
**8646** 3-O-[( $\beta$ -D-Glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl]-20-O- $\beta$ -D-glucopyranosyl-3 $\beta$ ,12 $\beta$ ,20(S)-trihydroxydammar-24-ene

C<sub>48</sub>H<sub>82</sub>O<sub>18</sub> (947.18). Colorless amorphous powder, mp 190~194°C, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +13.2 (c = 0.45, MeOH). Pharm: Inhibits zoospore motility (*Aphanomyces cochlioides*, a causative fungus of spinach root rot)<sup>[2387]</sup>. Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2387.



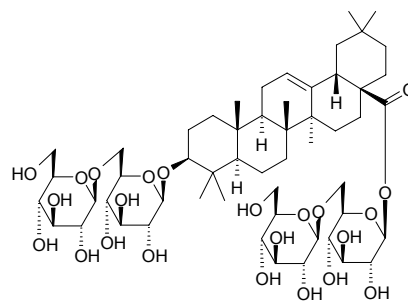
**8647** 3-O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl oleanolic acid 28-O- $\beta$ -D-glucopyranosyl ester

C<sub>48</sub>H<sub>78</sub>O<sub>18</sub> (943.15). Amorphous powder, mp 202~209°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -6.5° (c = 0.11, MeOH). Source: CHI GENG TENG *Gymnema sylvestri*. Ref: 766.



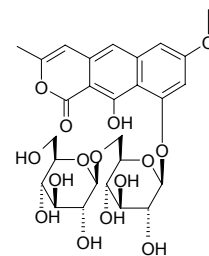
**8648** 3-O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl oleanolic acid 28- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester

C<sub>54</sub>H<sub>88</sub>O<sub>23</sub> (1105.29). Amorphous powder, mp 209~211°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -12.1° (c = 0.12, MeOH). Source: CHI GENG TENG *Gymnema sylvestri*. Ref: 766.



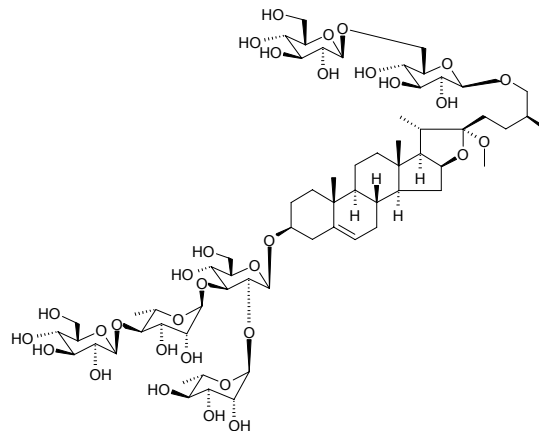
**8649** 9-[( $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)-O- $\beta$ -D-glucopyranosyl)oxy]-10-hydroxy-7-methoxy-3-methyl-1*H*-naphthol[2,3-*c*]pyran-1-one

Cassiaside C; Toralactone 9-gentiobioside [119170-52-4] C<sub>27</sub>H<sub>32</sub>O<sub>15</sub> (596.55). Source: DUN YE JUE MING *Cassia obtusifolia*, JUE MING ZI *Cassia tora*. Ref: 2, 2081.



**8650** (2*S*)-26-[(O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-22*a*-methoxyfurost-5-en-3 $\beta$ -yl O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -D-glucopyranoside

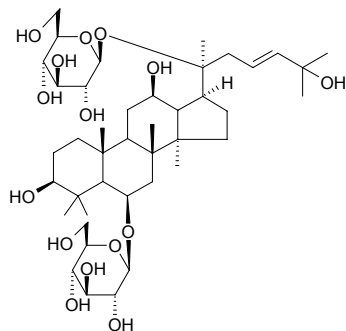
C<sub>64</sub>H<sub>106</sub>O<sub>32</sub> (1387.54). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -54.0° (c = 0.10, CHCl<sub>3</sub>: MeOH = 1:1). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.00090%dw). Ref: 4648.





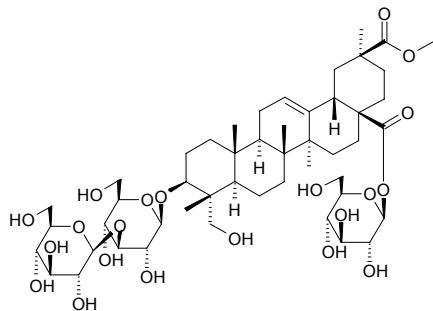
**8651 6-O-β-D-Glucopyranosyl-20-O-β-D-glucopyranosyl-3β,6α,12β,20(S),25-pentahydroxydammar-23-ene**

C<sub>42</sub>H<sub>72</sub>O<sub>15</sub> (817.03). Colorless amorphous powder, mp 208~212°C, [α]<sub>D</sub><sup>21</sup> = +31.2° (c = 0.25, MeOH). **Pharm:** Inhibits zoospore motility (*Aphanomyces cochlioides*, a causative fungus of spinach root rot). **Source:** SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2387.



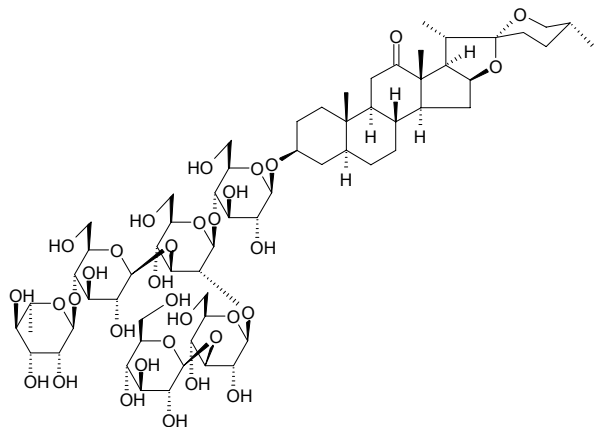
**8652 3-O-[β-D-Glucopyranosyl-(1→3)-β-D-glucopyranosyl] phytolaccagenic acid 28-O-β-D-glucopyranosyl ester**

C<sub>49</sub>H<sub>78</sub>O<sub>21</sub> (1003.16). mp 214~218°C, [α]<sub>D</sub><sup>25</sup> = +48.3° (c = 0.65, MeOH). **Source:** CANG BAI CHENG GOU FENG *Diploclisia glaucescens*. **Ref:** 2054.



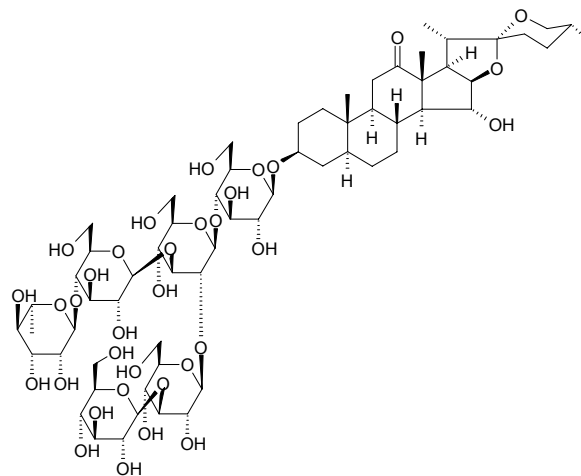
**8653 (25R)-3β-[(O-β-D-Glucopyranosyl-(1→3)-O-β-D-glucopyranosyl-(1→2)-O-[O-α-L-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→3)]-O-β-D-glucopyranosyl-(1→4)-β-D-galactopyranosyl)oxy]-5α-spirostan-12-one**

C<sub>63</sub>H<sub>102</sub>O<sub>33</sub> (1387.50). **Pharm:** Cytotoxic (hmn oral squamous cell HSC-2, LD<sub>50</sub> = 2.2μg/mL; normal hmn gingival fibroblast HGF cell, LD<sub>50</sub> = 2.4μg/mL). **Source:** *Camassia leichtlinii* (bulb). **Ref:** 3535.



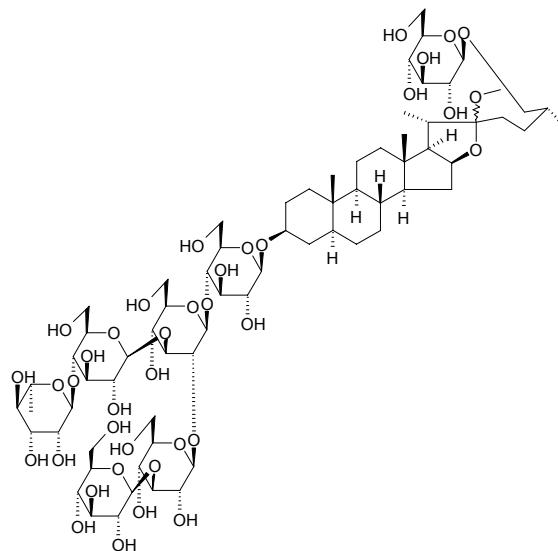
**8654 (25R)-3β-[(O-β-D-Glucopyranosyl-(1→3)-O-β-D-glucopyranosyl-(1→2)-O-[O-α-L-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→3)]-O-β-D-glucopyranosyl-(1→4)-β-D-galactopyranosyl)oxy]-15α-hydroxy-5α-spirostan-12-one**

C<sub>63</sub>H<sub>102</sub>O<sub>34</sub> (1403.49). Amorphous solid, [α]<sub>D</sub><sup>25</sup> = -34.0° (c = 0.10, MeOH). **Pharm:** Cytotoxic (hmn oral squamous cell HSC-2, LD<sub>50</sub> = 35μg/mL; normal hmn gingival fibroblast HGF cell, LD<sub>50</sub> = 34μg/mL). **Source:** *Camassia leichtlinii* (bulb). **Ref:** 3535.



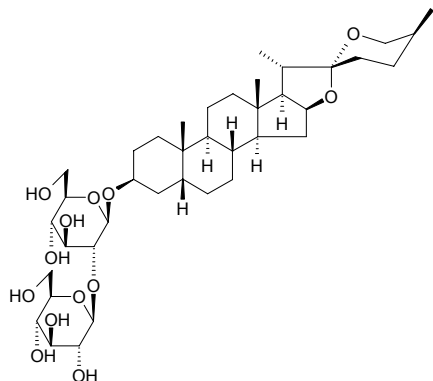
**8655 (25R)-3β-[(O-β-D-Glucopyranosyl-(1→3)-O-β-D-glucopyranosyl-(1→2)-O-[O-α-L-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→3)]-O-β-D-glucopyranosyl-(1→4)-β-D-galactopyranosyl)oxy]-22ξ-methoxy-5α-furostan-26-yl β-D-glucopyranoside**

C<sub>70</sub>H<sub>118</sub>O<sub>38</sub> (1567.70). Amorphous solid, [α]<sub>D</sub><sup>25</sup> = -44.0° (c = 0.10, MeOH). **Pharm:** Cytotoxic (hmn oral squamous cell HSC-2, LD<sub>50</sub> = 4.7μg/mL; normal hmn gingival fibroblast HGF cell, LD<sub>50</sub> = 34μg/mL). **Source:** *Camassia leichtlinii* (bulb). **Ref:** 3535.



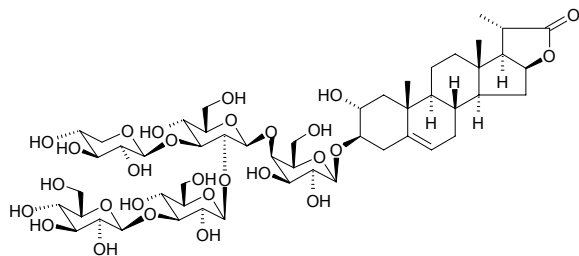
**8656 3-O- $\beta$ -D-Glucopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl]-(25S)-5 $\beta$ -spirostan-3 $\beta$ -ol**

C<sub>39</sub>H<sub>64</sub>O<sub>13</sub> (740.94).  $[\alpha]_D^{21} = -60.9^\circ$  ( $c = 1.00$ , C<sub>5</sub>H<sub>5</sub>N). **Pharm:** Cytotoxic (*in vitro*, HO-8910, IC<sub>50</sub> = (5.8 $\pm$ 0.4) $\mu$ mol/L, Vincristine, IC<sub>50</sub> = (25.1 $\pm$ 1.9) $\mu$ mol/L; Bel7405, IC<sub>50</sub> = (5.9 $\pm$ 0.4) $\mu$ mol/L, Vincristine, IC<sub>50</sub> = (31.4 $\pm$ 3.4) $\mu$ mol/L). **Source:** GE BI TIAN MEN *Asparagus gobicus* (root). **Ref:** 4975.



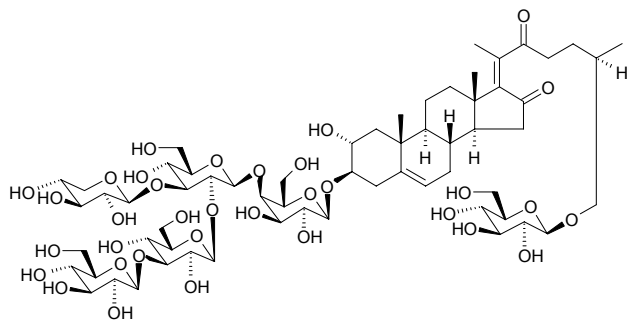
**8657 3 $\beta$ -[(O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranosyl)-oxy]-2 $\alpha$ ,16 $\beta$ -dihydroxypregn-5-ene-20-carboxylic acid  $\gamma$ -lactone**

C<sub>51</sub>H<sub>80</sub>O<sub>28</sub> (1141.19). Amorphous powder,  $[\alpha]_D^{28} = -54.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HSC-2, LD<sub>50</sub> > 300 $\mu$ g/mL; control Doxorubicin, LD<sub>50</sub> = 2.5 $\mu$ g/mL). **Source:** YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0014%fw). **Ref:** 4667.



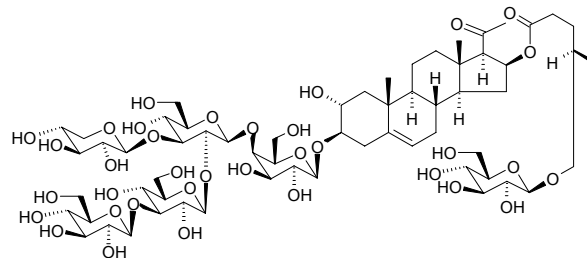
**8658 (25R)-3 $\beta$ -[(O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranosyl)-oxy]-26-[( $\beta$ -D-glucopyranosyl)oxy]-2 $\alpha$ -hydroxycholesta-5,17-diene-16,22-dione**

C<sub>62</sub>H<sub>98</sub>O<sub>34</sub> (1387.45). Amorphous powder,  $[\alpha]_D^{29} = -76.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HSC-2, LD<sub>50</sub> = 281 $\mu$ g/mL; control Doxorubicin, LD<sub>50</sub> = 2.5 $\mu$ g/mL). **Source:** YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0088%fw). **Ref:** 4667.



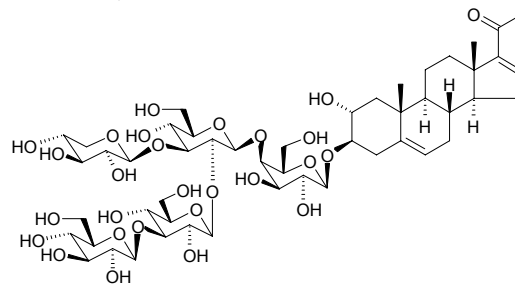
**8659 3 $\beta$ -[(O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranosyl)oxy]-16 $\beta$ -[(4R)-5-( $\beta$ -D-glucopyranosyloxy)-4-methyl-1-oxopentyl]oxy]-2 $\alpha$ -hydroxypregn-5-en-20-one**

C<sub>62</sub>H<sub>100</sub>O<sub>35</sub> (1405.47). Amorphous powder,  $[\alpha]_D^{29} = -50.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HSC-2, LD<sub>50</sub> > 300 $\mu$ g/mL; control Doxorubicin, LD<sub>50</sub> = 2.5 $\mu$ g/mL). **Source:** YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0026%fw). **Ref:** 4667.



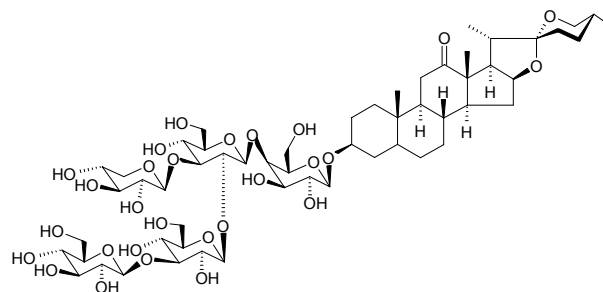
**8660 3 $\beta$ -[(O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranosyl)oxy]-2 $\alpha$ -hydroxypregna-5,16-dien-20-one**

C<sub>50</sub>H<sub>78</sub>O<sub>27</sub> (1111.16). Amorphous powder,  $[\alpha]_D^{28} = -42.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HSC-2, LD<sub>50</sub> = 192 $\mu$ g/mL; control Doxorubicin, LD<sub>50</sub> = 2.5 $\mu$ g/mL). **Source:** YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0082%fw). **Ref:** 4667.



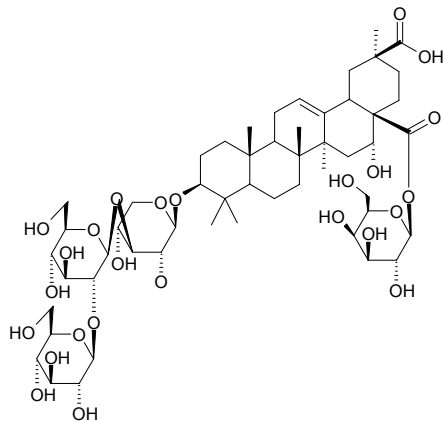
**8661 (25R)-3 $\beta$ -[(O- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranosyl)oxy]-5 $\alpha$ -spirostan-12-one**

C<sub>56</sub>H<sub>90</sub>O<sub>28</sub> (1211.32). Amorphous solid,  $[\alpha]_D^{26} = -30.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HL-60, IC<sub>50</sub> = 5.9 $\mu$ g/mL; HSC-2, IC<sub>50</sub> = 1.5 $\mu$ g/mL; control Etoposide: HL-60, IC<sub>50</sub> = 0.3 $\mu$ g/mL; HSC-2, IC<sub>50</sub> = 24.4 $\mu$ g/mL). **Source:** WAN XIANG YU *Polianthes tuberosa* (underground part; yield = 0.0065%dw). **Ref:** 4651.



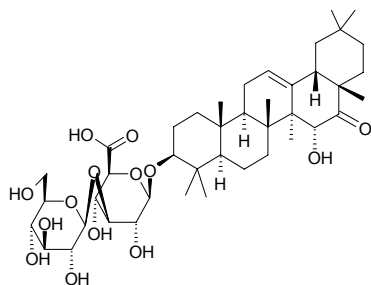
**8662 3β-O-(β-Glucopyranosyl-(1→2)-β-glucopyranosyl(1→3)-β-xylopyranosyl)-16α-hydroxyolean-12-en-28-O-(β-galactopyranosyl) ester-30-oic acid**

C<sub>53</sub>H<sub>84</sub>O<sub>25</sub> (1121.25). White amorphous powder,  $[\alpha]_D^{25} = +18^\circ$  ( $c = 1$ , MeOH). **Pharm:** Antiproliferative (*in vitro*, J774 cell line, IC<sub>50</sub> = 0.20 μmol/L, control 6-Mercaptopurine, IC<sub>50</sub> = 0.003 μmol/L; HEK-293, IC<sub>50</sub> = 0.15 μmol/L, 6-Mercaptopurine, IC<sub>50</sub> = 0.007 μmol/L; WEHI-164, IC<sub>50</sub> = 0.24 μmol/L, 6-Mercaptopurine, IC<sub>50</sub> = 0.017 μmol/L). **Source:** *Schefflera faguetai*. **Ref:** 5436.



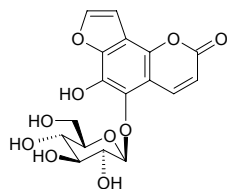
**8663 3-O-[β-D-Glucopyranosyl-(1→3)-O-β-D-glucuronopyranosyl]-15-α-hydroxyolean-12-en-16-one**

C<sub>42</sub>H<sub>66</sub>O<sub>14</sub> (794.99). White amorphous powder, mp 248–250°C. **Source:** YUN NAN GE TENG *Pueraria peduncularis*. **Ref:** 853.



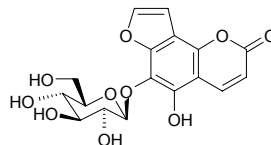
**8664 5-O-β-D-Glucopyranosyl-6-hydroxyangelicin**

C<sub>17</sub>H<sub>16</sub>O<sub>10</sub> (380.31). Light yellow amorphous powder,  $[\alpha]_D^{20} = +4.1^\circ$  ( $c = 0.15$ , pyridine). **Pharm:** Anti-inflammatory (antiproliferation, hmn mononuclear cells involving T lymphocytes, B lymphocytes, and macrophages isolated from peripheral blood, IC<sub>50</sub> = 33.4 μmol/L; control Cyclosporine, IC<sub>50</sub> = 12 nmol/L). **Source:** LAN YU LUO YE RONG *Ficus ruficaulis* var. *antaoensis* (leaf: yield = 0.00454%fw). **Ref:** 4794.



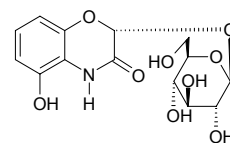
**8665 6-O-β-D-Glucopyranosyl-5-hydroxyangelicin**

C<sub>17</sub>H<sub>16</sub>O<sub>10</sub> (380.31). Light yellow amorphous powder,  $[\alpha]_D^{20} = -40.0^\circ$  ( $c = 0.04$ , pyridine). **Pharm:** Antiproliferation inactive (hmn mononuclear cells involving T lymphocytes, B lymphocytes, and macrophages isolated from peripheral blood, 100 μmol/L; control Cyclosporine, IC<sub>50</sub> = 12 nmol/L). **Source:** LAN YU LUO YE RONG *Ficus ruficaulis* var. *antaoensis* (leaf: yield = 0.0012%fw). **Ref:** 4794.



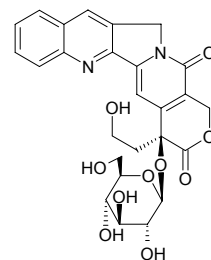
**8666 (2R)-2-O-β-D-Glucopyranosyl-5-hydroxy-2H-1,4-benzoxazin-3(4H)-one**

C<sub>14</sub>H<sub>17</sub>NO<sub>9</sub> (343.29). Amorphous powder,  $[\alpha]_D^{26} = +95.0^\circ$  ( $c = 0.40$ , DMSO). **Source:** LAO SHU LE *Acanthus ilicifolius* (aerial parts). **Ref:** 5204.



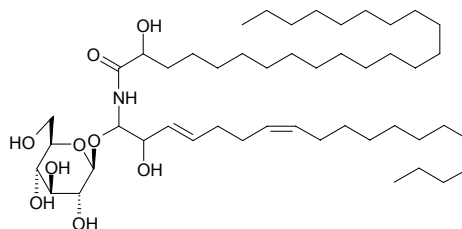
**8667 20-O-β-Glucopyranosyl 18-hydroxycamptothecin**

C<sub>26</sub>H<sub>26</sub>N<sub>2</sub>O<sub>10</sub> (526.50). **Source:** XI SHU *Camptotheca acuminata*. **Ref:** 4097.



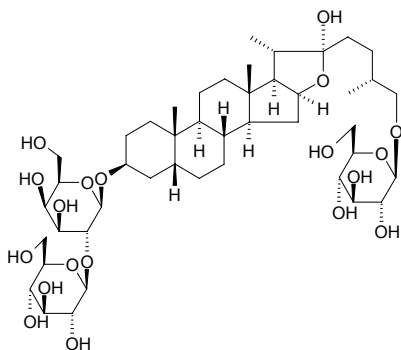
**8668 1-O-β-D-Glucopyranosyl-(2S,3R,4E,8Z)-2-N-(2'-hydroxydocosanyl) eicosasphinga-4,8-dienine**

C<sub>48</sub>H<sub>91</sub>NO<sub>9</sub> (826.26). White powder. **Source:** XIAO YE GUAN ZHONG *Matteuccia struthiopteris* (rhizome). **Ref:** 4862.



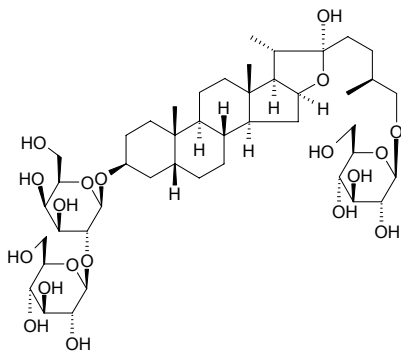
**8669 (25R)-26-O-β-D-Glucopyranosyl-22-hydroxy-5β-furostane-3β,26-diol 3-O-β-D-glucopyranosyl-(1→2)-O-β-D-galactopyranoside**

C<sub>45</sub>H<sub>76</sub>O<sub>19</sub> (921.10). White powder, mp 194–196°C [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –31.5° (c = 0.001, H<sub>2</sub>O). **Pharm:** Cytotoxic (SF268 and NCI-H460 cancer cells, EC = 25 μg/mL; HepG2 cells, inactive). **Source:** XIE BAI *Allium macrostemon*. **Ref:** 4897.



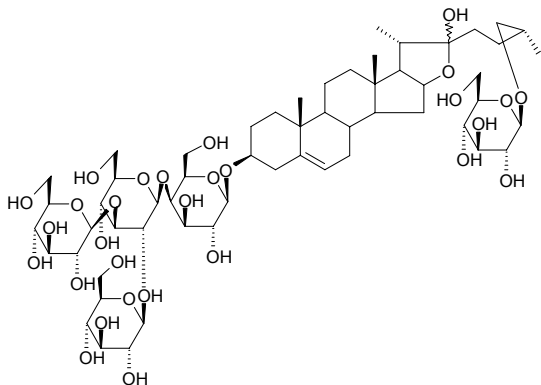
**8670 (25S)-26-O-β-D-Glucopyranosyl-22-hydroxy-5β-furostane-3β,26-diol 3-O-β-D-glucopyranosyl-(1→2)-O-β-D-galactopyranoside**

C<sub>45</sub>H<sub>76</sub>O<sub>19</sub> (921.10). **Pharm:** Cytotoxic (SF268 and NCI-H460 cancer cells, EC = 25 μg/mL; HepG2 cells, inactive). **Source:** ZHI MU *Anemarrhena asphodeloides*. **Ref:** 2.



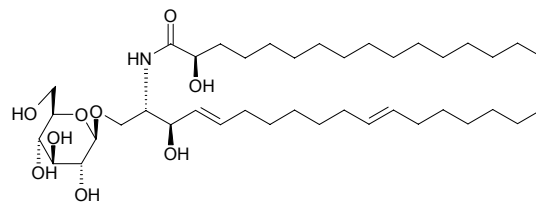
**8671 (25R)-26-O-β-D-Glucopyranosyl-22-hydroxy-furost-5(6)-ene-3β,26-diol-3-O-β-D-glucopyranosyl-(1→2)-[β-D-glucopyranosyl(1→3)]-β-D-glucopyranosyl-(1→4)-β-D-galactopyranoside**

C<sub>57</sub>H<sub>94</sub>O<sub>29</sub> (1243.37). White powder, mp 223–225°C [ $\alpha$ ]<sub>D</sub><sup>27</sup> = –32.7° (c = 0.098, H<sub>2</sub>O). **Pharm:** Cytotoxic (SF268 cells, EC = 25 μg/mL, NCI-H460 cells, EC = 25 μg/mL, HepG2 cells, inactive). **Source:** XIE BAI *Allium macrostemon*. **Ref:** 4897.



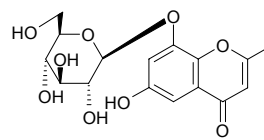
**8672 1-O-β-D-Glucopyranosyl-(2S,3R,4E,11E)-2-(2'R-hydroxyhexadecenoynlamino)-4,11-octadecadiene-1,3-diol**

C<sub>40</sub>H<sub>75</sub>NO<sub>9</sub> (714.05). White amorphous powder, mp 136–138°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –6.0° (c = 0.5, MeOH). **Pharm:** Antibacterial (*Bacillus subtilis*, MIC = 20 μg/mL, control Penicillin G, MIC = 0.80 μg/mL; *Staphylococcus aureus*, MIC = 50 μg/mL, control Penicillin G, MIC = 0.34 μg/mL)<sup>[3472]</sup>; antifungal (*Aspergillus niger*, MIC = 30 μg/mL, control Ketoconazole, MIC = 0.90 μg/mL; *Candida albicans*, MIC = 10 μg/mL, control Ketoconazole, MIC = 0.65 μg/mL). **Source:** BAN XIA *Pinellia ternata*. **Ref:** 3472.



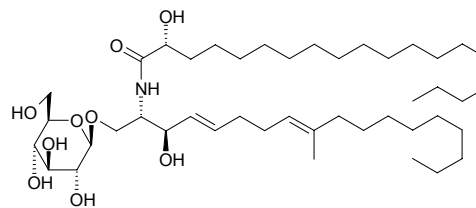
**8673 8-O-β-D-Glucopyranosyl-6-hydroxy-2-methyl-4H-1-benzopyran-4-one**

C<sub>16</sub>H<sub>18</sub>O<sub>9</sub> (354.32). White powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = –75.1° (c = 0.056, MeOH). **Pharm:** Tyrosinase inhibitor (IC<sub>50</sub> = (256.97±0.96) μmol/L, control Kojic acid, IC<sub>50</sub> = (16.67±0.52) μmol/L, L-Mimosine, IC<sub>50</sub> = (3.68±0.02) μmol/L). **Source:** A FU HAN DU JUAN HUA *Rhododendron collettianum*. **Ref:** 2544.



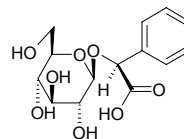
**8674 1-O-(β-D-Glucopyranosyl)-(2S,3R,4E,8E)-2-[(2'R)-2'-hydroxy-nonadecanoylamino]-9-methyl-4,8-octadecadiene-1,3-diol**

C<sub>44</sub>H<sub>83</sub>NO<sub>9</sub> (770.15). Colorless solid, mp 218–220°C, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = –13.2° (c = 0.05, CHCl<sub>3</sub>). **Source:** *Lobophytum* sp. **Ref:** 4432.



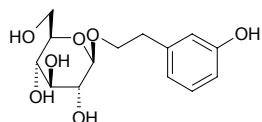
**8675 (2S)-2-O-β-D-Glucopyranosyl-2-hydroxyphenylacetic acid**

C<sub>14</sub>H<sub>18</sub>O<sub>8</sub> (314.29). Colorless oil, [ $\alpha$ ]<sub>D</sub> = +6°. **Pharm:** Plant growth stimulatory or inhibitory activity (radicle length: *Lactuca sativa*, 1 μmol/L, StRt or InRt < 10%, 10 μmol/L, StRt or InRt < 10%, 100 μmol/L, StRt or InRt < 10%, 1 mmol/L, StRt or InRt < 10%; *Raphanus sativus*, 1 μmol/L, InRt = (10–30)%, 10 μmol/L, InRt = (10–30)%, 100 μmol/L, InRt = (10–30)%, 1 mmol/L, InRt = (10–30)%; *Allium cepa*, 1 μmol/L, InRt = (10–30)%, 10 μmol/L, InRt = (10–30)%, 100 μmol/L, InRt = (10–30)%, 1 mmol/L, InRt = (31–60)%). **Source:** XI YANG JIE GU MU *Sambucus nigra*. **Ref:** 5217.

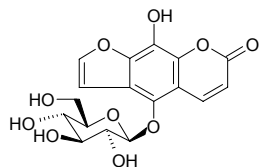


**8676 1-*O*- $\beta$ -D-Glucopyranosyl-2-(3-hydroxyphenyl)-ethanol**

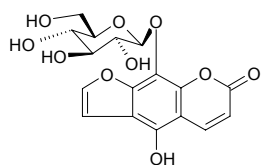
$C_{14}H_{20}O_7$  (300.31). Colorless oil. **Pharm:** Plant growth stimulatory or inhibitory activity (radicle length: *Lactuca sativa*, 1  $\mu$ mol/L, StRt or InRt < 10%, 10  $\mu$ mol/L, StRt or InRt < 10%, 100  $\mu$ mol/L, StRt = (31–60)%, 1 mmol/L, StRt = (31–60)%); *Raphanus sativus*, 1  $\mu$ mol/L, StRt or InRt < 10%, 10  $\mu$ mol/L, InRt = (10–30)%, 100  $\mu$ mol/L, InRt = (10–30)%, 1 mmol/L, InRt = (10–30)%; *Allium cepa*, 1  $\mu$ mol/L, InRt = (10–30)%, 10  $\mu$ mol/L, StRt or InRt < 10%, 100  $\mu$ mol/L, InRt = (10–30)%, 1 mmol/L, InRt = (10–30)%). **Source:** XI YANG JIE GU MU *Sambucus nigra*. **Ref:** 5217.

**8677 5-*O*- $\beta$ -D-Glucopyranosyl-8-hydroxy-psoralen**

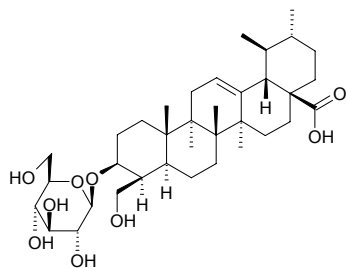
$C_{17}H_{16}O_{10}$  (380.31). **Pharm:** Antiproliferation inactive (hmn mononuclear cells involving T lymphocytes, B lymphocytes, and macrophages isolated from peripheral blood, 100  $\mu$ mol/L; control Cyclosporine,  $IC_{50}$  = 12 nmol/L). **Source:** LAN YU LUO YE RONG *Ficus ruficaulis* var. *antaoensis* (leaf: yield = 0.00065%fw). **Ref:** 4794.

**8678 8-*O*- $\beta$ -D-Glucopyranosyl-5-hydroxy-psoralen**

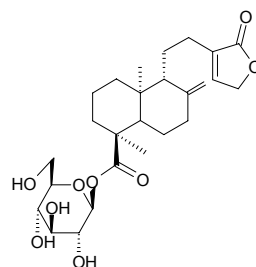
$C_{17}H_{16}O_{10}$  (380.31). Light yellow amorphous powder,  $[\alpha]_D^{20}$  = -28.8° ( $c$  = 0.07, pyridine). **Pharm:** Antiproliferation inactive (hmn mononuclear cells involving T lymphocytes, B lymphocytes, and macrophages isolated from peripheral blood, 100  $\mu$ mol/L; control Cyclosporine,  $IC_{50}$  = 12 nmol/L). **Source:** LAN YU LUO YE RONG *Ficus ruficaulis* var. *antaoensis* (leaf: yield = 0.00075%fw). **Ref:** 4794.

**8679 3-*O*- $\beta$ -D-Glucopyranosyl-23-hydroxyursolic acid**

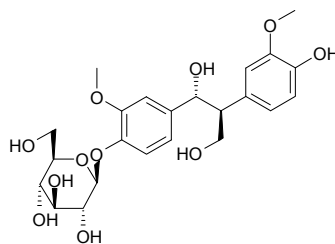
$C_{36}H_{58}O_9$  (634.86). White amorphous powder (MeOH/CH<sub>2</sub>Cl<sub>2</sub>), 280–281°C,  $[\alpha]_D^{31}$  = +43.4° ( $c$  = 0.046, MeOH). **Pharm:** Anti-inflammatory (*in vitro*, murine macrophage RAW264.7 Cells, inhibits LPS-induced NO and PGE<sub>2</sub> release). **Source:** *Cussonia bancoensis*. **Ref:** 5016.

**8680  $\beta$ -D-Glucopyranosyl-8(17),13-*ent*-labdadien-16,15-olide-18-oate**

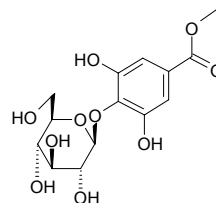
$C_{26}H_{38}O_9$  (494.59). Yellow gum,  $[\alpha]_D^{25}$  = -18.1° ( $c$  = 0.73, CH<sub>3</sub>OH). **Source:** GUANG YE YAN ZI CAI *Potamogeton lucens* (whole herb). **Ref:** 3795.

**8681 (1*S*,2*R*)-1-(4'-*O*- $\beta$ -D-Glucopyranosyl-3'-methoxyphenyl)-2-(4''-hydroxy-3''-methoxyphenyl)-1,3-propanediol**

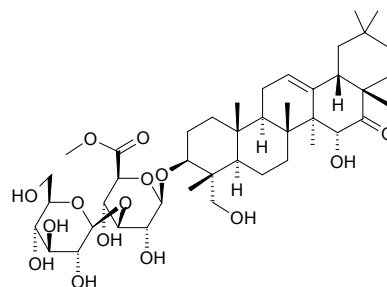
$C_{23}H_{30}O_{11}$  (482.49). White powder, mp 135–137°C,  $[\alpha]_D^{25}$  = +24.6° ( $c$  = 0.11, MeOH). **Source:** SHAN FAN GEN *Symplocos caudata*. **Ref:** 2535.

**8682 4-*O*- $\beta$ -D-Glucopyranosyl methyl gallate**

$C_{14}H_{18}O_{10}$  (346.29). Yellowish powder, mp 169–170°C. **Source:** JUAN MAO QIANG WEI *Rosa sericea*. **Ref:** 676.

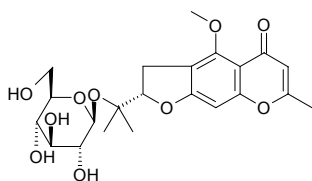
**8683 3-*O*-[ $\beta$ -D-Glucopyranosyl (1 $\rightarrow$ 3)- $\beta$ -D-6-*O*-methyl-glucoronopyranosyl]-3 $\beta$ ,15 $\alpha$ ,23-trihydroxy-olean-12-en-16-one**

$C_{43}H_{68}O_{15}$  (825.01). White powder, mp 207–209°C,  $[\alpha]_D^{20}$  = -9.5° ( $c$  = 0.084, MeOH). **Pharm:** Antifungal (*Aspergillus niger*). **Source:** YUN NAN GE TENG *Pueraria peduncularis*. **Ref:** 2159.

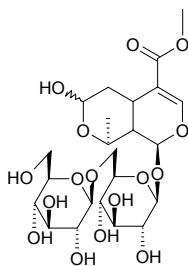


**8684 4'-O-β-Glucopyranosyl-5-O-methylvisamminol**

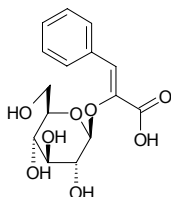
C<sub>22</sub>H<sub>28</sub>O<sub>10</sub> (452.46). Source: FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*]. Ref: 2.

**8685 6'-O-β-D-Glucopyranosylmorroneiside**

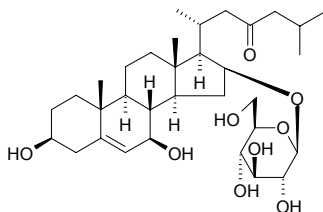
C<sub>23</sub>H<sub>35</sub>O<sub>16</sub> (568.53). Amorphous powder,  $[\alpha]_D^{27} = -71.4^\circ$  ( $c = 0.56$ , MeOH). Source: RI BEN SHUANG HU DIE *Tripterospermum japonicum*. Ref: 3533.

**8686 (Z)-8-β-D-Glucopyranosyloxycinnamic acid**

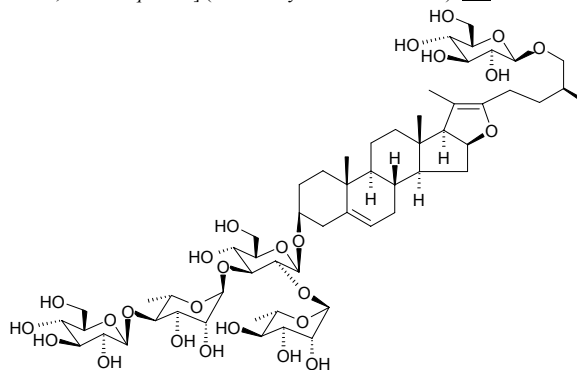
C<sub>15</sub>H<sub>18</sub>O<sub>8</sub> (326.31). Source: LV DOU *Onobrychis viciifolia* (leaf). Ref: 5084.

**8687 16β-[(β-D-Glucopyranosyl)-oxy]-3β,7β-dihydroxycholest-5-en-23-one**

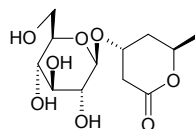
C<sub>33</sub>H<sub>54</sub>O<sub>9</sub> (594.79). Pharm: Cytotoxic (hmn oral squamous cell HSC-2, LD<sub>50</sub> = 68 μg/mL; normal hmn gingival fibroblast HGF cell, LD<sub>50</sub> = 83 μg/mL). Source: *Camassia leichtlinii* (bulb). Ref: 3535.

**8688 (25S)-26-[(β-D-Glucopyranosyl)oxy]furosta-5,20(22)-dien-3β-yl O-α-L-rhamnopyranosyl-(1→2)-O-[O-β-D-glucopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→3)]-β-D-glucopyranoside**

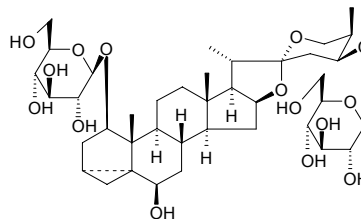
C<sub>57</sub>H<sub>92</sub>O<sub>26</sub> (1193.35). Amorphous solid,  $[\alpha]_D^{25} = -60.0^\circ$  ( $c = 0.10$ , CHCl<sub>3</sub>:MeOH = 1:1). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.0018% dw). Ref: 4648.

**8689 (3R,5R)-3-(β-D-Glucopyranosyloxy)-5-hexanolide**

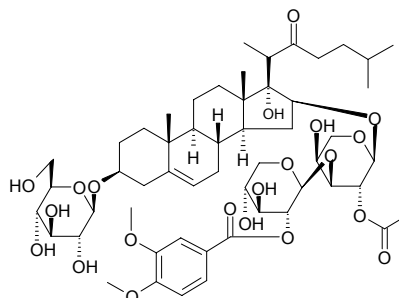
C<sub>12</sub>H<sub>20</sub>O<sub>8</sub> (292.29). Oil,  $[\alpha]_D^{22} = -21.8^\circ$  ( $c = 1.62$ , MeOH). Source: MO JUE *Hymenophyllum barbatum*. Ref: 4151.

**8690 (24S,25R)-1β-[(β-D-Glucopyranosyl)oxy]-6β-hydroxy-3α,5α-cyclospirostan-24-yl β-D-glucopyranoside**

C<sub>30</sub>H<sub>62</sub>O<sub>15</sub> (770.92). Amorphous solid,  $[\alpha]_D^{26} = -42.0^\circ$  ( $c = 0.10$ , MeOH). Source: DUO ZHI LONG XUE SHU *Dracaena surculosa* (whole herb). Ref: 4216.

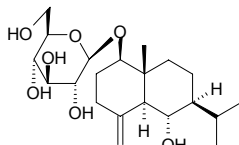
**8691 3β-[(β-D-Glucopyranosyl)oxy]-17α-hydroxy-16β-[(O-(2-O-3,4-dimethoxybenzoyl)-β-D-xylopyranosyl)-(1→2)-2-O-acetyl-α-L-arabinopyranosyl)oxy]cholest-5-en-22-one**

C<sub>54</sub>H<sub>80</sub>O<sub>21</sub> (1065.23). Amorphous solid,  $[\alpha]_D^{25} = -50.0^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (HL-60 cells, IC<sub>50</sub> = 0.00048 μmol/L, control Etoposide, IC<sub>50</sub> = 0.025 μmol/L). Source: XIA FENG XIN ZI *Galtonia candicans* (bulb). Ref: 4116.

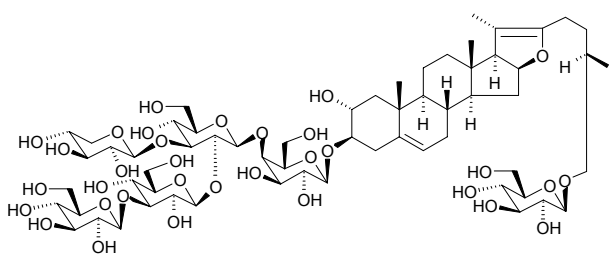


**8692 1 $\beta$ -D-Glucopyranosyloxy-6 $\alpha$ -hydroxyeudesman-4(15)-ene**

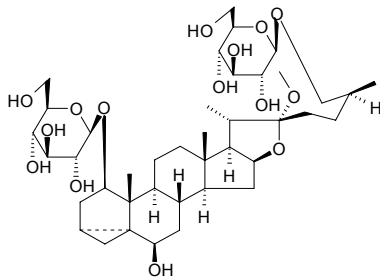
C<sub>21</sub>H<sub>36</sub>O<sub>7</sub> (400.52). Colorless oil,  $[\alpha]_D^{17} = -14^\circ$  ( $c = 1.90$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (inhibits growth of Bel7402 cell, 0.0001mol/L, InRt = 30.1%, control Etoposide, InRt = 96.0%). **Source:** YI NIAN PENG *Erigeron annuus* (aerial parts). **Ref:** 5073.

**8693 (25R)-26-[( $\beta$ -D-Glucopyranosyl)oxy]-2 $\alpha$ -hydroxyfurosta-5,20(22)-dien-3 $\beta$ -yl O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranoside**

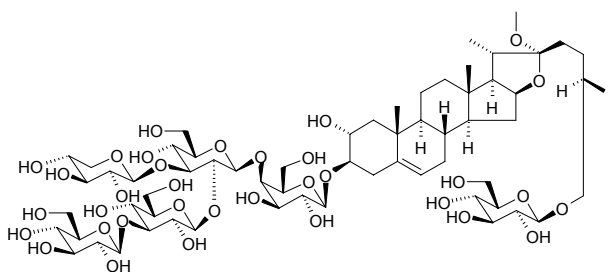
C<sub>62</sub>H<sub>100</sub>O<sub>33</sub> (1373.47). Amorphous powder,  $[\alpha]_D^{28} = -46.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HSC-2, LD<sub>50</sub> > 300 $\mu$ g/mL; control Doxorubicin, LD<sub>50</sub> = 2.5 $\mu$ g/mL). **Source:** YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0033%fw). **Ref:** 4667.

**8694 (25S)-1 $\beta$ -[( $\beta$ -D-Glucopyranosyl)oxy]-6 $\beta$ -hydroxy-22 $\alpha$ -methoxy-3 $\alpha$ ,5 $\alpha$ -cyclofurostan-26-yl  $\beta$ -D-glucopyranoside**

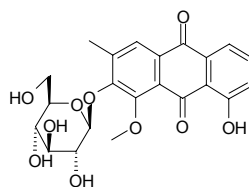
C<sub>40</sub>H<sub>66</sub>O<sub>15</sub> (786.96). Amorphous solid,  $[\alpha]_D^{26} = -42.0^\circ$  ( $c = 0.10$ , MeOH). **Source:** DUO ZHI LONG XUE SHU *Dracaena surculosa* (whole herb). **Ref:** 4216.

**8695 (25R)-26-[( $\beta$ -D-Glucopyranosyl)oxy]-2 $\alpha$ -hydroxy-22 $\alpha$ -methoxyfurost-5-en-3 $\beta$ -yl-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranoside**

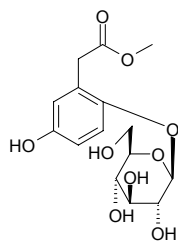
C<sub>63</sub>H<sub>104</sub>O<sub>34</sub> (1405.51). Amorphous powder,  $[\alpha]_D^{27} = -60.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HSC-2, LD<sub>50</sub> = 6.1 $\mu$ g/mL; control Doxorubicin, LD<sub>50</sub> = 2.5 $\mu$ g/mL). **Source:** YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0264%fw). **Ref:** 4667.

**8696 2-( $\beta$ -D-Glucopyranosyloxy)-8-hydroxy-1-methoxy-3-methyl-9,10-anthraquinone**

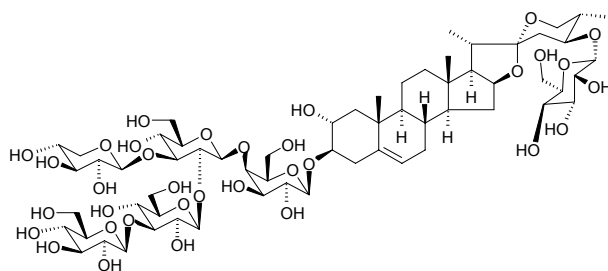
Obtusifolin-2-O- $\beta$ -D-glucoside C<sub>22</sub>H<sub>22</sub>O<sub>10</sub> (446.41). **Pharm:** Platelet aggregation inhibitor (rat). **Source:** DUN YE JUE MING *Cassia obtusifolia*, JUE MING ZI *Cassia tora*. **Ref:** 2, 658, 660.

**8697 2- $\beta$ -D-Glucopyranosyloxy-5-hydroxyphenylacetic acid methyl ester**

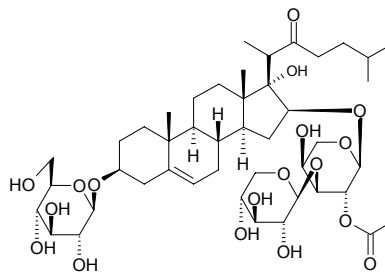
C<sub>15</sub>H<sub>20</sub>O<sub>9</sub> (344.32). mp 180–182°C,  $[\alpha]_D^{31} = -37.9^\circ$  ( $c = 0.3$ , MeOH). **Source:** RI BEN LU TI CAO *Pyrola japonica* (whole herb). **Ref:** 4294.

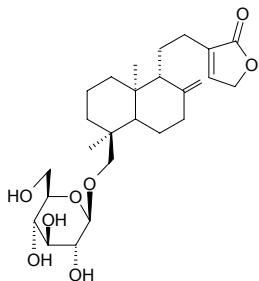
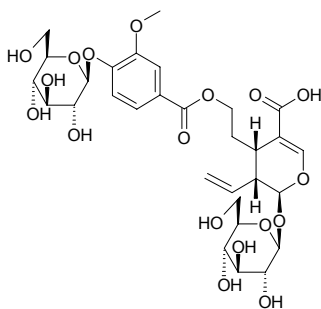
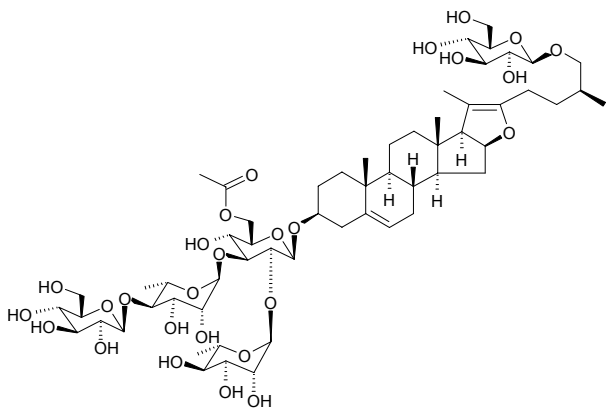
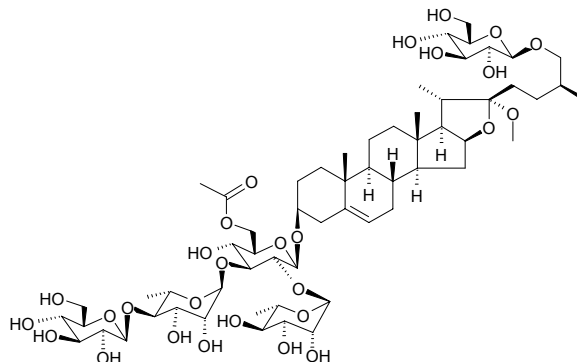
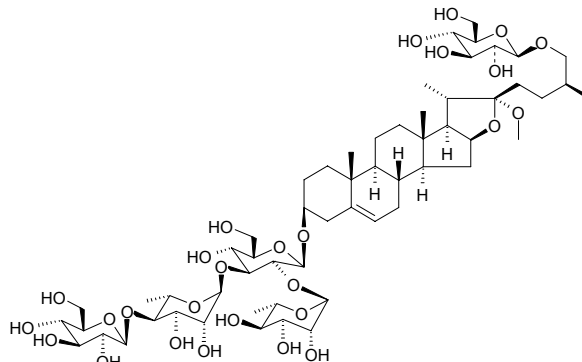
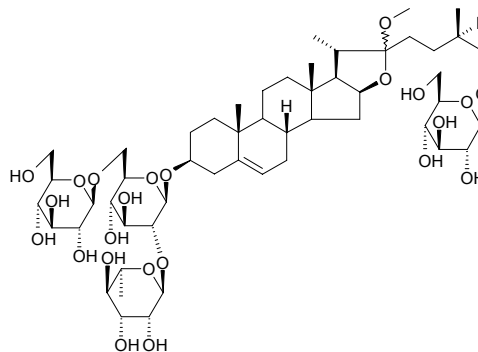
**8698 (24S,25S)-24-[( $\beta$ -D-Glucopyranosyl)oxy]-2 $\alpha$ -hydroxyspirost-5-en-3 $\beta$ -yl O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranoside**

C<sub>62</sub>H<sub>100</sub>O<sub>34</sub> (1389.47). Amorphous powder,  $[\alpha]_D^{28} = -48.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HSC-2, LD<sub>50</sub> > 300 $\mu$ g/mL; control Doxorubicin, LD<sub>50</sub> = 2.5 $\mu$ g/mL)<sup>[4667]</sup>. **Source:** YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0060%fw). **Ref:** 4667.

**8699 3 $\beta$ -[( $\beta$ -D-Glucopyranosyl)oxy]-17 $\alpha$ -hydroxy-16 $\beta$ -[(O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)-2-O-acetyl- $\alpha$ -L-arabinopyranosyl)oxy]cholest-5-en-22-one**

C<sub>45</sub>H<sub>72</sub>O<sub>18</sub> (901.06). Amorphous solid,  $[\alpha]_D^{25} = -50.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HL-60 cells, IC<sub>50</sub> = 0.0024 $\mu$ mol/L, control Etoposide, IC<sub>50</sub> = 0.025 $\mu$ mol/L). **Source:** XIA FENG XIN ZI *Galtonia candicans* (bulb). **Ref:** 4116.

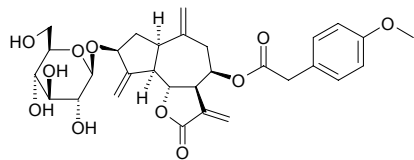


**8700 18-β-D-Glucopyranosyloxy-8(17),13-ent-labdadien-16,15-olide**C<sub>26</sub>H<sub>40</sub>O<sub>8</sub> (480.60). Yellow oil, [α]<sub>D</sub><sup>25</sup> = -37.8° (c = 0.87, CH<sub>3</sub>OH).Source: GUANG YE YAN ZI CAI *Potamogeton lucens* (whole herb). Ref: 3795.**8701 7-O-(4-β-D-Glucopyranosyloxy-3-methoxybenzoyl) seco-loganic acid**C<sub>30</sub>H<sub>40</sub>O<sub>18</sub> (688.64). Amorphous powder, [α]<sub>D</sub><sup>26</sup> = -96.4° (c = 0.149,MeOH). Source: JIN YIN HUA *Lonicera japonica* (stem and leaf). Ref: 4220.**8702 (25S)-26-[(β-D-Glucopyranosyl)oxy]-22α-methoxyfurosta-5,20(22)-dien-3β-yl O-α-L-rhamnopyranosyl-(1→2)-O-[O-β-D-glucopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→3)]-6-O-acetyl-β-D-glucopyranoside**C<sub>59</sub>H<sub>94</sub>O<sub>27</sub> (1235.39). Amorphous solid, [α]<sub>D</sub><sup>25</sup> = -42.0° (c = 0.10, CHCl<sub>3</sub>:MeOH = 1:1). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.00029%dw). Ref: 4648.**8703 (25S)-26-[(β-D-Glucopyranosyl)oxy]-22α-methoxyfurost-5-en-3β-yl O-α-L-rhamnopyranosyl-(1→2)-O-[O-β-D-glucopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→3)]-6-O-acetyl-β-D-glucopyranoside**C<sub>60</sub>H<sub>98</sub>O<sub>28</sub> (1267.43). Amorphous solid, [α]<sub>D</sub><sup>25</sup> = -106.0° (c = 0.10, CHCl<sub>3</sub>:MeOH = 1:1). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.0027%dw). Ref: 4648.**8704 (25S)-26-[(β-D-Glucopyranosyl)oxy]-22α-methoxyfurost-5-en-3β-yl O-α-L-rhamnopyranosyl-(1→2)-O-[O-β-D-glucopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→3)]-β-D-glucopyranoside**C<sub>58</sub>H<sub>96</sub>O<sub>27</sub> (1225.4). Amorphous solid, [α]<sub>D</sub><sup>25</sup> = -82.0° (c = 0.10, CHCl<sub>3</sub>:MeOH = 1:1). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.14%dw). Ref: 4648.**8705 (25R)-26-(β-D-Glucopyranosyloxy)-22-methoxyfurost-5-en-3β-yl O-α-L-rhamnopyranosyl-(1→2)-O-[β-D-glucopyranosyl-(1→6)]-β-D-glucopyranoside**[244160-64-3] C<sub>52</sub>H<sub>86</sub>O<sub>23</sub> (1079.25). Amorphous solid, [α]<sub>D</sub><sup>29</sup> = -69.0° (c = 0.29, MeOH). Source: QING LIANG BAI HE *Lilium candidum*. Ref: 2303.



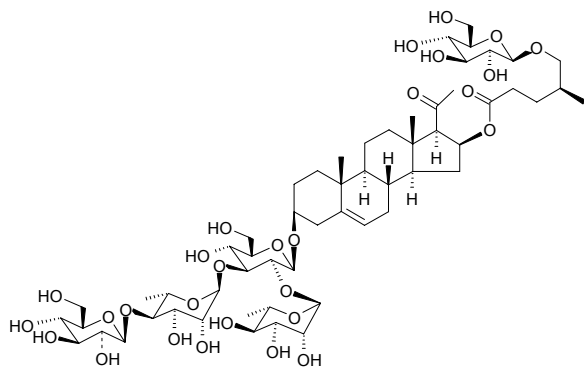
**8706** 2β-(β-D-glucopyranosyloxy)-8β-(4''-methoxyphenylacetox)-guaia-4(15),10(14),11(13)-trien-1α,5α,6β,7αH-12,6-olide

C<sub>30</sub>H<sub>36</sub>O<sub>11</sub> (572.61). Source: NAN XI BAN YA HUAN YANG SHEN *Crepis tingitana*. Ref: 1859.



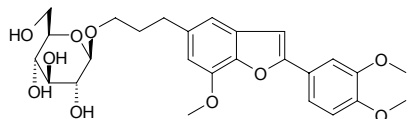
**8707** 16β-[[[(4S)-5-(β-D-Glucopyranosyloxy)-4-methyl-1-oxopentyl]oxy]-3β-[(O-α-L-rhamnopyranosyl-(1→2)-O-[O-β-D-glucopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→3)]-β-D-glucopyranosyl)oxy]pregn-5-en-20-one

C<sub>57</sub>H<sub>92</sub>O<sub>28</sub> (1225.35). Amorphous solid, [α]<sub>D</sub><sup>25</sup> = -22.0° (c = 0.10, CHCl<sub>3</sub>:MeOH = 1:1). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.00082%dw). Ref: 4648.



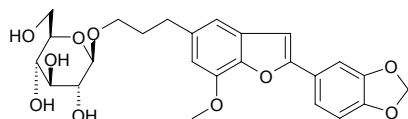
**8708** 5-[3''-(β-D-Glucopyranosyloxy)propyl]-7-methoxy-2-(3',4'-dimethoxyphenyl)benzofuran

C<sub>26</sub>H<sub>32</sub>O<sub>10</sub> (504.54). White powder, [α]<sub>D</sub><sup>25</sup> = -22.23° (c = 0.8, CH<sub>3</sub>OH). Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 20μg/mL; control Chloramphenicol, MIC = 5μg/mL); antifungal (*Candida albicans*, MIC = 20μg/mL, control Chloramphenicol, MIC = 5μg/mL; *Cladosporium sphaerospermum*, inactive at 20μg). Source: XIU SE AN XI XIANG *Styrax ferrugineus* (leaf). Ref: 5100.



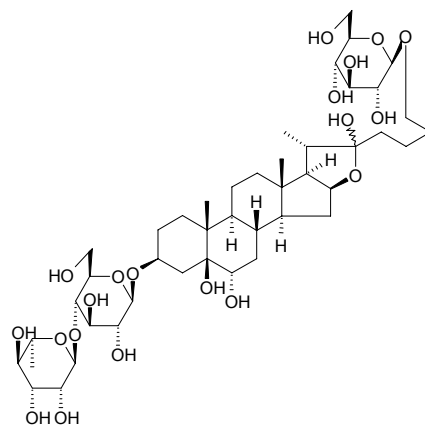
**8709** 5-[3''-β-D-Glucopyranosyloxy)propyl]-7-methoxy-2-(3',4'-methylenedioxyphenyl)benzofuran

C<sub>25</sub>H<sub>28</sub>O<sub>10</sub> (488.50). White powder. Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 15μg/mL; control Chloramphenicol, MIC = 5μg/mL); antifungal (*Candida albicans*, MIC = 15μg/mL, control Chloramphenicol, MIC = 5μg/mL; *Cladosporium sphaerospermum*, inactive at 20μg). Source: XIU SE AN XI XIANG *Styrax ferrugineus* (leaf). Ref: 5100.



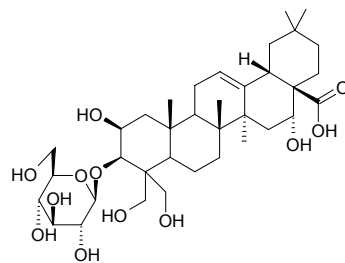
**8710** 26-O-β-D-Glucopyranosyl-(25S)-3β,5β,6α,22ξ,26-pentahydroxyl-5β-furostane 3-O-α-L-rhamnopyranosyl-(1→4)-β-D-glucopyranoside

C<sub>45</sub>H<sub>76</sub>O<sub>20</sub> (937.10). Amorphous powder, [α]<sub>D</sub><sup>29</sup> = -53.2° (c = 0.20, pyridine). Source: JIU ZI *Allium tuberosum*. Ref: 4262.



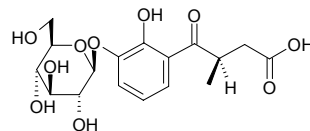
**8711** 3-O-β-D-Glucopyranosyl platycodigenin

3-O-β-D-Glucopyranosyl-2β,3β,16α,23,24-pentahydroxyolean-12-ene-28-oic acid C<sub>36</sub>H<sub>58</sub>O<sub>12</sub> (682.86). White amorphous powder. Source: JIE GENG *Platycodon grandiflorum*. Ref: 4900.



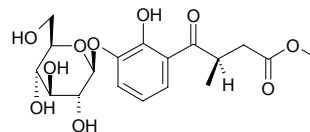
**8712** 3'-O-β-Glucopyranosyl plumbagic acid

C<sub>17</sub>H<sub>22</sub>O<sub>10</sub> (386.36). Amorphous powder. Source: BAI HUA DAN *Plumbago zeylanica*. Ref: 2047.



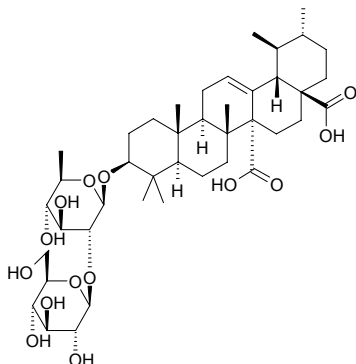
**8713** 3'-O-β-Glucopyranosyl plumbagic acid methyl ester

C<sub>18</sub>H<sub>24</sub>O<sub>10</sub> (400.39). [α]<sub>D</sub><sup>27</sup> = -37° (c = 0.35, MeOH). Source: BAI HUA DAN *Plumbago zeylanica*. Ref: 2047.



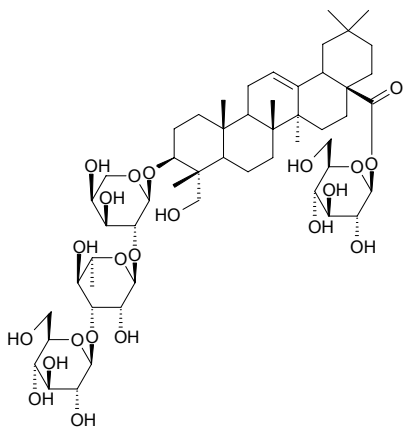
**8714 3-O-β-D-glucopyranosyl-(1→2)-β-D-quinovopyranosyl quinovic acid**

C<sub>42</sub>H<sub>66</sub>O<sub>14</sub> (794.99). Colorless crystalline solid, mp 220~222 °C (H<sub>2</sub>O), [α]<sub>D</sub><sup>22</sup> = +43° (c = 0.6, MeOH). Source: WU BING XIN WU TAN *Neonauclea sessilifolia* [Syn. *Nauclea sessilifolia*; *Adina sessilifolia*](root). Ref: 4405.



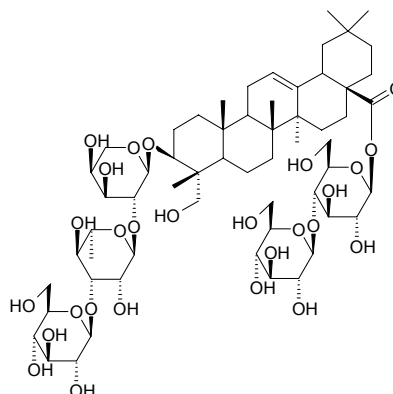
**8715 3β-O-(β-D-Glucopyranosyl-(1→3)-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl)-hederagenin-28-O-β-D-glucopyranosyl ester**

C<sub>53</sub>H<sub>86</sub>O<sub>22</sub> (1075.26). White powder, [α]<sub>D</sub><sup>25</sup> = +47°, (c = 1, MeOH). Pharm: Cytotoxic (antiproliferative *in vitro*: J774.A1 cell line, IC<sub>50</sub> = 0.51 μmol/L, HEK-293 cell line, IC<sub>50</sub> = 1.8 μmol/L, WEHI-164 cell line, IC<sub>50</sub> = 1.74 μmol/L; control 6-Mercaptopurine, J774.A1 cell line, IC<sub>50</sub> = 0.003 μmol/L, HEK-293 cell line, IC<sub>50</sub> = 0.007 μmol/L, WEHI-164 cell line, IC<sub>50</sub> = 0.015 μmol/L). Source: YUAN YE E ZHANG CHAI *Schefflera rotundifolia* (aerial parts). Ref: 5036.



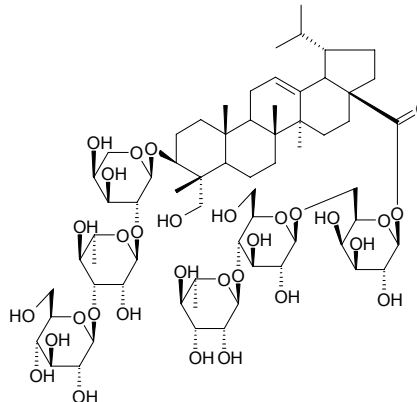
**8716 3β-O-(β-D-Glucopyranosyl-(1→3)-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl)-hederagenin-28-O-(β-D-glucopyranosyl-(1→4)-β-D-glucopyranosyl)ester**

C<sub>59</sub>H<sub>96</sub>O<sub>27</sub> (1237.41). White powder, [α]<sub>D</sub><sup>25</sup> = +29°, (c = 1, MeOH). Pharm: Cytotoxic (antiproliferative, *in vitro*: J774.A1 cell line, IC<sub>50</sub> = 1.63 μmol/L, WEHI-164 cell line, IC<sub>50</sub> = 0.64 μmol/L; control 6-Mercaptopurine, J774.A1 cell line, IC<sub>50</sub> = 0.003 μmol/L, WEHI-164 cell line, IC<sub>50</sub> = 0.015 μmol/L). Source: YUAN YE E ZHANG CHAI *Schefflera rotundifolia* (aerial parts). Ref: 5036.



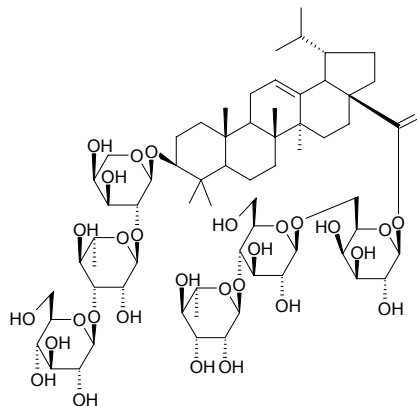
**8717 3β-O-(β-D-Glucopyranosyl-(1→3)-α-rhamnopyranosyl-(1→2)-α-arabinopyranosyl)-23-hydroxylup-12-en-28-O-(α-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→6)-β-galactopyranosyl) ester**

C<sub>65</sub>H<sub>106</sub>O<sub>31</sub> (1383.55). White amorphous powder, [α]<sub>D</sub><sup>25</sup> = +120° (c = 1, MeOH). Pharm: Antiproliferative (*in vitro*, J774 cell line, IC<sub>50</sub> = 0.46 μmol/L, control 6-Mercaptopurine, IC<sub>50</sub> = 0.003 μmol/L; WEHI-164, IC<sub>50</sub> = 1.9 μmol/L, 6-Mercaptopurine, IC<sub>50</sub> = 0.017 μmol/L). Source: *Schefflera fagueti*. Ref: 5436.



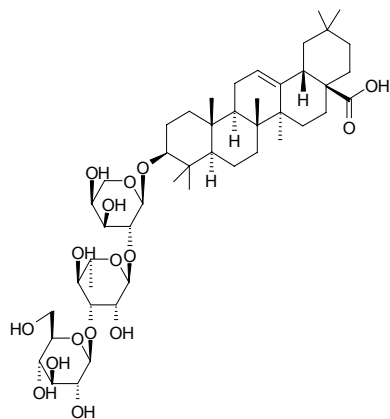
**8718 3β-O-(β-D-Glucopyranosyl-(1→3)-α-rhamnopyranosyl-(1→2)-α-arabinopyranosyl)-lup-12-en-28-O-(α-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→6)-β-galactopyranosyl) ester**

C<sub>65</sub>H<sub>106</sub>O<sub>30</sub> (1367.55). White amorphous powder, [α]<sub>D</sub><sup>25</sup> = +139° (c = 1, MeOH). Pharm: Antiproliferative (*in vitro*, J774 cell line, IC<sub>50</sub> = 0.19 μmol/L, control 6-Mercaptopurine, IC<sub>50</sub> = 0.003 μmol/L; WEHI-164, IC<sub>50</sub> = 0.56 μmol/L, 6-Mercaptopurine, IC<sub>50</sub> = 0.017 μmol/L). Source: *Schefflera fagueti*. Ref: 5436.



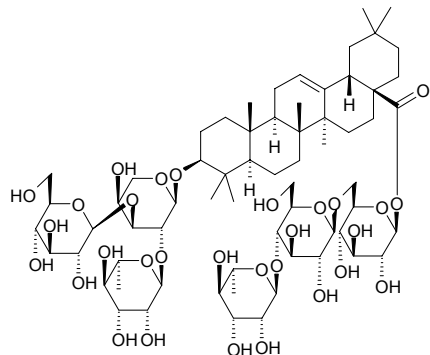
**8719 3-O- $\alpha$ -L-Glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyloleonic acid**

C<sub>47</sub>H<sub>76</sub>O<sub>16</sub> (897.12). Source: SAN YE MU TONG *Akebia trifoliata* (stem), HUANG HUA BAI JIANG *Patrinia scabiosaefolia*. Ref: 660, 4545.



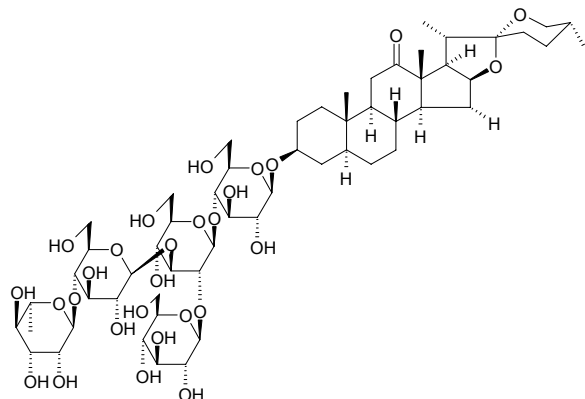
**8720 3β-[(O-β-D-Glucopyranosyl-(1 $\rightarrow$ 3)-O-[ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl]oxy]olean-12-en-28-oic acid O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)-O-β-D-glucopyranosyl-(1 $\rightarrow$ 6)-β-D-glucopyranosyl ester**

C<sub>65</sub>H<sub>106</sub>O<sub>30</sub> (1367.55). Source: SAN YE MU TONG *Akebia trifoliata* (stem). Ref: 4545.



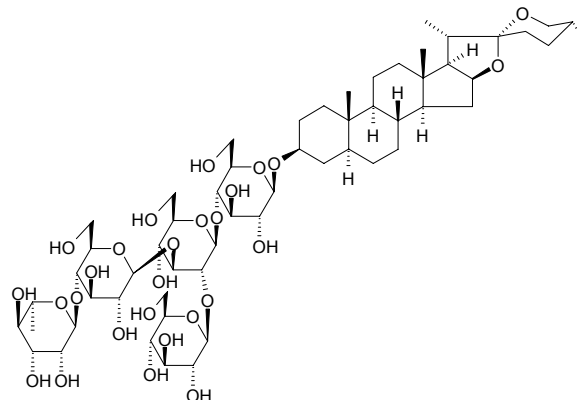
**8721 (25R)-3β-[(O-β-D-Glucopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)-β-D-glucopyranosyl-(1 $\rightarrow$ 3)]-O-β-D-glucopyranosyl-(1 $\rightarrow$ 4)-β-D-galactopyranosyl]oxy]-5 $\alpha$ -spirostan-12-one**

C<sub>57</sub>H<sub>92</sub>O<sub>28</sub> (1225.35). Amorphous solid,  $[\alpha]_D^{25} = -36.0^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (hmn oral squamous cell HSC-2, LD<sub>50</sub> = 2.4 μg/mL; normal hmn gingival fibroblast HGF cell, LD<sub>50</sub> = 18 μg/mL). Source: *Camassia leichtlinii* (bulb). Ref: 3535.



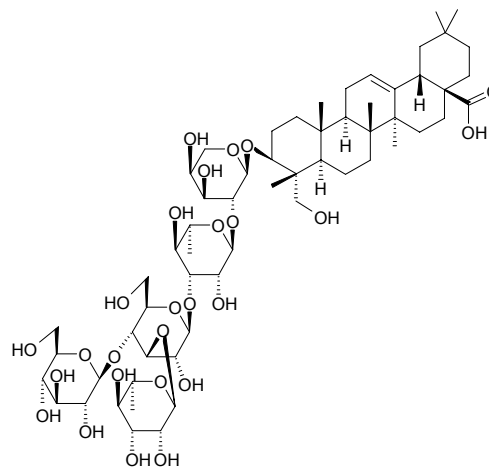
**8722 (25R)-3β-[(O-β-D-Glucopyranosyl-(1 $\rightarrow$ 2)-O-[O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)-β-D-glucopyranosyl-(1 $\rightarrow$ 3)]-O-β-D-glucopyranosyl-(1 $\rightarrow$ 4)-β-D-galactopyranosyl]oxy]-5 $\alpha$ -spirostane**

C<sub>57</sub>H<sub>94</sub>O<sub>27</sub> (1211.37). Pharm: Cytotoxic (hmn oral squamous cell HSC-2, LD<sub>50</sub> = 1.9 μg/mL; normal hmn gingival fibroblast HGF cell, LD<sub>50</sub> = 20 μg/mL). Source: *Camassia leichtlinii* (bulb). Ref: 3535.



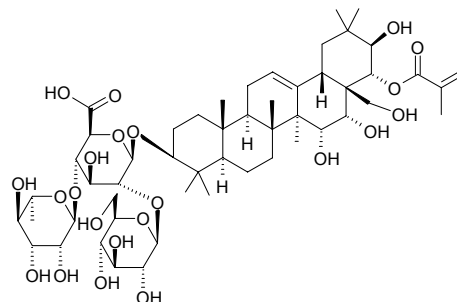
**8723 3-O-β-D-Glucopyranosyl-(1 $\rightarrow$ 4)[ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 3)]-β-D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -arabinopyranosyl-hederagenin**

C<sub>59</sub>H<sub>96</sub>O<sub>26</sub> (1221.41). White powder, mp 239–243°C,  $[\alpha]_D^{21} = -12.3^\circ$  ( $c = 0.28$ , MeOH). Source: CHUAN XU DUAN *Dipsacus asperoides*. Ref: 265.

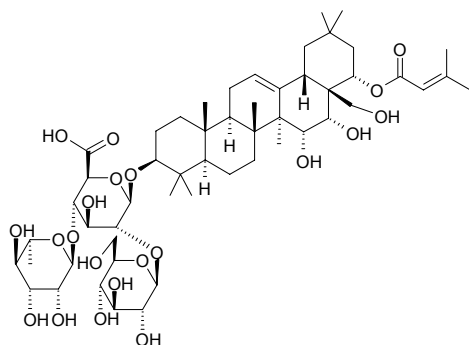


**8724 3-O-β-D-Glucopyranosyl-(1 $\rightarrow$ 2)-[ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)]-β-D-glucuronopyranosyl-22-O-angeloyl-barrigenol R<sub>1</sub>**

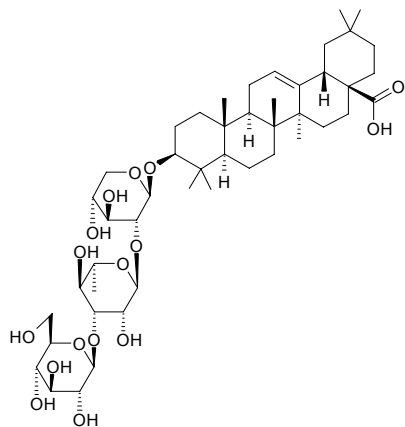
C<sub>53</sub>H<sub>84</sub>O<sub>22</sub> (1073.25). White amorphous powder,  $[\alpha]_D^{25} = -33.0^\circ$  ( $c = 0.03$ , MeOH). Source: TIAN YE CI QIN *Eryngium campestre* (root). Ref: 4518.



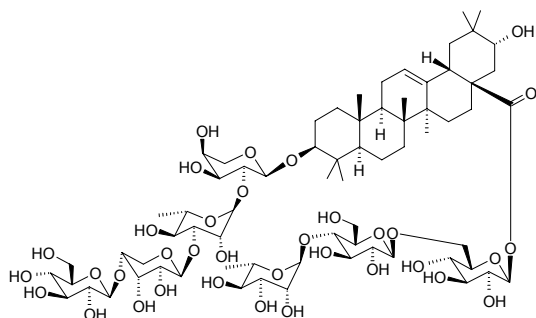
**8725** 3-*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 2)-[ $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)]- $\beta$ -*D*-glucuronopyranosyl-22-*O*- $\beta$ , $\beta$ -dimethylacryloyl-barrigenol A<sub>1</sub>  
C<sub>53</sub>H<sub>84</sub>O<sub>21</sub> (1057.25). White amorphous powder,  $[\alpha]_D^{25} = -33.0^\circ$  ( $c = 0.03$ , MeOH). Source: TIAN YE CI QIN *Eryngium campestre* (root). Ref: 4518.



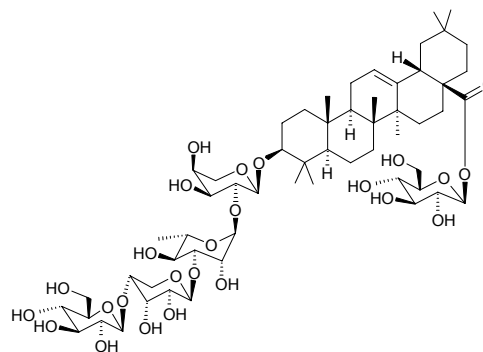
**8726** 3-*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-xylopyranosyl oleanolic acid  
C<sub>47</sub>H<sub>76</sub>O<sub>16</sub> (897.12). White powder (acetone), mp 234–238°C (dec). Source: HUANG HUA BAI JIANG *Patrinia scabiosaefolia*. Ref: 776.



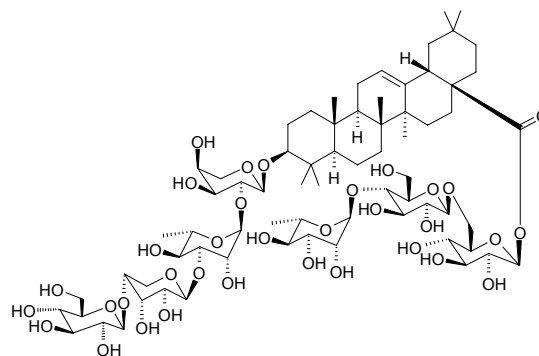
**8727** 3 $\beta$ -[(*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 4)-*O*- $\beta$ -*D*-ribopyranosyl-(1 $\rightarrow$ 3)-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl)oxy]-21 $\alpha$ -hydroxy olean-12-en-28-oic acid *O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl ester  
C<sub>70</sub>H<sub>114</sub>O<sub>35</sub> (1515.67). Amorphous solid,  $[\alpha]_D^{25} = -108.0^\circ$  ( $c = 0.25$ , MeOH). Source: WEI LING XIAN *Clematis chinensis* (root; yield = 0.0024%). Ref: 4763.



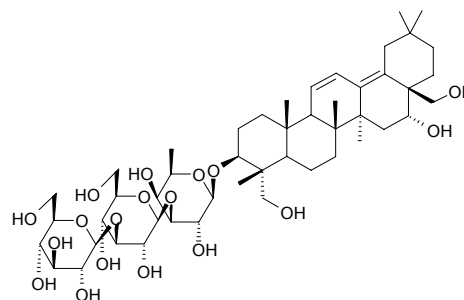
**8728** 3 $\beta$ -[(*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 4)-*O*- $\beta$ -*D*-ribopyranosyl-(1 $\rightarrow$ 3)-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl)oxy]olean-12-en-28-oic acid *O*- $\beta$ -*D*-glucopyranosyl ester  
C<sub>58</sub>H<sub>94</sub>O<sub>25</sub> (1191.38). Amorphous solid,  $[\alpha]_D^{25} = -38.0^\circ$  ( $c = 0.10$ , MeOH). Source: WEI LING XIAN *Clematis chinensis* (root; yield = 0.00028%). Ref: 4763.



**8729** 3 $\beta$ -[(*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 4)-*O*- $\beta$ -*D*-ribopyranosyl-(1 $\rightarrow$ 3)-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl)oxy]olean-12-en-28-oic acid *O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl ester  
C<sub>70</sub>H<sub>114</sub>O<sub>34</sub> (1499.67). Source: WEI LING XIAN *Clematis chinensis* (root; yield = 0.0125%). Ref: 4763.

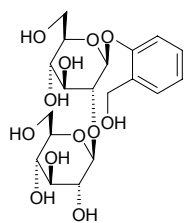


**8730** 2''-*O*- $\beta$ -*D*-glucopyranosyl saikosaponin b<sub>2</sub>  
C<sub>48</sub>H<sub>78</sub>O<sub>18</sub> (943.15). Source: WEN CHUAN CHAI HU *Bupleurum wenchuanense*. Ref: 2247.

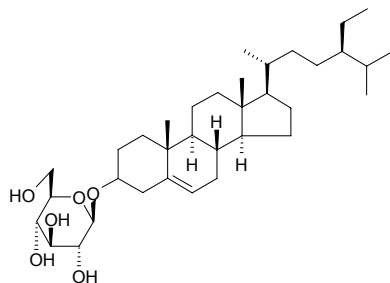


**8731 2'-O-β-D-Glucopyranosylsalicin**

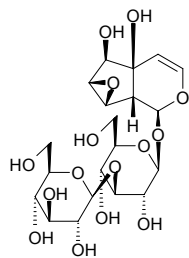
C<sub>19</sub>H<sub>28</sub>O<sub>12</sub> (448.43). [α]<sub>D</sub><sup>22</sup> = -33° (c = 0.35, MeOH). Source: BA JIAO FENG *Alangium chinense* (leaf). Ref: 4131.

**8732 3-O-β-D-Glucopyranosyl-β-sitosterol**

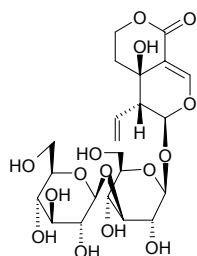
C<sub>35</sub>H<sub>60</sub>O<sub>6</sub> (576.86). Crystals, mp 287~289°C. Source: *Zygophyllum atriplicoides* (whole herb). Ref: 4504.

**8733 3'-O-β-D-Glucopyranosylstilbericoside**

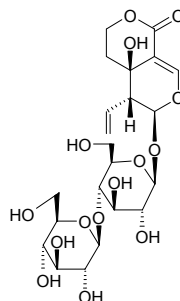
C<sub>20</sub>H<sub>30</sub>O<sub>15</sub> (510.45). Amorphous powder, [α]<sub>D</sub><sup>19</sup> = -105.3° (c = 0.69, MeOH). Source: TAI GUO SHAN QIAN NIU *Thunbergia laurifolia*. Ref: 1968.

**8734 3'-O-β-D-Glucopyranosylswertiamarin**

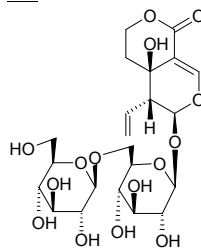
C<sub>22</sub>H<sub>32</sub>O<sub>15</sub> (536.49). Amorphous powder, [α]<sub>D</sub><sup>25</sup> = -114.6° (c = 0.2, MeOH). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.

**8735 4'-O-β-D-Glucopyranosylswertiamarin**

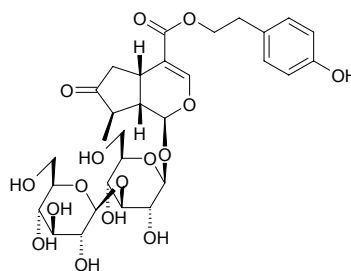
C<sub>22</sub>H<sub>32</sub>O<sub>15</sub> (536.49). Amorphous powder, [α]<sub>D</sub><sup>25</sup> = -96.8° (c = 0.2, MeOH). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.

**8736 6'-O-β-D-Glucopyranosylswertiamarin**

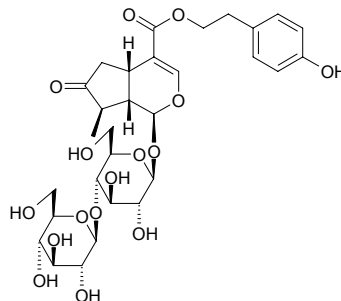
C<sub>22</sub>H<sub>32</sub>O<sub>15</sub> (536.49). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.

**8737 3'-O-β-D-Glucopyranosylsyringopicroside**

C<sub>30</sub>H<sub>40</sub>O<sub>16</sub> (656.64). Amorphous powder, [α]<sub>D</sub><sup>26</sup> = -88.9° (c = 0.3, MeOH). Source: BAO MA ZI *Syringa amurensis* [Syn. *Syringa reticulata* var. *amurensis*] (leaf). Ref: 4175.

**8738 4'-O-β-D-Glucopyranosylsyringopicroside**

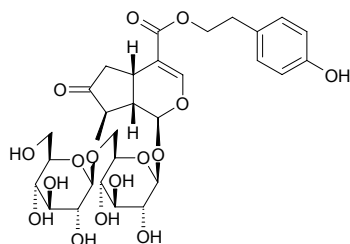
C<sub>30</sub>H<sub>40</sub>O<sub>16</sub> (656.64). Amorphous powder, [α]<sub>D</sub><sup>26</sup> = -77.2° (c = 0.8, MeOH). Source: BAO MA ZI *Syringa amurensis* [Syn. *Syringa reticulata* var. *amurensis*] (leaf). Ref: 4175.



**8739 6'-O- $\alpha$ -D-Glucopyranosylsyringopioside**

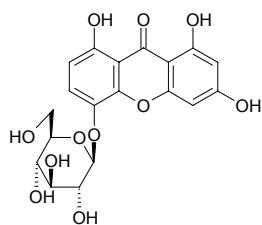
$C_{30}H_{40}O_{16}$  (656.64). Amorphous powder,  $[\alpha]_D^{26} = -28.6^\circ$  ( $c = 0.2$ , MeOH).

Source: BAO MA ZI *Syringa amurensis* [Syn. *Syringa reticulata* var. *amurensis*] (leaf). Ref: 4175.

**8740 5-O- $\beta$ -D-Glucopyranosyl-1,3,8-trihydroxyanthone**

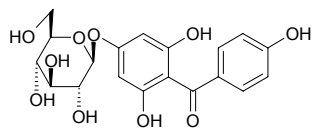
$C_{19}H_{18}O_{11}$  (422.35). Yellow amorphous powder, mp 280–282°C. Source:

CHUAN DONG ZHANG YA CAI *Swertia davidii* (whole herb). Ref: 4839.

**8741 4-O- $\beta$ -D-Glucopyranosyl-2,6,4'-trihydroxybenzophenone**

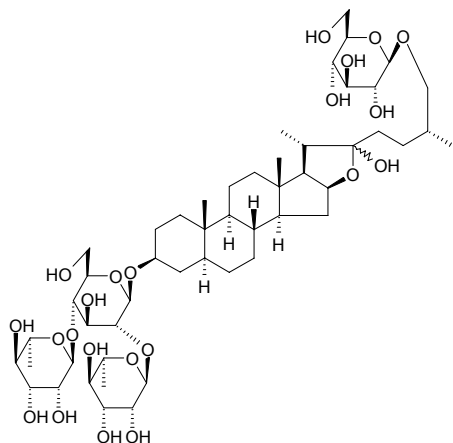
$C_{19}H_{20}O_{10}$  (408.37). Source: KUO YE GU SUI BU *Davallia solida*. Ref:

5150.

**8742 26-O- $\beta$ -D-Glucopyranosyl-(25R)-3 $\beta$ ,22 $\zeta$ ,26-trihydroxyl-5 $\alpha$ -furostane 3-O- $\beta$ -chacotrioside**

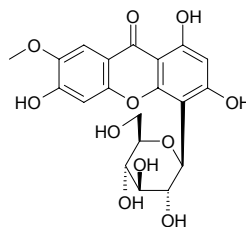
$C_{51}H_{86}O_{22}$  (1051.24). Amorphous powder,  $[\alpha]_D^{29} = -45.4^\circ$  ( $c = 0.17$ , pyridine).

Source: JIU ZI *Allium tuberosum*. Ref: 4262.

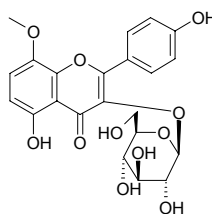
**8743 4-C- $\beta$ -D-Glucopyranosyl-1,3,6-trihydroxy-7-methoxyxanthone**

$C_{20}H_{20}O_{11}$  (436.38). Yellow powder, mp 182–186°C. Source: YUAN ZHI

*Polygala tenuifolia*. Ref: 2433.

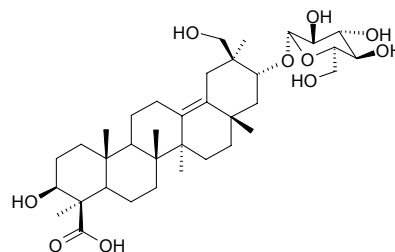
**8744 3-O- $\beta$ -D-Glucopyranosyl-5,9,4'-trihydroxy-8-methoxyflavone**

$C_{22}H_{22}O_{11}$  (462.41). Source: MA HUANG *Ephedra sinica*. Ref: 2.

**8745 21-O- $\beta$ -D-Glucopyranosyl-3 $\beta$ ,21 $\alpha$ ,30-trihydroxyolean-13(18)-en-24-oic acid**

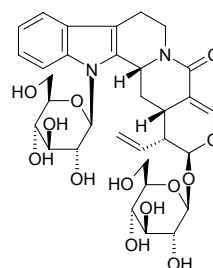
$C_{36}H_{58}O_{10}$  (650.86). Amorphous white powder (MeOH), mp 270–272°C,

$[\alpha]_D^{25} = -11.7^\circ$  ( $c = 0.41$ , MeOH). Source: SI CHI SI LENG CAO *Schnabelia tetradonta* (aerial parts: yield = 0.00010%dw). Ref: 4665.

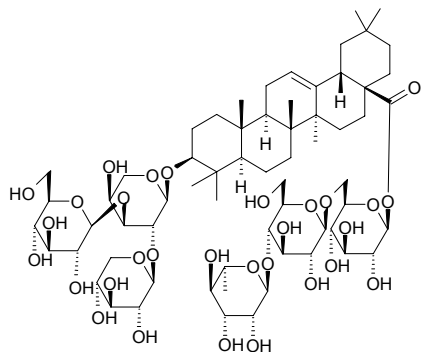
**8746 N- $\beta$ -D-Glucopyranosyl vincosamide**

$C_{32}H_{40}N_2O_{13}$  (660.68). Yellow amorphous powder. Source: PING HUA GUO

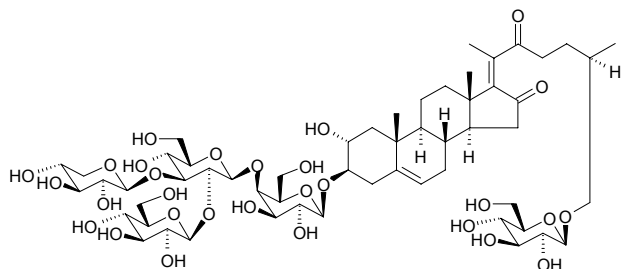
JIU JE *Psychotria leiocarpa* (shoot). Ref: 3769.



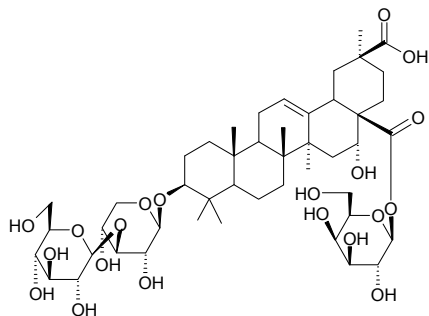
**8747** 3 $\beta$ -[(*O*- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 3)-*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl)oxy]olean-12-en-28-oic acid *O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester  
C<sub>64</sub>H<sub>104</sub>O<sub>30</sub> (1353.52). Source: SAN YE MU TONG *Akebia trifoliata* (stem). Ref: 4545.



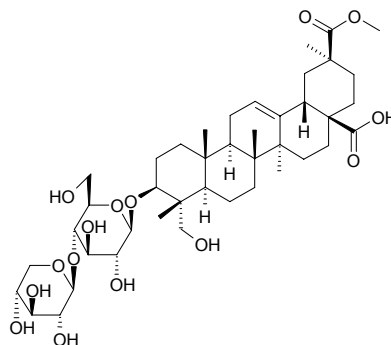
**8748** (25*R*)-3 $\beta$ -[(*O*- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 2)-*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]-*O*- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-galactopyranosyl)oxy]-26-[( $\beta$ -D-glucopyranosyl)oxy]-2 $\alpha$ -hydroxycholesta-5,17-diene-16,22-dione  
C<sub>56</sub>H<sub>88</sub>O<sub>29</sub> (1225.31). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>29</sup> = -104.0° (*c* = 0.10, MeOH). Pharm: Cytotoxic (*in vitro*, HSC-2, LD<sub>50</sub> > 300 $\mu$ g/mL; control Doxorubicin, LD<sub>50</sub> = 2.5 $\mu$ g/mL). Source: YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0040%fw). Ref: 4667.



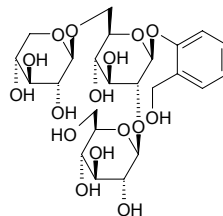
**8749** 3 $\beta$ -*O*-( $\beta$ -Glucopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -xylopyranosyl)-16 $\alpha$ -hydroxy-olean-12-ene-28,30-dioic acid 28-*O*-( $\beta$ -galactopyranosyl) ester  
C<sub>47</sub>H<sub>74</sub>O<sub>20</sub> (959.10). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +11° (*c* = 1, MeOH). Pharm: Antiproliferative (*in vitro*, J774 cell line, IC<sub>50</sub> = 3.6 $\mu$ mol/L, control 6-Mercaptopurine, IC<sub>50</sub> = 0.003 $\mu$ mol/L; HEK-293, IC<sub>50</sub> = 0.50 $\mu$ mol/L, 6-Mercaptopurine, IC<sub>50</sub> = 0.007 $\mu$ mol/L; WEHI-164, IC<sub>50</sub> = 0.18 $\mu$ mol/L, 6-Mercaptopurine, IC<sub>50</sub> = 0.017 $\mu$ mol/L). Source: *Schefflera faguetai*. Ref: 5436.



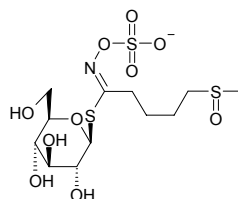
**8750** 3-*O*- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-xylopyranosyl]phytolaccinic Acid  
C<sub>42</sub>H<sub>66</sub>O<sub>15</sub> (810.99). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>21.8</sup> = +46.1° (*c* = 0.74, MeOH). Source: MEI SHANG LU *Phytolacca americana* [Syn. *Phytolacca decandra*]. Ref: 2443.



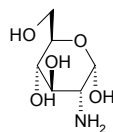
**8751** 2'-*O*- $\beta$ -D-Glucopyranosyl-6'-*O*- $\beta$ -D-xylopyranosylsalicin  
C<sub>24</sub>H<sub>36</sub>O<sub>16</sub> (580.54). [ $\alpha$ ]<sub>D</sub><sup>19</sup> = -31° (*c* = 0.27, MeOH). Source: BA JIAO FENG *Alangium chinense* (leaf). Ref: 4131.



**8752** Glucoraphanin  
[21414-41-5] C<sub>12</sub>H<sub>22</sub>NO<sub>10</sub>S<sub>3</sub><sup>-</sup> (436.50). Pharm: Antifungal; antimicrobial. Source: BAO ZI GAN LAN *Brassica oleracea* var. *gemmifera*, GAN LAN *Brassica oleracea* var. *capitata*, JU SAN HUA YE CAI *Brassica oleracea* var. *botrytis* subvar. *cymosa*, LAI FU ZI *Raphanus sativus*. Ref: 658.

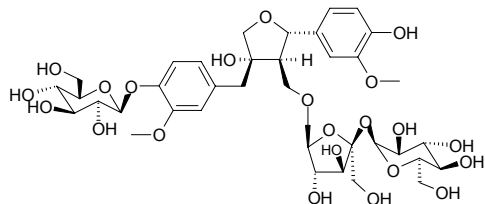


**8753** Glucosamine  
[3416-24-8] C<sub>6</sub>H<sub>13</sub>NO<sub>5</sub> (179.17). mp ( $\alpha$ ) 88°C, ( $\beta$ ) 110°C (dec). Pharm: Antiarthritic (approved by clinical trial). Source: BAI FAN DOU *Phaseolus vulgaris*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*], HAI SHEN CHANG *Stichopus japonicus*, LU RONG *Cervus nippon*; *Cervus elaphus*, NIU NAO *Bos taurus domesticus*; *Bubalus bubalis*, YE JU *Chrysanthemum indicum*, ZI ZHI *Ganoderma japonicum* [Syn. *Ganoderma sinense*]. Ref: 2, 658, 660.

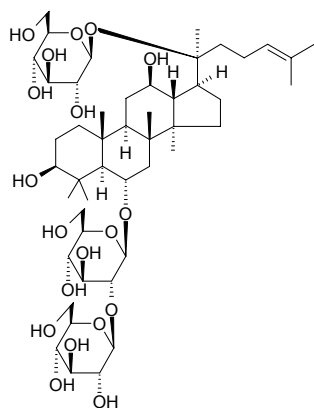


**8754 4'-O-β-D-Glucosyl-9-O-(6''-deoxysaccharosyl)olivil**

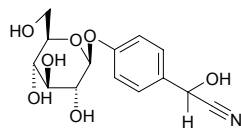
C<sub>38</sub>H<sub>54</sub>O<sub>22</sub> (862.84). [α]<sub>D</sub><sup>21</sup> = -27° (c = 0.05, DMSO). **Pharm:** Adenosine A<sub>1</sub> receptor partial agonist (rat and hmn adenosine A<sub>1</sub> receptor, the first non-nucleoside adenosine receptor agonist not structurally related to adenosine). **Source:** XIE CAO *Valeriana officinalis* (root: yield = 0.021%dw). **Ref:** 4656.

**8755 20-Glucosylginsenoside Rf**

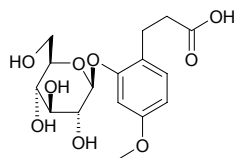
C<sub>48</sub>H<sub>82</sub>O<sub>19</sub> (963.18). **Source:** REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], ZHU JIE SAN QI *Panax pseudo-ginseng* var. *japonicus* (underground part: yield = 0.010%dw). **Ref:** 2, 4610.

**8756 p-Glucosyloxymandelonitrile**

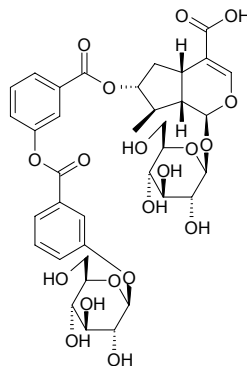
C<sub>14</sub>H<sub>17</sub>NO<sub>7</sub> (311.29). **Pharm:** Toxin. **Source:** NAN TIAN ZHU ZI *Nandina domestica*. **Ref:** 658.

**8757 2-O-β-D-Glucosyloxy-4-methoxybenzenepropanoic acid**

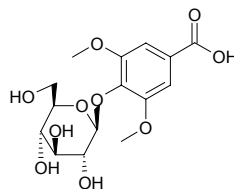
C<sub>16</sub>H<sub>22</sub>O<sub>9</sub> (358.35). mp 168–169°C (Me<sub>2</sub>CO), [α]<sub>D</sub><sup>22</sup> = -80° (c = 1.610, MeOH). **Source:** DUO TOU GE NI DI MU *Gnidia polycephala* (stem). **Ref:** 3502.

**8758 3'''-O-Glucosylsenburiside II**

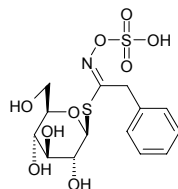
Senburiside IV C<sub>36</sub>H<sub>42</sub>O<sub>19</sub> (778.72). Amorphous, [α]<sub>D</sub><sup>26</sup> = -83.4° (c = 0.69, MeOH); White amorphous powder (MeOH-H<sub>2</sub>O), [α]<sub>D</sub><sup>25</sup> = -60.2° (c = 1.14, MeOH). **Source:** LIU QIU SHE GEN CAO *Ophiorrhiza liukiensis* (whole herb), BAO JING ZHANG YA CAI *Swertia franchetiana* (whole herb). **Ref:** 4527, 4469.

**8759 Glucosyringic acid**

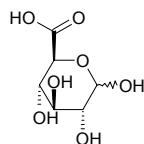
[33228-65-8] C<sub>15</sub>H<sub>20</sub>O<sub>10</sub> (360.32). Amorphous powder, mp 204–207°C, mp 215–217°C. **Source:** LIU CHUAN YU *Linaria vulgaris*, NAO YANG HUA *Rhododendron molle*, QUE MEI TENG *Sageretia theezans* [Syn. *Sageretia thea*]. **Ref:** 515, 4237, 5396.

**8760 Glucotropaeolin**

[499-26-3] C<sub>14</sub>H<sub>19</sub>NO<sub>9</sub>S<sub>2</sub> (409.44). Acicular Crystals (ethanol), tetramethylammonium, mp 188.0–189.2°C, [α]<sub>D</sub><sup>21</sup> = -16.7° (water). **Pharm:** Antibacterial; antifungal. **Source:** HAN LIAN HUA *Tropaeolum majus*, LA GEN *Armoracia lapathifolia*, FAN MU GUA *Carica papaya*. **Ref:** 6, 661.

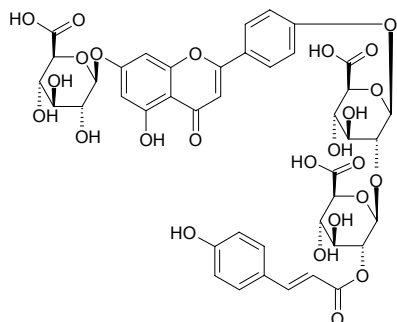
**8761 Glucuronic acid**

Glycuronic acid C<sub>6</sub>H<sub>10</sub>O<sub>7</sub> (194.14). **Pharm:** Antidote. **Source:** HUANG QI *Astragalus membranaceus*, LU HUI *Aloe vera* [Syn. *Aloe barbadensis*], REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 2, 658.

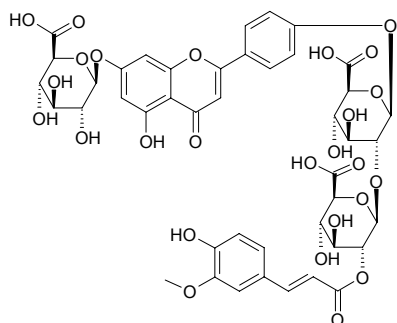




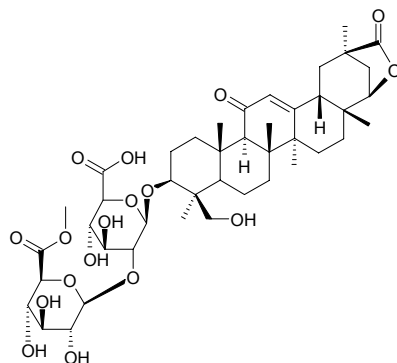
**8762 7-O-β-D-Glucuronopyranosyl-4'-O-[2'-O-p-E-coumaroyl-O-β-D-glucuronopyranosyl(1→2)-O-β-D-glucuronopyranoside]apigenin**  
 C<sub>42</sub>H<sub>40</sub>O<sub>25</sub> (944.77). Amorphous powder, mp 197~198°C,  $[\alpha]_D^{20} = -52.45^\circ$  ( $c = 0.1$ , MeOH). Source: MU XU *Medicago sativa* (aerial parts). Ref: 5167.



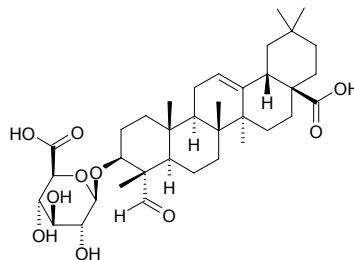
**8763 7-O-β-D-Glucuronopyranosyl-4'-O-[2'-O-E-feruloyl-O-β-D-glucuronopyranosyl(1→2)-O-β-D-glucuronopyranoside]apigenin**  
 C<sub>43</sub>H<sub>42</sub>O<sub>26</sub> (974.80). Amorphous yellow powder, mp 197~198°C,  $[\alpha]_D^{20} = -10.23^\circ$  ( $c = 0.1$ , MeOH). Source: MU XU *Medicago sativa* (aerial parts). Ref: 5167.



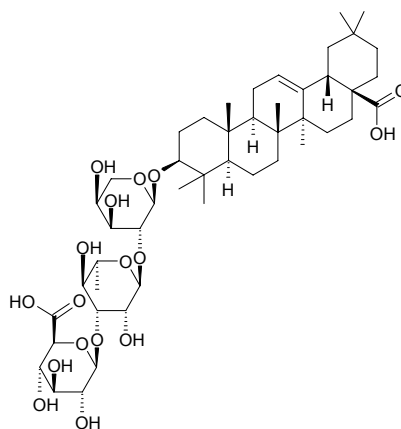
**8764 3-O-[β-D-Glucuronopyranosyl-(1→2)-O-β-D-glucuronopyranosyl]-24-hydroxyglabrolide**  
 C<sub>43</sub>H<sub>62</sub>O<sub>17</sub> (850.96). White powder,  $[\alpha]_D^{25} = +3.5$  ( $c = 0.002$ , CHCl<sub>3</sub>:CH<sub>3</sub>OH = 1:5). Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 2085, 2445.



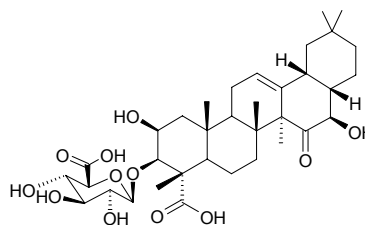
**8765 3-O-β-D-Glucuronopyranosyl gypsogenin**  
 C<sub>36</sub>H<sub>54</sub>O<sub>10</sub> (646.83). White lamellar Crystals, mp 238~240°C. Source: SHAN KU GUA *Momordica dioica*. Ref: 645.



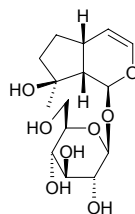
**8766 3β-[(O-β-D-Glucuronopyranosyl-(1→3)-O-[α-L-rhamnopyranosyl-(1→2)]-α-L-arabinopyranosyl)oxy]olean-12-en-28-oic acid**  
 C<sub>47</sub>H<sub>74</sub>O<sub>17</sub> (911.10). Amorphous solid,  $[\alpha]_D^{27} = -4.0^\circ$  ( $c = 0.10$ , MeOH). Source: SAN YE MU TONG *Akebia trifoliata* (stem). Ref: 4545.



**8767 3-O-β-D-Glucuronopyranosyl-2β,3β,16β-trihydroxy-28-norolean-12-en-15-on-23-oic acid**  
 C<sub>35</sub>H<sub>52</sub>O<sub>12</sub> (664.8). White needles (MeOH), mp >350°C,  $[\alpha]_D^{25} = +54.5^\circ$  ( $c = 0.44$ , MeOH). Source: SI CHI SI LENG CAO *Schnabelia tetradonta* (aerial parts: yield = 0.00026%dw). Ref: 4665.

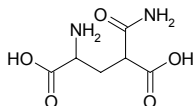


**8768 Glucoside**  
 C<sub>15</sub>H<sub>24</sub>O<sub>8</sub> (332.35). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 2448.

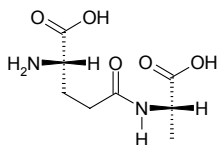


**8769 L-Glutamic acid- $\gamma$ -methylamide**

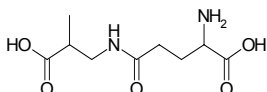
$C_6H_{10}N_2O_5$  (190.16). Source: CHA ZI XIN *Camellia oleifera*, YOU CHA GEN PI *Camellia oleifera*. Ref: 6.

**8770  $\gamma$ -Glutamyl-alanine**

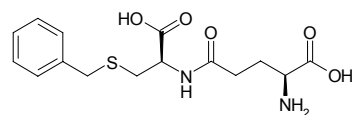
[5875-41-2]  $C_8H_{14}N_2O_5$  (218.21). mp 194~195°C (dec),  $[\alpha]_D = -28^\circ$  ( $c = 2$ ,  $H_2O$ ). Source: NIU NAO *Bos taurus domesticus*; *Bubalus bubalis*. Ref: 6, 1521.

**8771  $\gamma$ -L-Glutamyl-L- $\beta$ -aminoisobutyric acid**

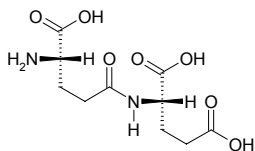
$C_9H_{16}N_2O_5$  (232.24). Source: NIU NAO *Bos taurus domesticus*; *Bubalus bubalis*. Ref: 6.

**8772 ( $S_{C_2}R_{C_7}$ )- $\gamma$ -Glutamyl-S-benzylcysteine**

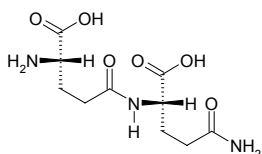
$C_{15}H_{20}N_2O_5S$  (340.40). White hygroscopic solid, mp 152~155°C,  $[\alpha]_D^{22} = -14.7^\circ$  ( $c = 0.03$ ,  $H_2O$ ). Source: SUAN CHOU MU JI CAO *Petiveria alliacea* (root). Ref: 5322.

**8773  $\gamma$ -L-Glutamyl-L-glutamic acid**

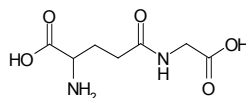
[1116-22-9]  $C_{10}H_{16}N_2O_7$  (276.25). mp 191~192°C,  $[\alpha]_D^{16} = +6.6^\circ$  ( $c = 1$ , 1mol/L HCl). Source: NIU NAO *Bos taurus domesticus*; *Bubalus bubalis*. Ref: 6, 1521.

**8774  $\gamma$ -L-Glutamyl-glutamine**

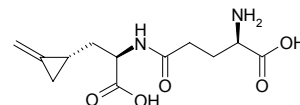
$C_{10}H_{17}N_3O_6$  (275.26). mp 191~192°C,  $[\alpha]_D^{16} = +11^\circ$  ( $c = 1$ , 1mol/L HCl). Source: NIU NAO *Bos taurus domesticus*; *Bubalus bubalis*. Ref: 6, 1521.

**8775  $\gamma$ -L-Glutamyl-glycine**

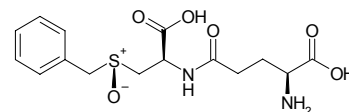
$C_7H_{12}N_2O_5$  (204.18). Source: NIU NAO *Bos taurus domesticus*; *Bubalus bubalis*. Ref: 6.

**8776 L-gamma-Glutamyl-L-hypoglycin**

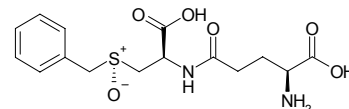
$C_{12}H_{18}N_2O_5$  (270.29). Pharm: Supertoxic agent. Source: XI FEI LI ZHI GUO *Blighia sapida*. Ref: 658.

**8777  $\gamma$ -L-Glutamyl-petiveriin A**

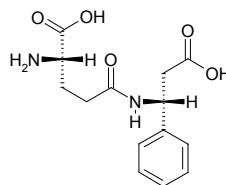
( $S_{C_2}R_{C_7}R_S$ )- $\gamma$ -Glutamyl-S-benzylcysteine sulfoxide  $C_{15}H_{20}N_2O_6S$  (356.40). White hygroscopic solid, mp 126~129°C,  $[\alpha]_D^{22} = +3.2^\circ$  ( $c = 0.06$ ,  $H_2O$ ). Source: SUAN CHOU MU JI CAO *Petiveria alliacea* (root). Ref: 5322.

**8778  $\gamma$ -L-Glutamyl-petiveriin B**

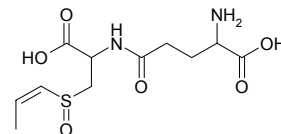
( $S_{C_2}R_{C_7}S_S$ )- $\gamma$ -Glutamyl-S-benzylcysteine sulfoxide  $C_{15}H_{20}N_2O_6S$  (356.40). White hygroscopic solid, mp 138~140°C,  $[\alpha]_D^{22} = -26.2^\circ$  ( $c = 0.06$ ,  $H_2O$ ). Source: SUAN CHOU MU JI CAO *Petiveria alliacea* (root). Ref: 5322.

**8779  $\gamma$ -L-Glutamyl-L-phenylalanine**

$C_{14}H_{18}N_2O_5$  (294.31). mp 164~174°C (dec). Source: DI YANG QUE *Lotus corniculatus*. Ref: 6, 1521.

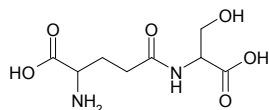
**8780  $\gamma$ -L-Glutamyl-S-(prop-1-enyl)cystein sulfoxide**

$C_{11}H_{18}N_2O_6S$  (306.34). Source: TAN XIANG *Santalum album*. Ref: 6.

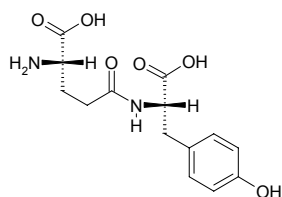


**8781  $\gamma$ -Glutamyl-serine**

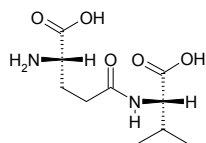
$C_8H_{14}N_2O_6$  (234.21). Source: NIU NAO *Bos taurus domesticus*; *Bubalus bubalis*. Ref: 6.

**8782  $\gamma$ -L-Glutamyl-L-tyrosine**

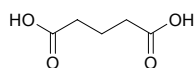
[6720-09-8]  $C_{14}H_{18}N_2O_6$  (310.31). mp 221~222°C (dec),  $[\alpha]_D^{31} = +26.6^\circ$  ( $c = 4$ ). Source: DI YANG QUE *Lotus corniculatus*. Ref: 6, 1521.

**8783  $\gamma$ -Glutamyl-valine**

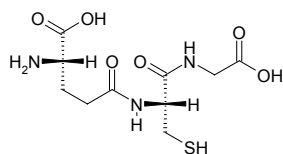
[2746-34-1]  $C_{10}H_{18}N_2O_5$  (246.27). mp 207°C,  $[\alpha]_D = 0^\circ$  ( $c = 2.4$ ,  $H_2O$ ). Source: NIU NAO *Bos taurus domesticus*; *Bubalus bubalis*. Ref: 6, 1521.

**8784 Glutaric acid**

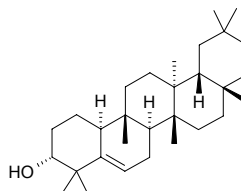
Pentanedioic acid [110-94-1]  $C_5H_8O_4$  (132.12). mp 97~98°C, bp 302~304°C. Pharm: Toxin. Source: TIAN CAI *Beta vulgaris*, NING MENG AN YE *Eucalyptus citriodora*. Ref: 6, 658.

**8785 Glutathione**

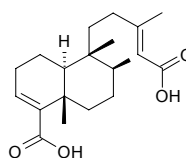
$\gamma$ -L-Glutamyl-L-cysteinylglycine; Glutamid; Glutinal; Triptide; Tathion [70-18-8]  $C_{10}H_{17}N_3O_6S$  (307.33). mp 195°C (50% ethanol),  $[\alpha]_D^{25} = -18.9^\circ$  ( $c = 4.653$ , water),  $[\alpha]_D^{27} = -21^\circ$  ( $c = 2.74$ ), easily soluble in water, diluted ethanol, liquid ammonia, dimethylformamide.<sup>[5507]</sup> Pharm: Has an important role in normal metabolic processes; antidote (from poisoning by sulfhydryl enzyme). Source: MU LI ROU *Ostrea rivularis*; *Ostrea talienshanensis*; *Ostrea gigas*, XIAO BAI BU *Asparagus officinalis*. Ref: 6, 658, 1521, 5507.

**8786  $\alpha$ -Glutenol**

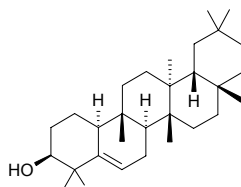
Glut-5-en-3 $\alpha$ -ol  $C_{30}H_{50}O$  (426.73). mp 203~205°C. Source: BA WANG BIAN *Euphorbia royleana*, XI YE DA JI *Euphorbia esula* var. *cyprisoides*. Ref: 6, 1521.

**8787 Glutinic acid**

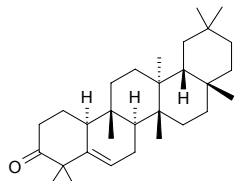
$C_{20}H_{30}O_4$  (334.46). White acicular Crystals, mp 119~120°C, easy soluble in acetone and pyridine. Source: NIAN YE YOU<sup>(2)</sup> *Caryopteris glutinosa*. Ref: 248.

**8788  $\beta$ -Glutinol**

Glutin-5-en-3 $\beta$ -ol  $C_{30}H_{50}O$  (426.73). White amorphous material, mp 211°C, mp 212°C,  $[\alpha]_D^{25} = 63.3^\circ$  ( $c = 0.71$ ,  $CHCl_3$ ). Pharm: Anti-inflammatory (modified assay of Tan and Berridge, 400 $\mu$ g/mL, InRt = 11.44%, control Aspirin, InRt = 70.45%)<sup>[5316]</sup>; cell viability (hmn isolated neutrophils, 12.5 $\mu$ g/mL, cell viability = 100%, 100 $\mu$ g/mL, cell viability = 100%, 200 $\mu$ g/mL, cell viability = 72.29%)<sup>[5316]</sup>. Source: BA WANG BIAN *Euphorbia royleana*, CHI YANG *Alnus japonica*, MENG GU LI *Quercus mongolica*, SONG LUO *Usnea longissima*, TAI WAN XIU XIAN JU *Spiraea formosana*. Ref: 6, 611, 2575, 5316.

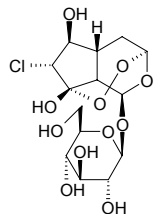
**8789 Glutinone**

[508-09-8]  $C_{30}H_{48}O$  (424.72). mp 245~246°C. Source: LONG XU CAO *Poa sphondylodes*. Ref: 6.

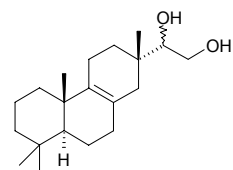


**8790 Glutinoside**

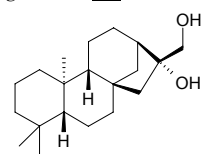
[103744-80-5]  $C_{14}H_{21}ClO_{11}$  (400.70). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*]. Ref: 2.

**8791 Glutinosin**

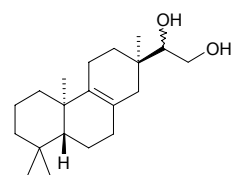
$C_{20}H_{34}O_2$  (306.49). mp 89~90°C,  $[\alpha]_D^{22} = +57.60^\circ$  ( $c = 1.03$ ,  $CHCl_3$ ). Source: JIAO NIAN XIANG CHA CAI *Isodon glutinosa*. Ref: 4067.

**8792 Glutinosin A**

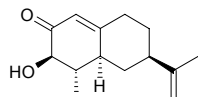
$C_{20}H_{34}O_2$  (306.49). mp 190°C. Source: JIAO NIAN XIANG CHA CAI *Isodon glutinosa*. Ref: 4067.

**8793 Glutinosin B**

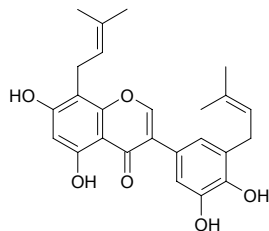
$C_{20}H_{34}O_2$  (306.49).  $[\alpha]_D = +59.6^\circ$ . Source: JIAO NIAN XIANG CHA CAI *Isodon glutinosa*. Ref: 4067.

**8794 Glutinosone**

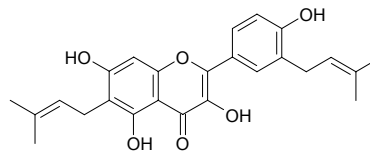
[55051-94-0]  $C_{14}H_{20}O_2$  (220.31). Pharm: Antifungal. Source: JIAO YAN CAO *Nicotiana glutinosa*. Ref: 658.

**8795 Glyarallin B**

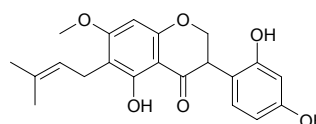
$C_{25}H_{26}O_6$  (422.48). Source: GAN CAO *Glycyrrhiza Uralensis*. Ref: 2431.

**8796 Glyasperin A**

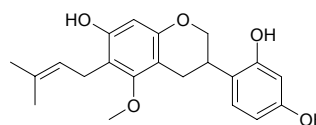
$C_{25}H_{26}O_6$  (422.48). Source: CU MAO GAN CAO *Glycyrrhiza aspera*. Ref: 2431.

**8797 Glyasperin B**

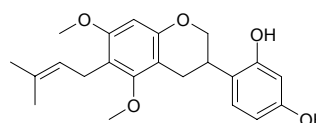
$C_{21}H_{22}O_6$  (370.41). Source: CU MAO GAN CAO *Glycyrrhiza aspera*. Ref: 2431.

**8798 Glyasperin C**

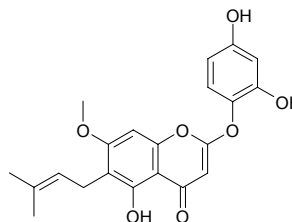
$C_{21}H_{24}O_5$  (356.42). Source: CU MAO GAN CAO *Glycyrrhiza aspera*. Ref: 2431.

**8799 Glyasperin D**

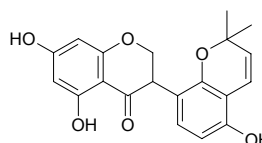
$C_{22}H_{26}O_5$  (370.45). Source: CU MAO GAN CAO *Glycyrrhiza aspera*. Ref: 2431.

**8800 Glyasperin E**

$C_{21}H_{20}O_7$  (384.39). Source: CU MAO GAN CAO *Glycyrrhiza aspera*. Ref: 2431.

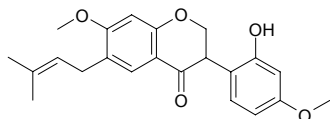
**8801 Glyasperin F**

$C_{20}H_{18}O_6$  (354.36). Source: CU MAO GAN CAO *Glycyrrhiza aspera*. Ref: 2431.

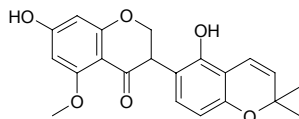


**8802 Glyasperin K**

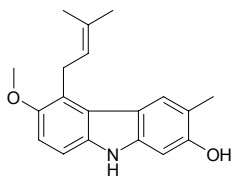
$C_{22}H_{24}O_5$  (368.43). Source: CU MAO GAN CAO *Glycyrrhiza aspera*. Ref: 2431.

**8803 Glyasperin M**

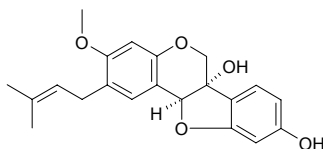
$C_{21}H_{20}O_6$  (368.39). Source: CU MAO GAN CAO *Glycyrrhiza aspera*. Ref: 2431.

**8804 Glybomine B**

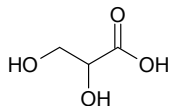
$C_{19}H_{21}NO_2$  (295.38). Pharm: Anti-HIV ( $CC_{50} = 13.62\mu\text{g/mL}$ ,  $IC_{50} = 9.73\mu\text{g/mL}$ ,  $SI = 1.40$ ; control AZT,  $CC_{50} = 794.2\mu\text{g/mL}$ ,  $IC_{50} = 0.131\mu\text{g/mL}$ ,  $SI = 6100$ ). Source: MENG DA NA SHAN XIAO JU *Glycosmis montana* (twig and leaf). Ref: 5266.

**8805 Glyceollin IV**

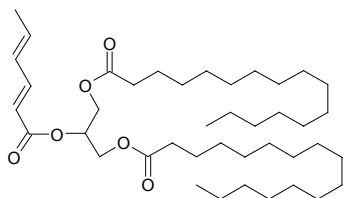
[69393-94-8]  $C_{21}H_{22}O_5$  (354.41). Not crystalline. Pharm: Antifungal. Source: HEI DA DOU *Glycine max*. Ref: 661.

**8806 D-Glyceric acid**

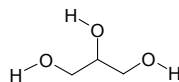
[600-19-1]  $C_3H_6O_4$  (106.08). Pharm: Diuretic (rbt). Source: CAN DOU *Vicia faba*, CAN DOU JIA KE *Vicia faba*, CAN DOU JING *Vicia faba*, CAN DOU YE *Vicia faba*, PU<sup>(2)</sup> TAO *Vitis vinifera*, PU TAO TENG YE *Vitis vinifera*, YI ZHU QIAN MA *Urtica dioica*. Ref: 6, 658, 660.

**8807 Glyceride-1,3-dipalmito-2-sorbate**

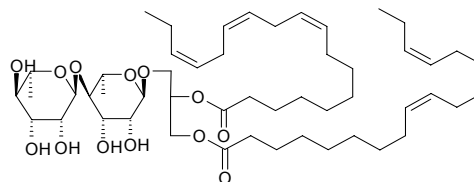
$C_{41}H_{74}O_6$  (663.04). Colorless acicular crystals, mp 62.0–62.5°C (petroleum spirit–acetic ester). Source: DI SHAO GUA *Cynanchum thesioides*. Ref: 236.

**8808 Glycerol**

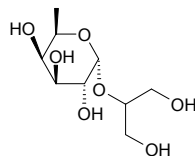
[56-81-5]  $C_3H_8O_3$  (92.10). mp 17.8°C, bp 290°C (dec). Pharm: Vasodilator. Source: BAI YAO ZI *Stephania cepharantha*, JIU Liquor, SHI LI ZI *Aleurites moluccana*, SHI LIU GEN *Punica granatum*, SHI LUO ZI *Anethum graveolens* (fruit). Ref: 6, 4177.

**8809 Glycerol- $\alpha,\beta$ -dilinolenate- $\alpha'$ -rhamno-rhamnoside**

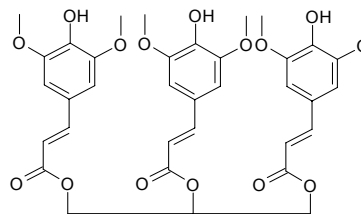
$C_{51}H_{84}O_{13}$  (905.23). White powder. Source: SU MI *Setaria italica*. Ref: 2120.

**8810 Glycerol 2-O- $\alpha$ -L-fucopyranoside**

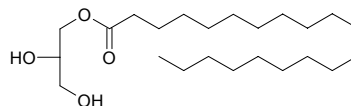
$C_9H_{18}O_7$  (238.24). Source: SHI LUO ZI *Anethum graveolens* (fruit). Ref: 4177.

**8811 Glycerol sinapate**

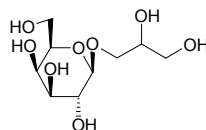
$C_{36}H_{38}O_{15}$  (710.70). Source: LAI FU ZI *Raphanus sativus*. Ref: 6.

**8812 Glyceryl-1-eicosanoate**

$C_{23}H_{46}O_4$  (386.62). White amorphous powder. Source: DUO CI HUANG HUA REN *Sida spinosa*. Ref: 2043.

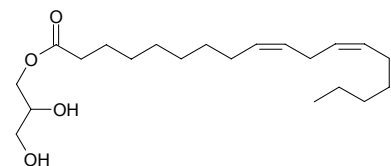
**8813 (2R)-1-O-Glyceryl- $\beta$ -D-galactoside**

$C_9H_{18}O_8$  (254.24). Amorphous white powder,  $[\alpha]_D = -7.5^\circ$  ( $c = 0.90$ ,  $H_2O$ ). Source: FEI YUE GUO *Feijoa sellowiana* (leaf). Ref: 3878.

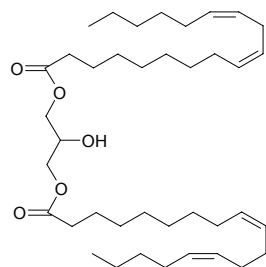


**8814 Glyceryl linolenate I**

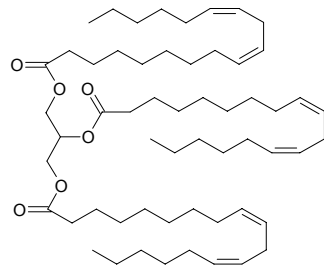
1-*O*-(9*Z*,12*Z*-Octadecadienoyl) glycerol C<sub>21</sub>H<sub>38</sub>O<sub>4</sub> (354.53). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +0.1° (*c* = 0.5, CHCl<sub>3</sub>), mp ( $\beta$ ) 15.7°C, ( $\beta'$ ) -13.5°C. **Pharm:** COX-1 inhibitor (IC<sub>50</sub> = 13.3µg/mL, control *trans*-Resveratrol, IC<sub>50</sub> = 0.25µg/mL)<sup>[5030]</sup>, COX-2 inhibitor (IC<sub>50</sub> = 0.18µg/mL, control *trans*-Resveratrol, IC<sub>50</sub> = 0.30µg/mL)<sup>[5030]</sup>; cytotoxic inactive (*in vitro*, LNCaP, IC<sub>50</sub> > 100µmol/L)<sup>[4607]</sup>. **Source:** LANG DANG ZI *Hyoscyamus niger* (seed: yield = 0.004%dw), LIAN YE TONG *Hernandia Sonora* [Syn. *Hernandia ovigera*] (seed), YU ZHI ZI *Akebia quinata*. **Ref:** 6, 4607, 5030.

**8815 Glyceryl linolenate II**

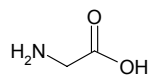
Dilinolenin C<sub>39</sub>H<sub>68</sub>O<sub>5</sub> (616.97). mp -12.3°C. **Source:** YU ZHI ZI *Akebia quinata*. **Ref:** 6.

**8816 Glyceryl linolenate III**

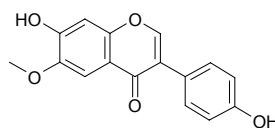
Trilinoleyl glyceride [537-40-6] C<sub>57</sub>H<sub>98</sub>O<sub>6</sub> (879.41). **Source:** BAI SU ZI *Perilla frutescens*, YU ZHI ZI *Akebia quinata*, ZANG SAN QI *Panax pseudo-ginseng*. **Ref:** 6, 743.

**8817 Glycine**

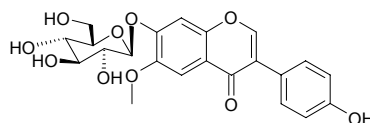
Aminoethanoic acid [56-40-6] C<sub>2</sub>H<sub>5</sub>NO<sub>2</sub> (75.07). mp 262°C (dec). **Pharm:** Metabolic intermediate. **Source:** BAN XIA *Pinellia ternata* (dried tuber: content scope of 4 origins = 0.72%~1.05%, mean content = 0.91%)<sup>[5521]</sup>, CHUAN DANG SHEN *Codonopsis tangshen*, DANG SHEN *Codonopsis pilosula*, GOU QI ZI *Lycium chinense*, LONG KUI *Solanum nigrum*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], QIU HUA DANG SHEN *Codonopsis subglobosa*, SU HUA DANG SHEN *Codonopsis pilosula* var. *modesta* [Syn. *Codonopsis modesta*]. **Ref:** 6, 658, 660, 5521.

**8818 Glycitein**

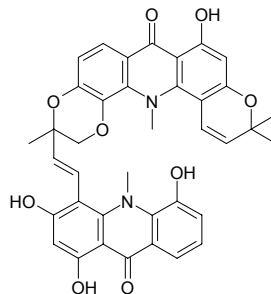
[40957-83-3] C<sub>16</sub>H<sub>12</sub>O<sub>5</sub> (284.27). mp 311~313°C (90% ethanol). **Pharm:** Antihemolytic; lipoxygenase inhibitor; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>. **Source:** DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.0025%dw)<sup>[4630]</sup>, HEI DA DOU *Glycine max*. **Ref:** 661, 4415, 4630.

**8819 Glycitin**

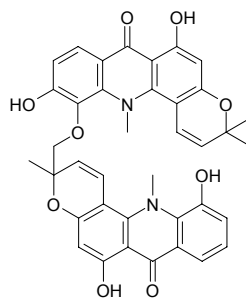
Glycitein-7-*O*- $\beta$ -D-glucoside [40246-10-4] C<sub>22</sub>H<sub>22</sub>O<sub>10</sub> (446.41). **Source:** DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.0020%dw). **Ref:** 4630.

**8820 Glycobismine F**

C<sub>38</sub>H<sub>32</sub>N<sub>2</sub>O<sub>9</sub> (660.69). Yellow oil, [ $\alpha$ ]<sub>D</sub> = 0° (*c* = 0.174, CHCl<sub>3</sub>). **Source:** SHAN XIAO JU *Glycosmis citrifolia* (root). **Ref:** 4270.

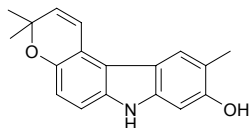
**8821 Glycobismine G**

C<sub>38</sub>H<sub>32</sub>N<sub>2</sub>O<sub>9</sub> (660.69). Yellow oil, [ $\alpha$ ]<sub>D</sub> = 0° (*c* = 0.13, CHCl<sub>3</sub>). **Source:** SHAN XIAO JU *Glycosmis citrifolia* (root). **Ref:** 4270.

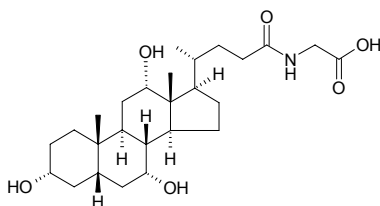


**8822 Glycoborinine**

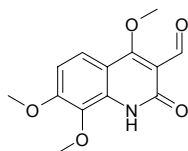
$C_{18}H_{17}NO_2$  (279.34). **Pharm:** Anti-HIV ( $CC_{50} = 20.69\mu\text{g/mL}$ ,  $IC_{50} = 4.47\mu\text{g/mL}$ ,  $SI = 4.63$ ; control AZT,  $CC_{50} = 794.2\mu\text{g/mL}$ ,  $IC_{50} = 0.131\mu\text{g/mL}$ ,  $SI = 6100$ ). **Source:** MENG DA NA SHAN XIAO JU *Glycosmis montana* (twig and leaf). **Ref:** 5266.

**8823 Glycocholic acid**

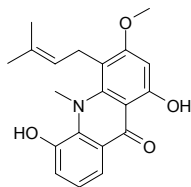
[475-31-0]  $C_{26}H_{43}NO_6$  (465.64). mp 165~168°C (anhydrous), mp 230~240°C (sodium salt). **Source:** NIU DAN *Bos taurus domesticus*; *Bubalus bubalis*, NIU HUANG *Bos taurus domesticus*; *Bubalus bubalis* (gallstone: mean content = 0.26%). **Ref:** 6, 5508.

**8824 Glycoctritidine**

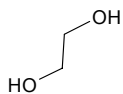
$C_{13}H_{13}NO_5$  (263.25). **Pharm:** Cytotoxic ( $P_{388}$  cell line,  $ED_{50} = 9.2\mu\text{g/mL}$ , control Mithramycin,  $ED_{50} = 0.06\mu\text{g/mL}$ ; HT29,  $ED_{50} = 42.1\mu\text{g/mL}$ , Mithramycin,  $ED_{50} = 0.07\mu\text{g/mL}$ ; A549,  $ED_{50} = 0.52\mu\text{g/mL}$ , Mithramycin,  $ED_{50} = 0.08\mu\text{g/mL}$ ). **Source:** SI ROU TUO GUO YE MI ZHU YU *Melicope semecarpifolia*. **Ref:** 5405.

**8825 Glycoctritine I**

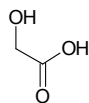
$C_{20}H_{21}NO_4$  (339.39). **Source:** DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). **Ref:** 3075.

**8826 Glycol**

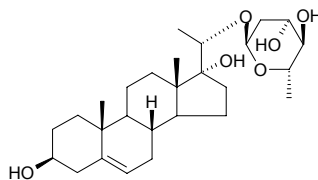
Ethandiol [107-21-1]  $C_2H_6O_2$  (62.07). mp -11.5°C, bp 197°C. **Source:** XI GUA *Citrullus vulgaris* [Syn. *Citrullus lanatus*]. **Ref:** 6.

**8827 Glycolic acid**

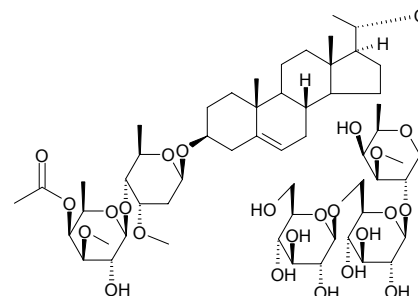
Hydroxyacetic acid [79-14-1]  $C_2H_4O_3$  (76.05). mp 80°C. **Pharm:** Irritant (to skin and mucosa). **Source:** GAN ZHE *Saccharum sinensis*, HAN QIN *Apium graveolens*, MENG GU SHAN LUO BO *Scabiosa comosa*. **Ref:** 6, 658.

**8828 Glycoside E**

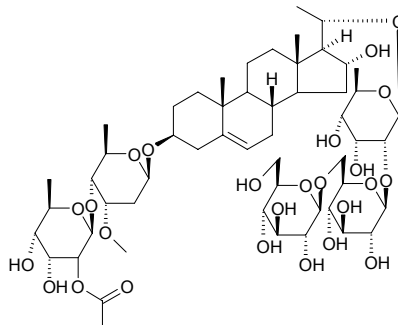
$C_{27}H_{44}O_6$  (464.65). mp 239~240°C. **Source:** XIANG JIA PI *Periploca sepium*. **Ref:** 6.

**8829 Glycoside H<sub>1</sub>**

3-*O*-[4-*O*-Acetyl-3-*O*-methyl- $\beta$ -*D*-fucopyranosyl-(1 $\rightarrow$ 4)-2,6-dideoxy-3-*O*-methyl- $\beta$ -*D*-ribo-hexopyranoside] 20-*O*-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)-3-*O*-methyl- $\beta$ -*D*-fucopyranoside] [37074-77-4]  $C_{56}H_{92}O_{24}$  (1149.34). mp 182°C. **Source:** XIANG JIA PI *Periploca sepium*. **Ref:** 6.

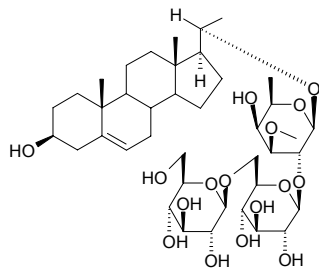
**8830 Glycoside H<sub>2</sub>**

$C_{54}H_{88}O_{25}$  (1137.29). mp 191~192°C,  $[\alpha]_D = -25.9^\circ$ . **Source:** XIANG JIA PI *Periploca sepium*. **Ref:** 2498.

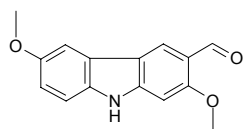


**8831 Glycoside K (Periplocae)**

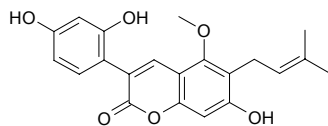
$C_{40}H_{66}O_{16}$  (802.96). mp 240~241°C. Source: XIANG JIA PI *Periploca sepium*.  
Ref: 6.

**8832 Glycozolidal**

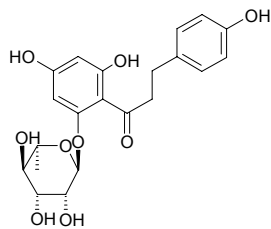
2,6-Dimethoxy-9*H*-Carbazole-3-carboxaldehyde; 2,6-Dimethoxy-3-formyl-carbazole; *O*-Methylansine. [51971-09-6]  $C_{15}H_{13}NO_3$  (255.28). Source: SHAN HUANG PI *Clausena excavata*. Ref: 703.

**8833 Glycoumarin**

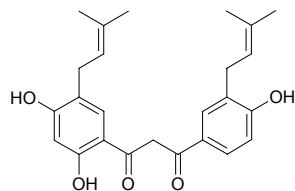
[94805-82-0]  $C_{21}H_{20}O_6$  (368.39). Pharm: Antibacterial (mutational *Streptococcus*, MIC = 12.5µg/mL; *Staphylococcus aureus*, MIC = 3.13µg/mL; *Bacillus subtilis*, MIC = 6.25µg/mL); antifungal (*Candida* sp., MIC = 50µg/mL; *Saccharomyces cerevisiae*, MIC = 25µg/mL); cAMP phosphodiesterase inhibitor (IC<sub>50</sub> = 7µmol/L); free radical scavenger (IC<sub>50</sub> = 41µmol/L); anti-HIV. Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 2, 1678, 1680, 1701, 1702.

**8834 Glycyphyllin**

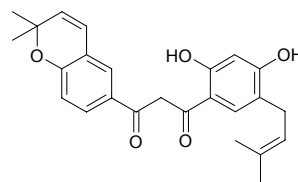
[19253-17-9]  $C_{21}H_{24}O_9$  (420.42). Pharm: Bitter-sweet taste. Source: *Smilax* sp. Ref: 658.

**8835 Glycyrdione A**

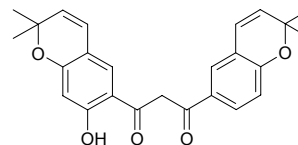
$C_{25}H_{28}O_5$  (408.50). Source: ZHANG GUO GAN CAO *Glycyrrhiza inflata*. Ref: 2431.

**8836 Glycyrdione B**

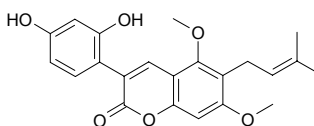
$C_{25}H_{26}O_5$  (406.48). Source: ZHANG GUO GAN CAO *Glycyrrhiza inflata*. Ref: 2431.

**8837 Glycyrdione D**

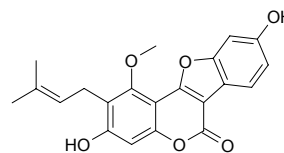
$C_{25}H_{24}O_5$  (404.47). Source: *Glycyrrhiza* sp. Ref: 2431.

**8838 Glycyrin**

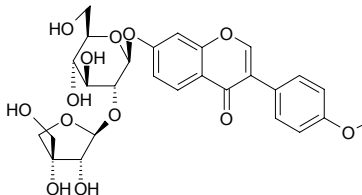
[66056-18-6]  $C_{22}H_{22}O_6$  (382.42). Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 2.

**8839 Glycyrol**

Neoglycyrol [23013-84-5]  $C_{21}H_{18}O_6$  (366.37). Yellowish acicular crystals, mp 263~265°C; mp 243.5~245.0°C. Source: CU MAO GAN CAO *Glycyrrhiza aspera*, GAN CAO *Glycyrrhiza uralensis*. Ref: 2, 6, 181, 660, 1521.

**8840 Glycyroside**

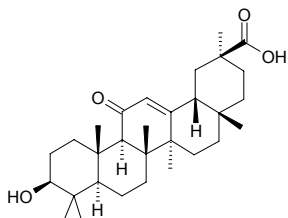
[125310-04-5]  $C_{27}H_{30}O_{13}$  (562.53). Yellowish powder, mp 126~128°C. Source: HUANG GAN CAO *Glycyrrhiza kansuensis*. Ref: 133.

**8841 Glycyrrhetic acid**

[471-53-4]  $C_{30}H_{46}O_4$  (470.70). mp 297~298°C. Pharm: Adrenal cortex hormoneoid (desoxycortoneoid action); antiallergic; antibacterial (cooperates with berberine to inhibit *Staphylococcus aureus*, *in vitro*); antineoplastic (rat, transplanting Oberling-Guerin myeloma); anti-inflammatory (rat, tampon granuloma model, formaldehyde edema model, tuberculin reaction model, subcutaneous granuloma model, and swollen foot model caused by carrageenan); antiulcerative (pylorus-ligated rat); reduces serum bilirubin and

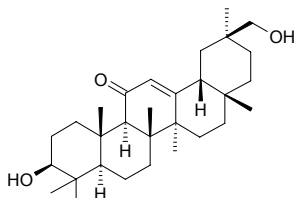


enhances output of bilirubin in urine (choledoch-ligated rat and rbt); toxin (gpg, inhibits thyroid function and reduces basal metabolism). **Source:** CU MAO GAN CAO *Glycyrrhiza aspera* (root and rhizome: content = 0.72%)<sup>[15]</sup>, GAN CAO *Glycyrrhiza uralensis* (root and rhizome: mean content of 3 origins = 4.93%)<sup>[15]</sup>, GUANG GUO GAN CAO *Glycyrrhiza glabra* (root and rhizome: content = 3.40%)<sup>[15]</sup>, HUANG GAN CAO *Glycyrrhiza kansuensis* (root and rhizome: content = 4.16%)<sup>[15]</sup>, YUN NAN GAN CAO *Glycyrrhiza yunnanensis* (root and rhizome: content = 2.52%)<sup>[15]</sup>, ZHANG GUO GAN CAO *Glycyrrhiza inflata* (root and rhizome: content = 3.72%)<sup>[15]</sup>. **Ref:** 4, 15, 658, 5501.



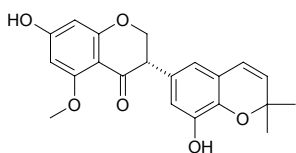
#### 8842 Glycyrrhetol

$C_{30}H_{48}O_3$  (456.72). **Source:** GAN CAO *Glycyrrhiza uralensis*. **Ref:** 2.



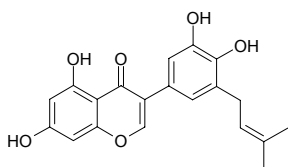
#### 8843 Glycyrrhisoflavanone

[116709-69-4]  $C_{21}H_{20}O_6$  (368.39). **Source:** GAN CAO *Glycyrrhiza uralensis*. **Ref:** 2.



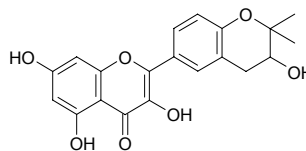
#### 8844 Glycyrrhisoflavone

[116709-70-7]  $C_{20}H_{18}O_6$  (354.36). **Pharm:** Anti-HIV (20 $\mu$ g/mL, inhibits formation of giant-cell); free radical scavenger ( $EC_{50}$  = 38 $\mu$ mol/L); xanthinoxidase inhibitor ( $IC_{50}$  = 53 $\mu$ mol/L); monoamine oxidase inhibitor ( $IC_{50}$  = 95 $\mu$ mol/L). **Source:** GAN CAO *Glycyrrhiza uralensis*. **Ref:** 2, 1679, 1680, 1681, 1682.



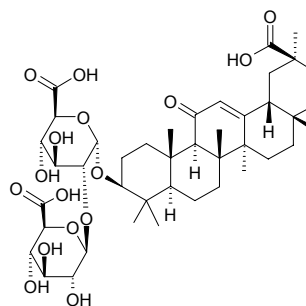
#### 8845 Glycyrrhiza-flavonol A

[197304-01-1]  $C_{20}H_{18}O_7$  (370.36). Yellow acicular crystals (methanol), mp 163°C,  $[\alpha]_D = 0^\circ$  ( $c = 1$ , methanol). **Pharm:** DPPH scavenger ( $EC_{50}$  = 37 $\mu$ mol/L). **Source:** GAN CAO *Glycyrrhiza uralensis*. **Ref:** 1001.



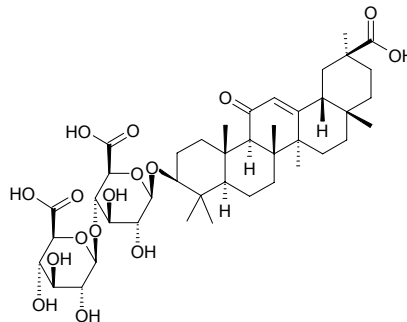
#### 8846 Glycyrrhizic acid

Glycyrrhizin; Glycyrrhetic acid glycoside; Glycyrrhizic acid [1405-86-3]  $C_{42}H_{62}O_{16}$  (822.95). White acicular crystals, mp 220°C (dec),  $[\alpha]_D^{17} = +46.2^\circ$  (ethanol), easily soluble in water, ethanol, insoluble in ether.<sup>[5507]</sup> **Pharm:** Adrenal cortex hormoneoid; antiallergic; antineoplastic; anti-HIV (0.5mg/mL InRt = 98%, 0.125mg/mL InRt = 50%); anti-inflammatory; antiviral (chickenpox virus, herpes zoster virus); antihepatotoxin (rat with  $CCl_4$  poisoning, reduces excess SGPT); reduces accumulation of trilaurin in liver; reduces serum bilirubin and increases output of bilirubin in urine (rbt and rat, ligated in common bile duct); antihypercholesterolemic (reduces the level of cholesterol in serum); antihypertensive; smooth muscle relaxant (*in vitro* ileum in rbt and trachea in gpg, caused by histamine, acetylcholine and SRSA). **Source:** CU MAO GAN CAO *Glycyrrhiza aspera*, GAN CAO *Glycyrrhiza uralensis* (root and rhizome: content scope of 14 origins = 2.60%~8.44%, mean content = 5.92%)<sup>[15, 5508]</sup>, GUANG GUO GAN CAO *Glycyrrhiza glabra* (root and rhizome: mean content = 4.22%)<sup>[5508]</sup>, HUANG GAN CAO *Glycyrrhiza kansuensis*, XIANG SI ZI *Abrus precatorius*, ZHANG GUO GAN CAO *Glycyrrhiza inflata* (root and rhizome: mean content = 4.59%)<sup>[15, 5508]</sup>. **Ref:** 4, 15, 658, 660, 5501, 5507, 5508.



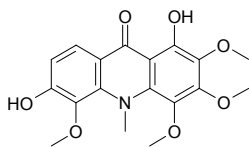
#### 8847 Glycyrsaponin

3 $\beta$ -Hydroxy-11-oxo-olean-12-en-30-oic acid-3-*O*- $\beta$ -D-glucuronopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucuronopyranoside [137476-70-1]  $C_{42}H_{62}O_{16}$  (822.95). White powder, mp 288°C,  $[\alpha]_D^{18} = +22.5^\circ$  ( $c = 0.062$ , methanol). **Source:** HUANG GAN CAO *Glycyrrhiza kansuensis*. **Ref:** 195.

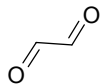


**8848 Glyfoline**

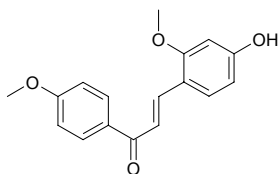
$C_{18}H_{19}NO_7$  (361.35). **Pharm:** Antineoplastic (caused tumor cell death selectively, without showing any cytotoxicity to normal fibroblasts). **Source:** SHAN XIAO JU *Glycosmis citrifolia*. **Ref:** 5042.

**8849 Glyoxal**

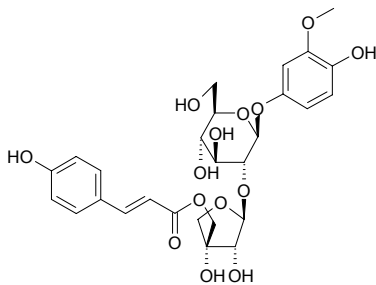
[107-22-2]  $C_2H_2O_2$  (58.04). **Source:** SHENG JIANG *Zingiber officinale*. **Ref:** 2.

**8850 Glypallichalcone**

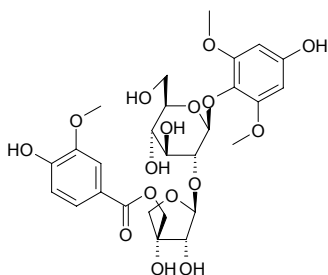
4-Hydroxy-2,4'-dimethoxychalcone  $C_{17}H_{16}O_4$  (284.31). Yellow columnar Crystals, mp 140~142°C. **Source:** CI GUO GAN CAO *Glycyrrhiza pallidiflora*. **Ref:** 243.

**8851 Glypentoside A**

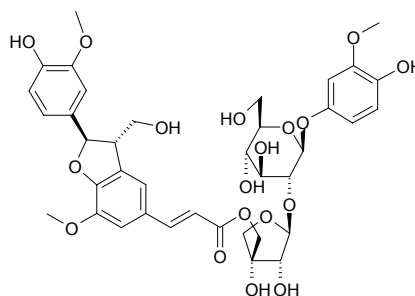
Methoxyquinol 4-*O*-[(5-*O*-*trans-p*-coumaroyl)- $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside]  $C_{27}H_{32}O_{14}$  (580.55). Amorphous powder,  $[\alpha]_D^{25} = -7.5^\circ$  ( $c = 0.33$ , MeOH). **Source:** JIU BING YE *Glycosmis pentaphylla* (stem). **Ref:** 4424.

**8852 Glypentoside B**

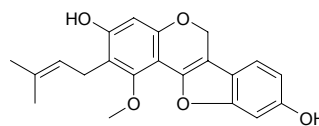
4-Demethylantiariol 4-*O*-[(3-methoxy-4-hydroxy-benzoyl)- $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside]  $C_{27}H_{34}O_{16}$  (614.56). Amorphous powder,  $[\alpha]_D^{25} = -60.7^\circ$  ( $c = 0.48$ , MeOH). **Source:** JIU BING YE *Glycosmis pentaphylla* (stem). **Ref:** 4424.

**8853 Glypentoside C**

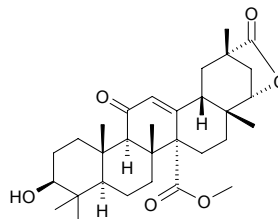
$C_{38}H_{44}O_{18}$  (788.76). Amorphous powder,  $[\alpha]_D^{25} = -49.7^\circ$  ( $c = 0.84$ , MeOH). **Source:** JIU BING YE *Glycosmis pentaphylla* (stem). **Ref:** 4424.

**8854 Glyrallin A**

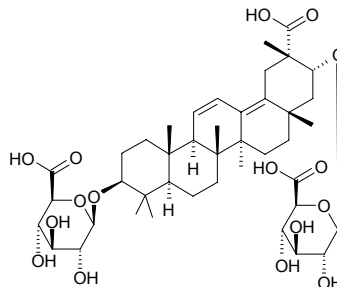
$C_{21}H_{20}O_5$  (352.39). **Source:** GAN CAO *Glycyrrhiza Uralensis*. **Ref:** 2431.

**8855 Glyuranolide**

3 $\beta$ ,22 $\alpha$ -Dihydroxy-11-oxo- $\Delta^{12}$ -olean-ene-27 $\alpha$ -methoxy carbonyl-29-oic acid (29,22 $\alpha$ ) lactone [123914-44-3]  $C_{31}H_{44}O_6$  (512.69). White rhomboid crystals, mp 301~303°C,  $[\alpha]_D^{14} = +46^\circ$  ( $c = 0.087$ ). **Source:** GAN CAO *Glycyrrhiza uralensis*. **Ref:** 128, 660.

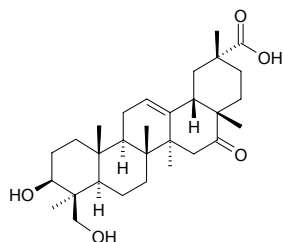
**8856 Glyyunnanprosopogenin D**

Oleana-11,13(18)-dien-29-oic acid 3 $\beta$ ,21 $\alpha$ -di-*O*- $\beta$ -*D*-glucuronopyranoside [139979-69-4]  $C_{42}H_{62}O_{16}$  (822.95). **Source:** YUN NAN GAN CAO *Glycyrrhiza yunnanensis*. **Ref:** 170.

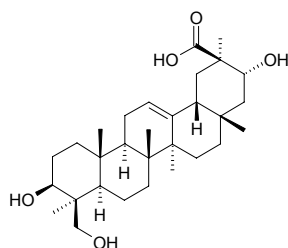


**8857 Glyunnansapogenin A**

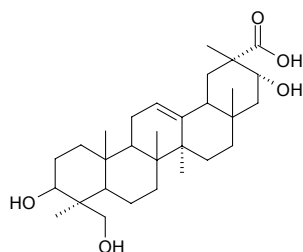
3 $\beta$ ,24-Dihydroxy-16-oxo-olean-12-en-29-oic acid [131137-98-9] C<sub>30</sub>H<sub>46</sub>O<sub>5</sub> (486.70). Colorless crystals. Source: YUN NAN GAN CAO *Glycyrrhiza yunnanensis*. Ref: 160.

**8858 Glyunnansapogenin B**

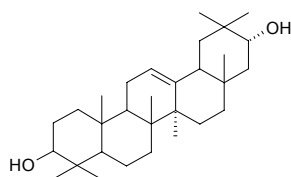
3 $\beta$ ,21 $\alpha$ ,24-Trihydroxy-olean-12-en-30-oic acid [20528-70-5] C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). Colorless crystals, mp 287~289°C. Source: YUN NAN GAN CAO *Glycyrrhiza yunnanensis*. Ref: 160.

**8859 Glyunnansapogenin B<sub>1</sub>**

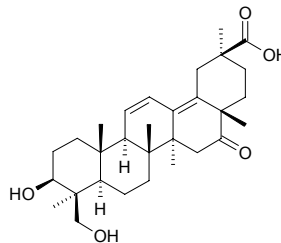
C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). White acicular crystals, mp 303~305°C. Source: YUN NAN GAN CAO *Glycyrrhiza yunnanensis*. Ref: 321.

**8860 Glyunnansapogenin B<sub>2</sub>**

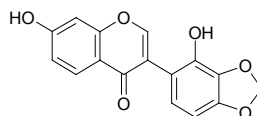
C<sub>30</sub>H<sub>50</sub>O<sub>2</sub> (442.73). White powder, mp 224~228°C. Source: YUN NAN GAN CAO *Glycyrrhiza yunnanensis*. Ref: 321.

**8861 Glyunnansapogenin F**

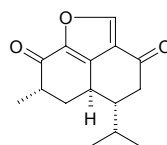
3 $\beta$ ,24 $\alpha$ -Dihydroxy-16-oxo-oleana-11,13(18)-dien-30-oic acid [139953-40-5] C<sub>30</sub>H<sub>44</sub>O<sub>5</sub> (484.68). Source: YUN NAN GAN CAO *Glycyrrhiza yunnanensis*. Ref: 170, 1521.

**8862 Glyzaglabrin**

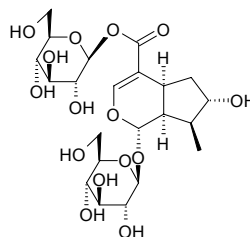
[65242-64-0] C<sub>16</sub>H<sub>10</sub>O<sub>6</sub> (298.25). Source: GAN CAO *Glycyrrhiza uralensis*. Ref: 2, 1521.

**8863 Gmelofuran**

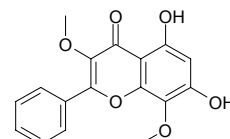
[70863-78-4] C<sub>15</sub>H<sub>18</sub>O<sub>3</sub> (246.31). Crystals, mp 122~123°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -900° (CHCl<sub>3</sub>). Source: CHEN XIANG *Aquilaria agallocha*, GAO HONG JIN *Hibiscus elatus*, TAI WAN FU RONG *Hibiscus taiwanensis*, YUN NAN SHI ZI *Gmelina arborea*. Ref: 13, 1521, 2529.

**8864 Gmephiloside**

1-*O*-(8-Epi-loganoyl)- $\beta$ -*D*-glucopyranose C<sub>22</sub>H<sub>34</sub>O<sub>15</sub> (538.51). White amorphous powder. Source: FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts). Ref: 3954.

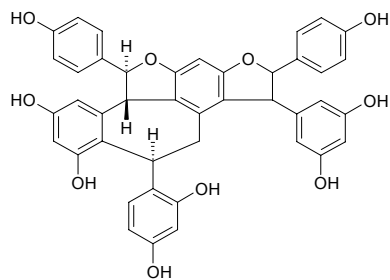
**8865 Gnaphaliin**

C<sub>17</sub>H<sub>14</sub>O<sub>6</sub> (314.30). Pharm: Anti-inflammatory<sup>[4415]</sup>. Source: YI DA LI LA JU *Helichrysum italicum* Ref: 4415.

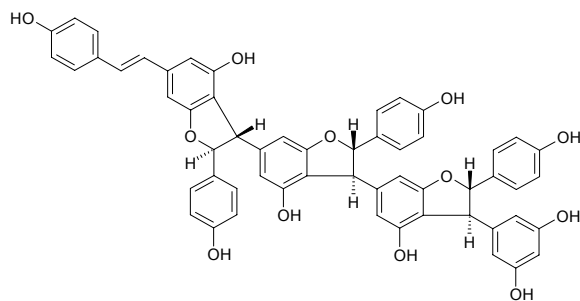


**8866 Gnemonol A**

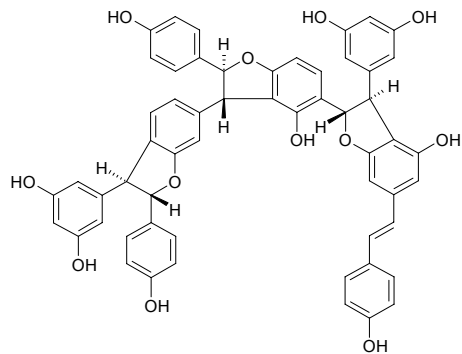
$C_{42}H_{32}O_{10}$  (696.72). White amorphous powder. Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon* (root). Ref: 4200.

**8867 Gnemonol B**

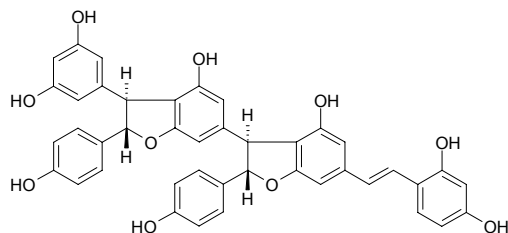
$C_{56}H_{42}O_{12}$  (906.95). White amorphous powder. Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon* (root). Ref: 4200.

**8868 Gnemonol C**

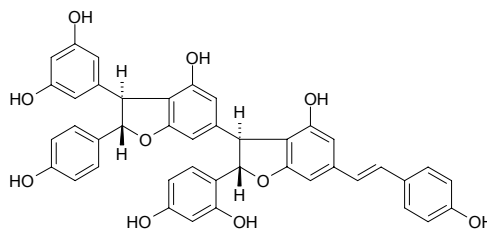
$C_{56}H_{42}O_{12}$  (906.95). White amorphous powder. Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon* (root). Ref: 4200.

**8869 Gnemonol D**

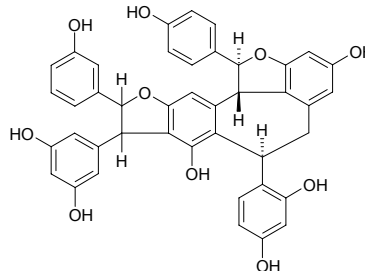
$C_{42}H_{32}O_{10}$  (696.72). White amorphous powder,  $[\alpha]_D = -22^\circ$  ( $c = 0.2$ , MeOH). Pharm: Antioxidant (super oxide scavenger,  $IC_{50} = 60\mu\text{mol/L}$ , control  $\epsilon$ -Viniferin,  $IC_{50} = 20\mu\text{mol/L}$ ; lipid peroxide inhibitory activity,  $IC_{50} > 100\mu\text{mol/L}$ , control  $\epsilon$ -Viniferin,  $IC_{50} = 33\mu\text{mol/L}$ ). Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon* (root; yield = 0.0023%dw). Ref: 4306.

**8870 Gnemonol E**

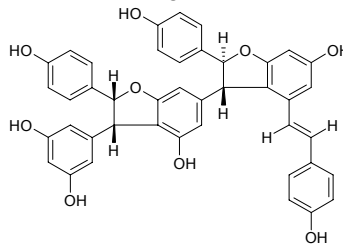
$C_{42}H_{32}O_{10}$  (696.72). White amorphous powder,  $[\alpha]_D = -14^\circ$  ( $c = 0.4$ , MeOH). Pharm: Antioxidant (super oxide scavenger,  $IC_{50} = 72\mu\text{mol/L}$ , control  $\epsilon$ -Viniferin,  $IC_{50} = 20\mu\text{mol/L}$ ; lipid peroxide inhibitory activity,  $IC_{50} = 47\mu\text{mol/L}$ , control  $\epsilon$ -Viniferin,  $IC_{50} = 33\mu\text{mol/L}$ ). Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon* (root; yield = 0.0040%dw). Ref: 4306.

**8871 Gnemonol F**

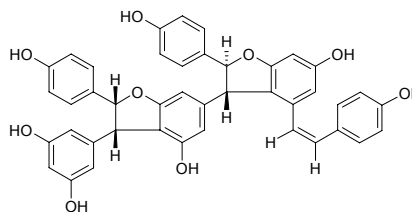
$C_{42}H_{32}O_{10}$  (696.72). White amorphous powder,  $[\alpha]_D = -18^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antioxidant (super oxide scavenger,  $IC_{50} = 13\mu\text{mol/L}$ , control  $\epsilon$ -Viniferin,  $IC_{50} = 20\mu\text{mol/L}$ ; lipid peroxide inhibitory activity,  $IC_{50} > 100\mu\text{mol/L}$ , control  $\epsilon$ -Viniferin,  $IC_{50} = 33\mu\text{mol/L}$ ). Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon* (root; yield = 0.0005%dw). Ref: 4306.

**8872 Gnemonol K**

$C_{42}H_{32}O_9$  (680.72). Colorless amorphous powder,  $[\alpha]_D = +6^\circ$  ( $c = 0.72$ , MeOH). Pharm: Antioxidant (superoxide anion scavenger,  $IC_{50} = 69\mu\text{mol/L}$ ; inhibits lipid peroxidation,  $IC_{50} = 19\mu\text{mol/L}$ ). Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon*. Ref: 2045.

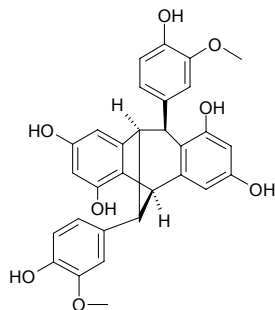
**8873 Gnemonol L**

$C_{42}H_{32}O_9$  (680.72). Colorless amorphous powder,  $[\alpha]_D = +23^\circ$  ( $c = 0.49$ , MeOH). Pharm: Antioxidant (superoxide anion scavenger,  $IC_{50} = 59\mu\text{mol/L}$ ; inhibits lipid peroxidation,  $IC_{50} = 7\mu\text{mol/L}$ ). Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon*. Ref: 2045.

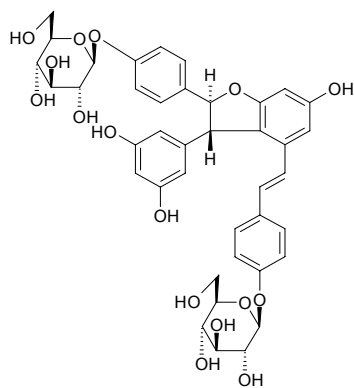


**8874 Gnemonol M**

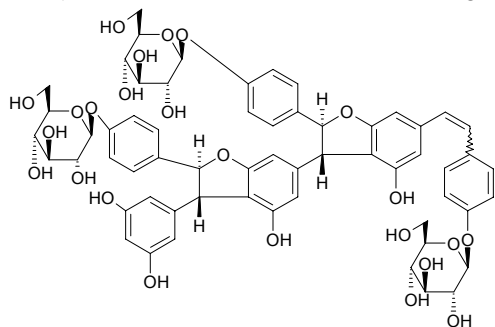
$C_{30}H_{26}O_8$  (514.54). Colorless amorphous powder,  $[\alpha]_D = -28^\circ$  ( $c = 0.12$ , MeOH). Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon*. Ref: 2045.

**8875 Gnemonoside E**

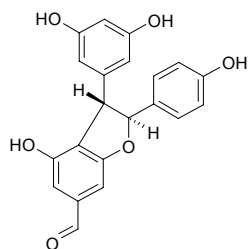
$C_{40}H_{42}O_{16}$  (778.77). Brown amorphous powder. Source: MA LAI XI YA MAI MA TENG *Gnetum gnemonoides* (stem). Ref: 4200.

**8876 Gnemonoside K**

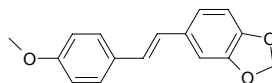
$C_{60}H_{62}O_{24}$  (1167.15). Colorless amorphous powder,  $[\alpha]_D = -36^\circ$  ( $c = 0.52$ , MeOH). Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon*. Ref: 2045.

**8877 Gnetal**

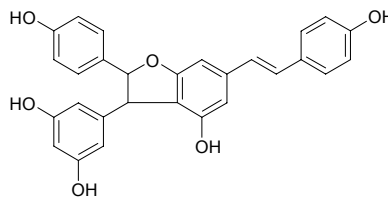
$C_{21}H_{16}O_6$  (364.36). White amorphous powder. Source: MA LAI XI YA MAI MA TENG *Gnetum gnemonoides* (stem). Ref: 4200.

**8878 Gnetin**

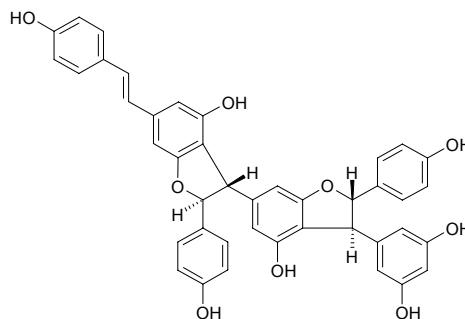
[56041-27-1]  $C_{16}H_{14}O_3$  (254.29). Crystals ( $CHCl_3$ -pet. ether), mp 121~122°C. Source: YIN DU MAI MA TENG *Gnetum ula*. Ref: 1521.

**8879 Gnetin C**

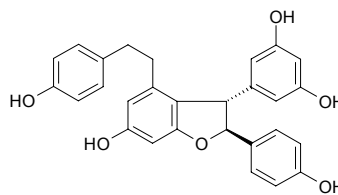
$C_{28}H_{22}O_6$  (454.48). Yellowish powder (acetone), mp 146~147°C. Source: AI DA HUANG *Rheum nanum*. Ref: 4807.

**8880 Gnetin E**

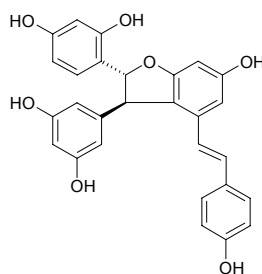
$C_{42}H_{32}O_9$  (680.72). Source: XIAN ZHOU MAI MA TENG *Gnetum gnemon* (root), MA LAI XI YA MAI MA TENG *Gnetum gnemonoides* (stem). Ref: 4200.

**8881 Gnetin F**

$C_{28}H_{24}O_6$  (456.50). Source: BAI SUI YE *Welwitschia mirabilis*. Ref: 2233, 2234.

**8882 Gnetuhainin A**

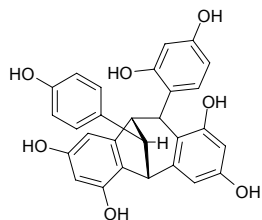
$C_{28}H_{22}O_7$  (470.48). Source: HAI NAN MAI MA TENG *Gnetum hainanense*. Ref: 2233, 2234.



**8883 Gnetuhainin C**

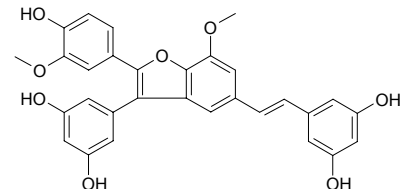
$C_{28}H_{22}O_7$  (470.48). Source: HAI NAN MAI MA TENG *Gnetum hainanense*.

Ref: 2233, 2234.

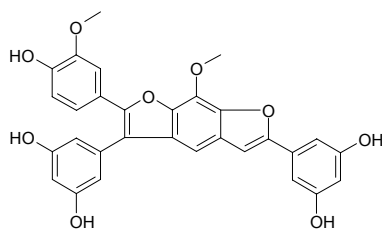
**8884 Gnetuhainin F**

$C_{30}H_{26}O_8$  (512.52). Source: HAI NAN MAI MA TENG *Gnetum hainanense*.

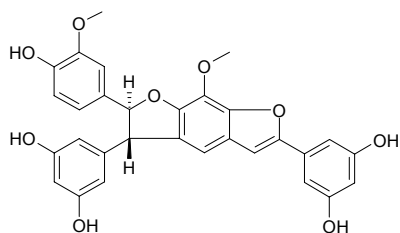
Ref: 2233, 2234.

**8885 Gnetuhainin G**

$C_{30}H_{22}O_9$  (526.50). Greenish amorphous powder,  $[\alpha]_D^{25} = 0^\circ$  ( $c = 0.084$ , MeOH). Source: HAI NAN MAI MA TENG *Gnetum hainanense*. Ref: 3995.

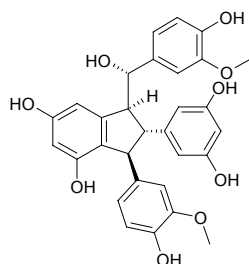
**8886 Gnetuhainin H**

$C_{30}H_{24}O_9$  (528.52). Yellowish amorphous powder,  $[\alpha]_D^{25} = +16.0^\circ$  ( $c = 0.072$ , MeOH). Source: HAI NAN MAI MA TENG *Gnetum hainanense*. Ref: 3995.

**8887 Gnetuhainin I**

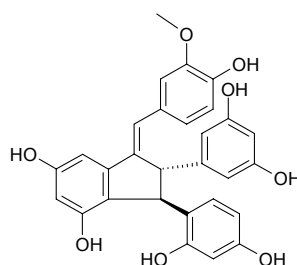
$C_{30}H_{28}O_9$  (532.55). Source: HAI NAN MAI MA TENG *Gnetum hainanense*.

Ref: 2234.

**8888 Gnetuhainin J**

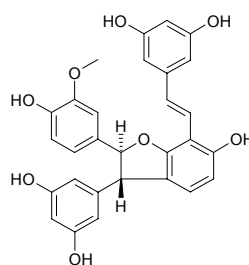
$C_{29}H_{24}O_8$  (500.51). Source: HAI NAN MAI MA TENG *Gnetum hainanense*.

Ref: 2234.

**8889 Gnetuhainin K**

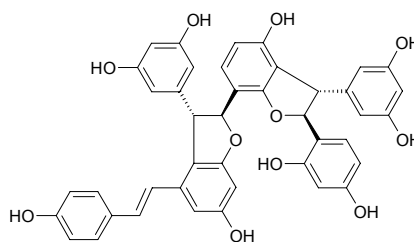
$C_{29}H_{24}O_8$  (500.51). Source: HAI NAN MAI MA TENG *Gnetum hainanense*.

Ref: 2234.

**8890 Gnetuhainin M**

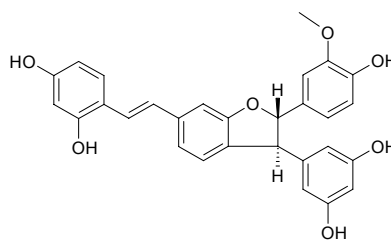
$C_{42}H_{32}O_{11}$  (712.72). Source: HAI NAN MAI MA TENG *Gnetum hainanense*.

Ref: 2233, 2234.

**8891 Gnetuhainin Q**

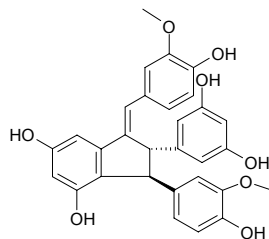
$C_{29}H_{24}O_7$  (484.51). Source: HAI NAN MAI MA TENG *Gnetum hainanense*.

Ref: 2234.

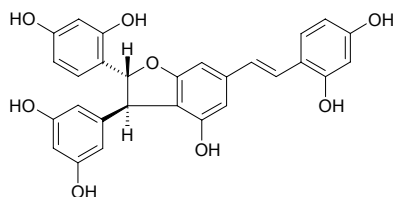


**8892 Gnetulin**

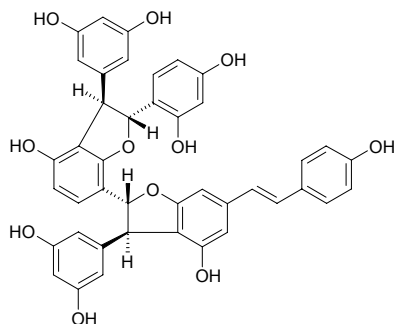
$C_{30}H_{26}O_8$  (514.54). Pale brownish amorphous solid. Source: XIAO YE MAI MA TENG *Gnetum parvifolium* [Syn. *Gnetum indicum*] (bark), YIN DU MAI MA TENG *Gnetum ula*. Ref: 2234, 3550.

**8893 Gnetumontanin A**

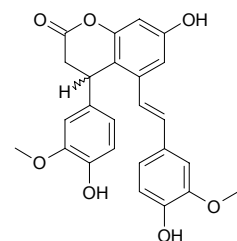
$C_{28}H_{22}O_8$  (486.48). Yellowish amorphous powder, mp 233~234°C,  $[\alpha]_D^{22} = +17.0^\circ$  ( $c = 0.10$ , MeOH). Source: DA ZI MAI MA TENG *Gnetum montanum* f. *megalocarpum*. Ref: 4936.

**8894 Gnetumontanin B**

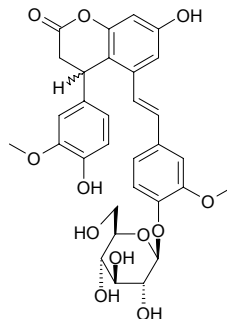
$C_{42}H_{32}O_{11}$  (712.72). Off-white amorphous powder, mp 209~210°C,  $[\alpha]_D^{22} = -16.0^\circ$  ( $c = 0.10$ , MeOH). Pharm: TNF- $\alpha$  inhibitor ( $IC_{50} = 1.49 \mu\text{mol/L}$ )<sup>[4936]</sup>. Source: DA ZI MAI MA TENG *Gnetum montanum* f. *megalocarpum*. Ref: 4936.

**8895 Gnetumontanin C**

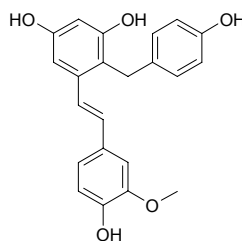
$C_{25}H_{22}O_7$  (434.45). Yellowish amorphous powder, mp 72~73°C,  $[\alpha]_D^{20} = 0^\circ$  ( $c = 0.04$ , MeOH). Source: DA ZI MAI MA TENG *Gnetum montanum* f. *megalocarpum*. Ref: 4936.

**8896 Gnetumontanin D**

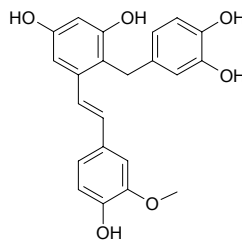
$C_{31}H_{32}O_{12}$  (596.59). Yellowish amorphous powder,  $[\alpha]_D^{20} = -24.0^\circ$  ( $c = 0.075$ , MeOH). Source: DA ZI MAI MA TENG *Gnetum montanum* f. *megalocarpum*. Ref: 4936.

**8897 Gnetupendin A**

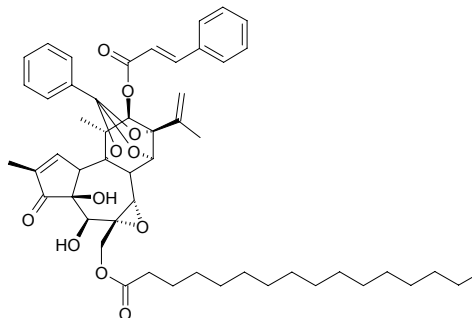
10-(4-Hydroxybenzyl)-isorhapontigenin  $C_{22}H_{20}O_5$  (364.40). Pale yellow solid. Source: CHUI ZI MAI MA TENG *Gnetum pendulum*. Ref: 5199.

**8898 Gnetupendin B**

10-(3,4-Dihydroxybenzyl)-isorhapontigenin  $C_{22}H_{20}O_6$  (380.40). Brown solid. Pharm: PGE<sub>2</sub> production inhibitor (mouse peritoneal macrophages, LPS-induced, 0.1  $\mu\text{mol/L}$ , InRt = 24.4%,  $P < 0.05$ ; control Meloxicam,  $IC_{50} = 0.0286 \mu\text{mol/L}$ ; may have cyclo-oxygenase-2 inhibition activity). Source: CHUI ZI MAI MA TENG *Gnetum pendulum*. Ref: 5199.

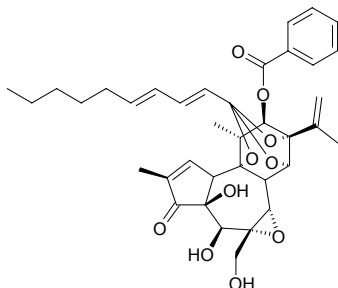
**8899 Gnidicin-20-palmitate**

$C_{52}H_{66}O_{11}$  (867.10). Amorphous powder,  $[\alpha]_D^{25} = +41.7^\circ$  ( $c = 0.56$ ,  $\text{CHCl}_3$ ). Source: YOU RUI XIANG *Daphne oleoides*. Ref: 2410.

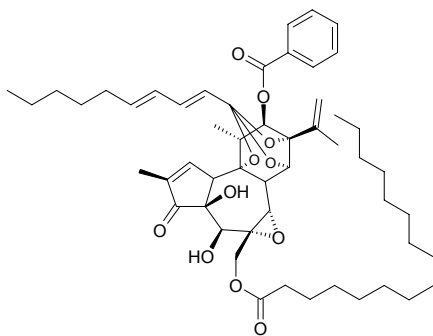


**8900 Gnidilatin**

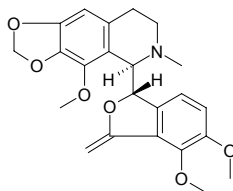
[60195-70-2] C<sub>37</sub>H<sub>44</sub>O<sub>10</sub> (648.76). Source: YOU RUI XIANG *Daphne oleoides*. Ref: 2410.

**8901 Gnidilatin 20-palmitate**

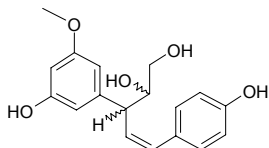
[60195-68-8] C<sub>53</sub>H<sub>74</sub>O<sub>11</sub> (887.17). Source: YOU RUI XIANG *Daphne oleoides*. Ref: 2410.

**8902 Gnoscopine**

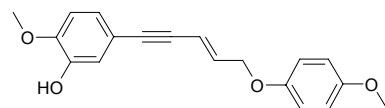
[6035-40-1] C<sub>23</sub>H<sub>25</sub>NO<sub>6</sub> (411.46). mp 232°C. Source: YA PIAN *Papaver somniferum*. Ref: 6.

**8903 Gobicusin A**

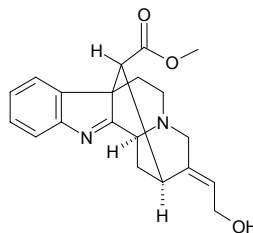
C<sub>18</sub>H<sub>20</sub>O<sub>5</sub> (316.36). Colorless gum, [α]<sub>D</sub><sup>21</sup> = +51.6° (c = 5.50, Me<sub>2</sub>CO). Source: GE BI TIAN MEN *Asparagus gobicus* (root). Ref: 4975.

**8904 Gobicusin B**

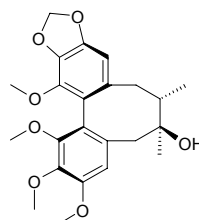
C<sub>19</sub>H<sub>18</sub>O<sub>4</sub> (310.35). White powder, mp 127–129°C (CHCl<sub>3</sub>), [α]<sub>D</sub><sup>21</sup> = –92.0° (c = 0.80, CHCl<sub>3</sub>). Source: GE BI TIAN MEN *Asparagus gobicus* (root). Ref: 4975.

**8905 Gomaline**

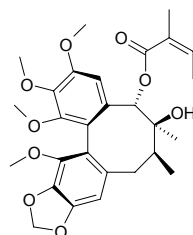
[89384-07-6] C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub> (338.41). Source: CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochnera rosea*]. Ref: 2.

**8906 Gomisin A**

Wuweizi alcohol B [58546-54-6] C<sub>23</sub>H<sub>28</sub>O<sub>7</sub> (416.48). mp 54–56°C, [α]<sub>D</sub><sup>22</sup> = +60.8° (c = 0.58, chloroform); mp 88–89°C, [α]<sub>D</sub> = +67.9°. Pharm: Antineoplastic (screened as potential antitumor promoters, EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = (7.1±0.4)% (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 70%)<sup>[4644]</sup>; antihepatotoxin, reduces excess SGPT (orl 100mg/kg); prevents toxicosis (mus, due to CCl<sub>4</sub> or thioacetamide); promotes biosynthesis of hepatic glycogen (normal hungry mus); toxin (mus, orl, 250mg/kg, mortality = 2/4; mus, ip, 250mg/kg, mortality = 2/3). Source: NEI NAN WU WEI ZI *Kadsura interior* (stem)<sup>[4644]</sup>, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], WU WEI ZI *Schisandra chinensis* (dried ripe fruit: mean content of 11 origins = 0.23%)<sup>[5508]</sup>. Ref: 2, 661, 1582, 4644, 5508.

**8907 Gomisin B**

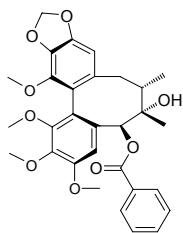
Schizantherin B; Schisantherin B; Wuweizi ester B; Schisanhenrin [58546-55-7] C<sub>28</sub>H<sub>34</sub>O<sub>9</sub> (514.58). Prismatic crystals (ether–petroleum ether), mp 88°C, [α]<sub>D</sub><sup>23</sup> = –27° (c = 1.0, chloroform); mp 97–99°C. Pharm: Antihepatotoxin (mus, orl, 50mg/(kg·d), reduces activity of SGPT); amino transferase inhibitor (mus, hepatitis induced by CCl<sub>4</sub>)<sup>[658]</sup>; antihepatitis (HbsAg: 100μg/mL InRt = 74.1%, 50μg/mL InRt = 28.9%, 25μg/mL InRt = 3.3%; HbeAg: 100μg/mL InRt = 34.1%, 50μg/mL InRt = 28.2%, 25μg/mL InRt = 15.7%; DMSO 2.5μl/mL, InRt = 0%)<sup>[4397]</sup>. Source: HUA ZHONG WU WEI ZI *Schisandra sphenanthera*, WU WEI ZI *Schisandra chinensis*, YI GENG WU WEI ZI *Schisandra henryi*, A LI SHAN WU WEI ZI *Schisandra arisanensis* (stem). Ref: 2, 4, 6, 658, 4397.



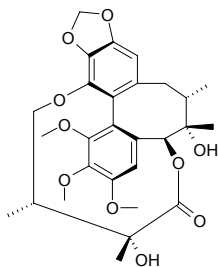


**8908 Gomisin C**

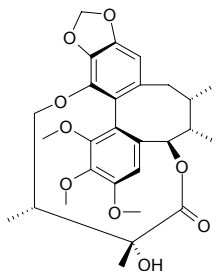
Wuweizi ester A; Schisantherin A [58546-56-8]  $C_{30}H_{32}O_9$  (536.58). mp 116~118°C, 122~124°C. **Pharm:** Antineoplastic (screened as potential antitumor promoters, EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA =  $(19.7 \pm 0.5)\%$  (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 60%)<sup>[4644]</sup>; antihepatotoxin (mus. orl, 100mg/(kg·d), repairs hepatic injury induced by  $CCl_4$  or thioacetamide, amino transferase inhibitor in rat). **Source:** HUA ZHONG WU WEI ZI *Schisandra sphenanthera* (dried ripe fruit: content scope of 12 origins = 0.03%~2.69%, mean content = 1.27%)<sup>[5508]</sup>, NEI NAN WU WEI ZI *Kadsura interior* (stem)<sup>[4644]</sup>, WU WEI ZI *Schisandra chinensis* (dried ripe fruit: content scope of 6 origins = 0.08%~1.95%, mean content = 0.76%)<sup>[5508]</sup>. **Ref:** 2, 4, 6, 658, 4644, 5508.

**8909 Gomisin D**

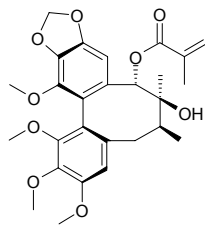
[60546-10-3]  $C_{28}H_{34}O_{10}$  (530.58). **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2.

**8910 Gomisin E**

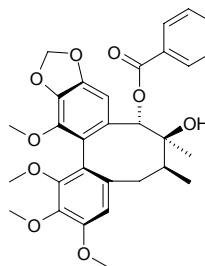
[72960-21-5]  $C_{28}H_{34}O_9$  (514.58).  $[\alpha]_D^{23} = +25.0^\circ$  ( $c = 0.40$ ,  $CHCl_3$ ). **Pharm:** NFAT transcription inhibitor ( $IC_{50} = (4.73 \pm 0.09)\mu\text{mol/L}$ , control Cyclosporin A,  $IC_{50} = (1.20 \pm 0.29)\text{nmol}$ )<sup>[5343]</sup>. **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2, 5343.

**8911 Gomisin F**

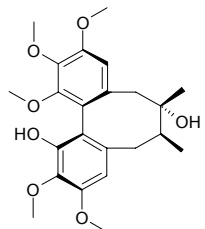
[62956-47-2]  $C_{28}H_{34}O_9$  (514.58). **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2.

**8912 Gomisin G**

[62956-48-3]  $C_{30}H_{32}O_9$  (536.58). Prisms ( $Me_2CO/Et_2O$ ), mp 97~98°C,  $[\alpha]_D^{25} = -126^\circ$  ( $c = 0.427$ ,  $CHCl_3$ ). **Pharm:** Antihepatitis (HbsAg: 100μg/mL InRt = 76.3%, 50μg/mL InRt = 42.4%, 25μg/mL InRt = 17.9%; HbeAg: 100μg/mL InRt = 22.1%, 50μg/mL InRt = 20.0%, 25μg/mL InRt = 6.3%; DMSO 2.5μl/mL, InRt = 0%)<sup>[4397]</sup>; antineoplastic (screened as potential antitumor promoters, EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA =  $(18.9 \pm 0.6)\%$  (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 60%)<sup>[4644]</sup>. **Source:** NEI NAN WU WEI ZI *Kadsura interior* (stem)<sup>[4644]</sup>, WU WEI ZI *Schisandra chinensis*, A LI SHAN WU WEI ZI *Schisandra arisanensis* (stem). **Ref:** 2, 1521, 4397, 4644.

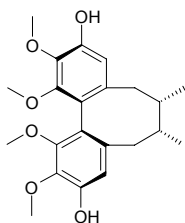
**8913 Gomisin H**

[66056-20-0]  $C_{23}H_{30}O_7$  (418.49). **Pharm:** Inhibits vasomotion (dog mesenteric artery, calcium-induced vasomotion,  $IC_{50} = 530\mu\text{mol/L}$ , induced by prostaglandin  $F_{2\alpha}$ ,  $IC_{50} = 41\mu\text{mol/L}$ ); antihepatotoxin (rat, hepatic cells, GPT's increase induced by galactosamine, 1.0mg/mL shows weak action). **Source:** WU WEI ZI *Schisandra chinensis* (dried ripe fruit: mean content of 11 origins = 0.31%)<sup>[5508]</sup>. **Ref:** 2, 1730, 1731, 5508.

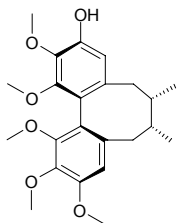


**8914 Gomisin J**

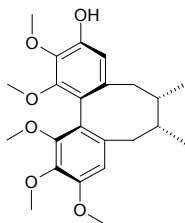
[66280-25-9] C<sub>22</sub>H<sub>28</sub>O<sub>6</sub> (388.46). **Pharm:** Inhibits vasomotion (dog mesenteric artery, calcium-induced vasomotion, IC<sub>50</sub> = 12 μmol/L, induced by prostaglandin F<sub>2a</sub>, IC<sub>50</sub> = 17 μmol/L); increases coronary flow (anesthetic dog); antihepatotoxin (rat, hepatic cells, CCl<sub>4</sub>-induced increase of GPT level, 1.0mg/mL); antioxidant (mitochondria of rat hepatic cells, Fe<sup>2+</sup>/VC-induced lipid peroxidation, IC<sub>50</sub> = 5.5 μmol/L, ADP/NADPH-induced lipid peroxidation, IC<sub>50</sub> = 4.7 μmol/L); cardioprotective agent (inhibits malondialdehyde (MDA) formed by abnormality of calcium concentration in cardiac muscle cells, 10 μmol/L); cAMP phosphodiesterase inhibitor (IC<sub>50</sub> = 136 μmol/L); antineoplastic (mus, TPA-induced skin tumor); anti-HIV (*in vitro*); inhibits gastric ulcer (mus, orl, 100mg/kg, gastric ulcer induced by experimental stress). **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2, 1730, 1731, 1732, 1733, 1734, 1735, 1736.

**8915 (-)-Gomisin K<sub>1</sub>**

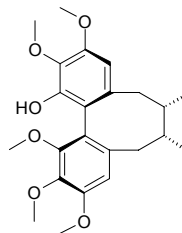
[75629-20-8] C<sub>23</sub>H<sub>30</sub>O<sub>6</sub> (402.49). **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2.

**8916 (+)-Gomisin K<sub>2</sub>**

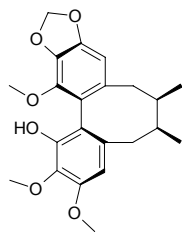
[75684-44-5] C<sub>23</sub>H<sub>30</sub>O<sub>6</sub> (402.49). **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2.

**8917 (+)-Gomisin K<sub>3</sub>**

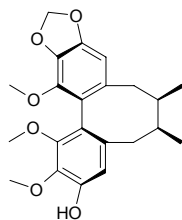
Schisanhenol; Schisanhenol [69363-14-0] C<sub>23</sub>H<sub>30</sub>O<sub>6</sub> (402.49). **Pharm:** Antihepatitis (HbsAg: 100 μg/mL InRt = 76.3%, 50 μg/mL InRt = 42.4%, 25 μg/mL InRt = 17.9%; HbeAg: 50 μg/mL InRt = 20.0%, 25 μg/mL InRt = 16.1%; DMSO 2.5 μl/mL, InRt = 0%)<sup>[4397]</sup>; antihepatotoxin (mus, orl, 200mg/kg). **Source:** A LI SHAN WU WEI ZI *Schisandra arisanensis* (stem), HONG HUA WU WEI ZI *Schisandra rubriflora*, HUA ZHONG WU WEI ZI *Schisandra sphenanthera* (dried ripe fruit: content scope of 12 origins = 0.11%~7.57%, mean content = 1.07%)<sup>[5508]</sup>, WU WEI ZI *Schisandra chinensis* (dried ripe fruit: content scope of 3 origins = 0.021%~0.41%, mean content = 0.14%)<sup>[5508]</sup>. **Ref:** 2, 2, 658, 4397, 5501, 5508.

**8918 (-)-Gomisin L<sub>1</sub>**

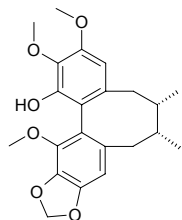
[82425-43-2] C<sub>22</sub>H<sub>26</sub>O<sub>6</sub> (386.45). **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2.

**8919 (-)-Gomisin L<sub>2</sub>**

[82425-44-3] C<sub>22</sub>H<sub>26</sub>O<sub>6</sub> (386.45). **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2.

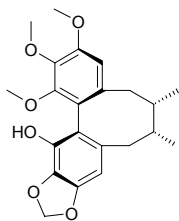
**8920 (±)-Gomisin M<sub>1</sub>**

[82467-50-3] C<sub>22</sub>H<sub>26</sub>O<sub>6</sub> (386.45). **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2.

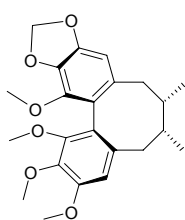


**8921 (+)-Gomisin M<sub>2</sub>**

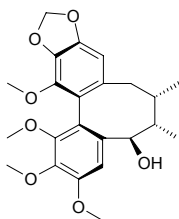
[82425-45-4] C<sub>22</sub>H<sub>26</sub>O<sub>6</sub> (386.45). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.

**8922 Gomisin N**

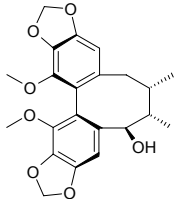
[69176-52-9] C<sub>23</sub>H<sub>28</sub>O<sub>6</sub> (400.48). [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -83.4° (*c* = 1.07, CHCl<sub>3</sub>). Pharm: NFAT transcription inhibitor (IC<sub>50</sub> = (1.33±0.05) μmol/L, control Cyclosporin A, IC<sub>50</sub> = (1.20±0.29) nmol/L)<sup>[5343]</sup>. Source: WU WEI ZI *Schisandra chinensis*. Ref: 5343.

**8923 Gomisin O**

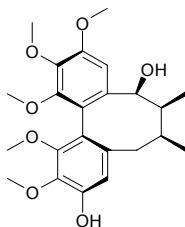
[72960-22-6] C<sub>23</sub>H<sub>28</sub>O<sub>7</sub> (416.48). Source: HONG HUA WU WEI ZI *Schisandra rubriflora*, WU WEI ZI *Schisandra chinensis*. Ref: 2, 39.

**8924 Gomisin R**

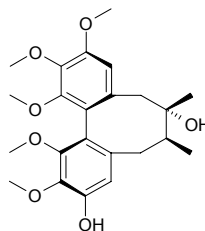
[83864-72-6] C<sub>22</sub>H<sub>24</sub>O<sub>7</sub> (400.43). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.

**8925 Gomisin S**

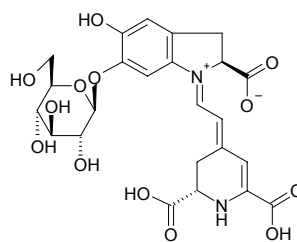
[119239-49-5] C<sub>23</sub>H<sub>30</sub>O<sub>7</sub> (418.49). Colorless rhombic Crystals, mp 172~176°C, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -63° (*c* = 0.49, chloroform). Pharm: Aldose reductase inhibitor (rat eye lens, 0.1ng/mL, InRt = 28%). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2, 1023.

**8926 Gomisin T**

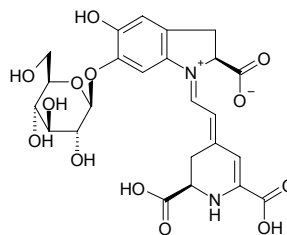
Gomisin T-ol [119139-66-1] C<sub>23</sub>H<sub>30</sub>O<sub>7</sub> (418.49). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +60° (*c* = 0.50, chloroform). Pharm: 5-Lipoxygenase inhibitor (100 μmol/mL, InRt = 55.6%). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2, 1023.

**8927 Gomphrenin I**

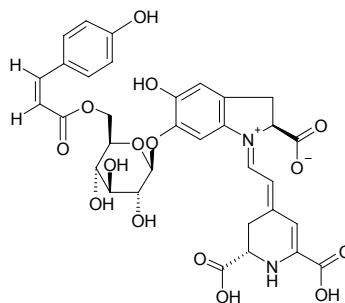
[17008-59-2] C<sub>24</sub>H<sub>26</sub>N<sub>2</sub>O<sub>13</sub> (550.48). Pharm: Purple phytochrome. Source: QIAN RI HONG *Gomphrena globosa*. Ref: 15, 658.

**8928 Gomphrenin II**

[17008-60-5] C<sub>24</sub>H<sub>26</sub>N<sub>2</sub>O<sub>13</sub> (550.48). Source: QIAN RI HONG *Gomphrena globosa*. Ref: 15.

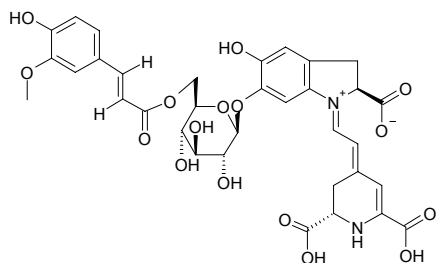
**8929 Gomphrenin III**

C<sub>33</sub>H<sub>32</sub>N<sub>2</sub>O<sub>15</sub> (696.63). Source: QIAN RI HONG *Gomphrena globosa*. Ref: 6, 15.

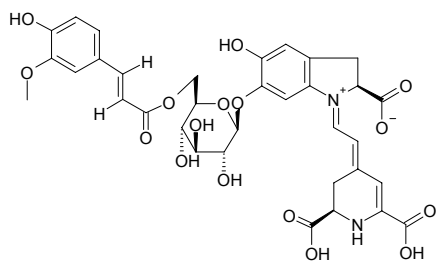


**8930 Gomphrenin V**

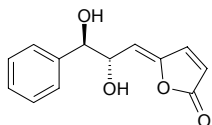
[16955-52-5] C<sub>34</sub>H<sub>34</sub>N<sub>2</sub>O<sub>16</sub> (726.65). **Pharm:** Purple phytochrome. **Source:** QIAN RI HONG *Gomphrena globosa*. **Ref:** 6, 15, 658.

**8931 Gomphrenin VI**

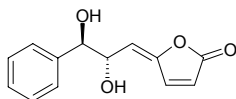
[16955-53-6] C<sub>34</sub>H<sub>34</sub>N<sub>2</sub>O<sub>16</sub> (726.65). **Source:** QIAN RI HONG *Gomphrena globosa*. **Ref:** 6, 15.

**8932 Goniobutenolide A**

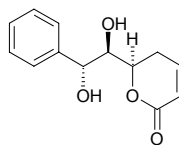
C<sub>13</sub>H<sub>12</sub>O<sub>4</sub> (232.24). **Pharm:** Cytotoxic (HepG2, IC<sub>50</sub> = 5.83μg/mL, control Doxorubicin, IC<sub>50</sub> = 0.38μg/mL; Hep3B, IC<sub>50</sub> = 15.33μg/mL, Doxorubicin, IC<sub>50</sub> = 0.36μg/mL; MDA-MB-231, IC<sub>50</sub> = 1.36μg/mL, Doxorubicin, IC<sub>50</sub> = 1.20μg/mL; MCF7, inactive). **Source:** TAI WAN GE NA XIANG *Goniothalamus amuyon* (stem and leaf). **Ref:** 5056.

**8933 Goniobutenolide B**

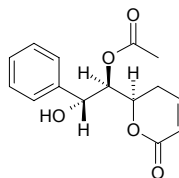
C<sub>13</sub>H<sub>12</sub>O<sub>4</sub> (232.24). **Pharm:** Cytotoxic (HepG2, IC<sub>50</sub> = 6.68μg/mL, control Doxorubicin, IC<sub>50</sub> = 0.38μg/mL; Hep3B, IC<sub>50</sub> = 10.99μg/mL, Doxorubicin, IC<sub>50</sub> = 0.36μg/mL; MDA-MB-231, IC<sub>50</sub> = 1.40μg/mL, Doxorubicin, IC<sub>50</sub> = 1.20μg/mL; MCF7, inactive). **Source:** TAI WAN GE NA XIANG *Goniothalamus amuyon* (stem and leaf). **Ref:** 5056.

**8934 (6R,7R,8R)-Goniodiol**

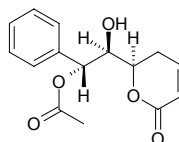
C<sub>13</sub>H<sub>14</sub>O<sub>4</sub> (234.25). **Pharm:** Cytotoxic (HepG2, IC<sub>50</sub> = 9.15μg/mL, control Doxorubicin, IC<sub>50</sub> = 0.38μg/mL; Hep3B, IC<sub>50</sub> = 17.21μg/mL, Doxorubicin, IC<sub>50</sub> = 0.36μg/mL; MDA-MB-231, IC<sub>50</sub> = 8.80μg/mL, Doxorubicin, IC<sub>50</sub> = 1.20μg/mL). **Source:** TAI WAN GE NA XIANG *Goniothalamus amuyon* (stem and leaf). **Ref:** 5056.

**8935 Goniodiol-7-monoacetate**

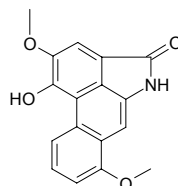
C<sub>15</sub>H<sub>16</sub>O<sub>5</sub> (276.29). **Pharm:** Cytotoxic (*in vitro*, NUGC, IC<sub>50</sub> = 4.12μg/mL; HONE-1, IC<sub>50</sub> = 5.69μg/mL; control Actinomycin, NUGC, IC<sub>50</sub> = 6.61μg/mL; HONE-1, IC<sub>50</sub> = 4.53μg/mL)<sup>[4686]</sup>; cytotoxic (HepG2, inactive; Hep3B, IC<sub>50</sub> = 7.85μg/mL, control Doxorubicin, IC<sub>50</sub> = 0.36μg/mL; MDA-MB-231, inactive; MCF7, inactive)<sup>[5056]</sup>. **Source:** TAI WAN GE NA XIANG *Goniothalamus amuyon* (fresh leaf: yield = 0.028%fw; stem: yield = 0.0016%fw). **Ref:** 4686, 5056.

**8936 Goniodiol-8-monoacetate**

C<sub>15</sub>H<sub>16</sub>O<sub>5</sub> (276.29). **Pharm:** Cytotoxic (*in vitro*, NUGC, IC<sub>50</sub> = 5.02μg/mL; HONE-1, IC<sub>50</sub> = 6.09μg/mL; control Actinomycin, NUGC, IC<sub>50</sub> = 6.61μg/mL; HONE-1, IC<sub>50</sub> = 4.53μg/mL)<sup>[4686]</sup>; cytotoxic (HepG2, inactive; Hep3B, IC<sub>50</sub> = 4.63μg/mL, control Doxorubicin, IC<sub>50</sub> = 0.36μg/mL; MDA-MB-231, IC<sub>50</sub> = 8.05μg/mL, Doxorubicin, IC<sub>50</sub> = 1.20μg/mL; MCF7, inactive)<sup>[5056]</sup>. **Source:** TAI WAN GE NA XIANG *Goniothalamus amuyon* (fresh leaf: yield = 0.0044%fw). **Ref:** 4686, 5056.

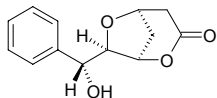
**8937 Gonioffithine**

10-Amino-2,4-dimethoxyphenanthrene-1-carboxylic acid lactam [240122-32-1] C<sub>17</sub>H<sub>13</sub>NO<sub>4</sub> (295.30). Yellow acicular Crystals, mp 312–314°C. **Source:** DA HUA GE NA XIANG *Goniothalamus griffithii*. **Ref:** 848, 5453.

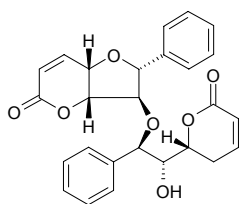


**8938 Goniofupryrone A**

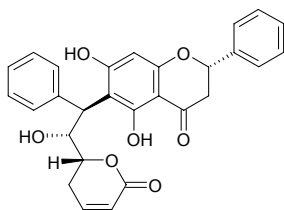
$C_{13}H_{14}O_4$  (234.25). Colorless plates, mp 154–156°C,  $[\alpha]_D^{23} = -25.6^\circ$  ( $c = 0.08$ , MeOH). **Pharm:** Cytotoxic inactive (HepG2, Hep3B, MDA-MB-231, MCF7). **Source:** TAI WAN GE NA XIANG *Goniothalamus amuyon* (stem and leaf). **Ref:** 5056.

**8939 Goniolactone A**

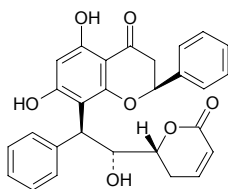
$C_{26}H_{24}O_7$  (448.48). White needles, mp 166–168°C,  $[\alpha]_D^{20} = +83.6^\circ$  ( $c = 0.26$ , EtOH). **Pharm:** Cytotoxic (*in vitro*, showed no significant inhibitory activities toward A2780, HCT8 and KB). **Source:** GE NA XIANG *Goniothalamus cheliensis* (root: yield = 0.00025%dw). **Ref:** 4631.

**8940 Goniolactone B**

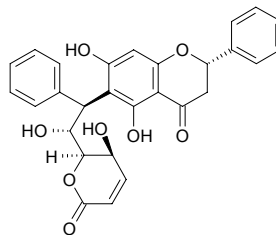
$C_{28}H_{24}O_7$  (472.5). Amorphous powder, mp 176–178°C,  $[\alpha]_D^{20} = +33.7^\circ$  ( $c = 0.92$ , EtOH). **Pharm:** Cytotoxic (*in vitro*, A2780,  $IC_{50} = 7.4 \mu\text{mol/L}$ ; HCT8,  $IC_{50} = 4.43 \mu\text{mol/L}$ ; KB,  $IC_{50} = 7.23 \mu\text{mol/L}$ ). **Source:** GE NA XIANG *Goniothalamus cheliensis* (root: yield = 0.00029%dw). **Ref:** 4631.

**8941 Goniolactone C**

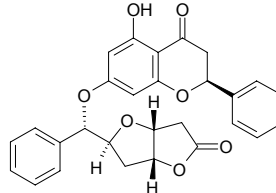
$C_{28}H_{24}O_7$  (472.5). Colorless oil,  $[\alpha]_D^{20} = -53.9^\circ$  ( $c = 0.71$ , EtOH). **Source:** GE NA XIANG *Goniothalamus cheliensis* (root: yield = 0.00005%dw). **Ref:** 4631.

**8942 Goniolactone D**

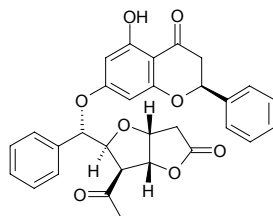
$C_{28}H_{24}O_8$  (488.5). White needles, mp 158–160°C,  $[\alpha]_D^{20} = +17.6^\circ$  ( $c = 0.42$ , EtOH). **Pharm:** Cytotoxic inactive (*in vitro*, A2780, HCT8 and KB). **Source:** GE NA XIANG *Goniothalamus cheliensis* (root: yield = 0.00021%dw). **Ref:** 4631.

**8943 Goniolactone E**

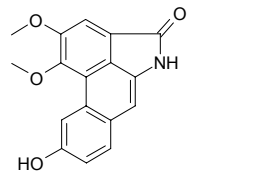
$C_{28}H_{24}O_7$  (472.5). White powder, mp 238–240°C,  $[\alpha]_D^{20} = 0^\circ$  ( $c = 0.10$ , EtOH). **Source:** GE NA XIANG *Goniothalamus cheliensis* (root: yield = 0.00003%dw). **Ref:** 4631.

**8944 Goniolactone F**

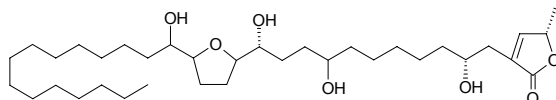
$C_{30}H_{26}O_8$  (514.54). White powder, mp 257–258°C,  $[\alpha]_D^{20} = +17.6^\circ$  ( $c = 0.21$ , EtOH). **Pharm:** Cytotoxic inactive (*in vitro*, A2780, HCT8 and KB). **Source:** GE NA XIANG *Goniothalamus cheliensis* (root: yield = 0.00013%dw). **Ref:** 4631.

**8945 Goniolactam**

$C_{17}H_{13}NO_4$  (295.30). **Source:** *Goniothalamus* sp. **Ref:** 2447.

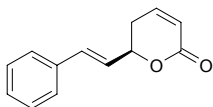
**8946 cis-Goniothalamycin**

[172586-14-0]  $C_{35}H_{64}O_7$  (596.90). White amorphous powder (hexane), mp 80°C,  $[\alpha]_D^{25} = 7.2^\circ$  ( $c = 0.03$ , chloroform). **Pharm:** Cytotoxic (A549,  $IC_{50} = 0.13 \mu\text{g/mL}$ , MCF7,  $IC_{50} = 1.05 \mu\text{g/mL}$ , HT29,  $IC_{50} = 0.0053 \mu\text{g/mL}$ ); cytotoxic (BST,  $LC_{50} = 5.2 \mu\text{g/mL}$ , PD experiment,  $\text{InRt} = 47\%$ ); cytotoxic (*in vitro* HepG2,  $EC_{50} = 0.202 \mu\text{g/mL}$ , Hep3B,  $EC_{50} = 3.11 \mu\text{g/mL}$ ; control Doxorubicin, HepG2,  $EC_{50} = 0.38 \mu\text{g/mL}$ , Hep3B,  $EC_{50} = 0.36 \mu\text{g/mL}$ )<sup>[5035]</sup>. **Source:** CI GUO FAN LI ZHI *Annona muricata*, SHAN FAN LI ZHI *Annona montana* (seed). **Ref:** 1062, 5035.

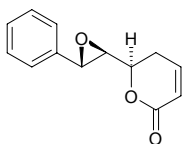


**8947 Goniotalamin**

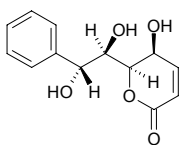
[17303-67-2] C<sub>13</sub>H<sub>12</sub>O<sub>2</sub> (200.24). White crystals, mp 85°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +170° (c = 1.38, CHCl<sub>3</sub>); [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -183.9° (c = 0.6, MeOH). **Pharm:** Cytotoxic (HepG2, IC<sub>50</sub> = 0.31 μg/mL, control Doxorubicin, IC<sub>50</sub> = 0.38 μg/mL; Hep3B, IC<sub>50</sub> = 1.07 μg/mL, control Doxorubicin, IC<sub>50</sub> = 0.36 μg/mL; MDA-MB-231, IC<sub>50</sub> = 1.07 μg/mL, control Doxorubicin, IC<sub>50</sub> = 1.20 μg/mL; MCF7, IC<sub>50</sub> = 4.65 μg/mL, control Doxorubicin, IC<sub>50</sub> = 2.51 μg/mL)<sup>[5056]</sup>. **Source:** DA HUA GE NA XIANG *Goniotalamus griffithii*, JIN PING GE NA XIANG *Goniotalamus leiocarpus*, TAI WAN GE NA XIANG *Goniotalamus amuyon* (stem and leaf), TAI WAN GE NA XIANG *Goniotalamus amuyon* (fresh leaf: yield = 0.00061%fw)<sup>[4686]</sup>. **Ref:** 420, 4686, 5056, 5453.

**8948 Goniotalamin epoxide**

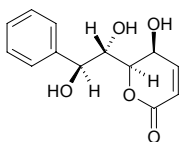
C<sub>13</sub>H<sub>12</sub>O<sub>3</sub> (216.24). **Pharm:** Cytotoxic (*in vitro*, NUGC, IC<sub>50</sub> = 32.1 μg/mL; HONE-1, IC<sub>50</sub> = 36.3 μg/mL; control Actinomycin, NUGC, IC<sub>50</sub> = 6.61 μg/mL; HONE-1, IC<sub>50</sub> = 4.53 μg/mL)<sup>[4686]</sup>; cytotoxic (HepG2, IC<sub>50</sub> = 0.19 μg/mL, control Doxorubicin, IC<sub>50</sub> = 0.38 μg/mL; Hep3B, IC<sub>50</sub> = 3.29 μg/mL, Doxorubicin, IC<sub>50</sub> = 0.36 μg/mL; MDA-MB-231, IC<sub>50</sub> = 1.23 μg/mL, Doxorubicin, IC<sub>50</sub> = 1.20 μg/mL; MCF7, IC<sub>50</sub> = 1.94 μg/mL, Doxorubicin, IC<sub>50</sub> = 2.51 μg/mL)<sup>[5056]</sup>. **Source:** TAI WAN GE NA XIANG *Goniotalamus amuyon* (fresh leaf: yield = 0.00035%fw; stem: yield = 0.00047%fw). **Ref:** 4686, 5056.

**8949 (5S,6R,7R,8R)-Goniotriol**

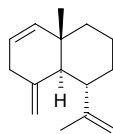
C<sub>13</sub>H<sub>14</sub>O<sub>5</sub> (250.25). **Source:** TAI WAN GE NA XIANG *Goniotalamus amuyon* (fresh leaf: yield = 0.0059%fw; stem: yield = 0.00047%fw). **Ref:** 4686.

**8950 (5S,6R,7S,8S)-Goniotriol**

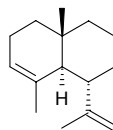
C<sub>13</sub>H<sub>14</sub>O<sub>5</sub> (250.25). **Source:** TAI WAN GE NA XIANG *Goniotalamus amuyon* (fresh leaf: yield = 0.00065%fw). **Ref:** 4686.

**8951 (5S,6S,10S)-Gorgona-1,4(15),11-triene**

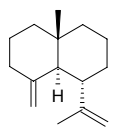
(4S,4aS,8aS)-8a-Methyl-5-methylene-4-(1-methylvinyl)-1,2,3,4,4a,5,6,8a-octa-hydro-naphthalene C<sub>15</sub>H<sub>22</sub> (202.34). Colorless oil. **Source:** *Saccogyna viticulosa* (essential oil). **Ref:** 3839.

**8952 (+)-(5R,6S,10S)-α-Gorgonene**

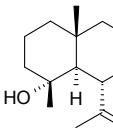
(+)-(1S,4aS,8aR)-4a,8-Dimethyl-1-(1-methylvinyl)-1,2,3,4,4a,5,6,8a-octahydro-o-naphthalene C<sub>15</sub>H<sub>24</sub> (204.36). Colorless oil. **Source:** *Saccogyna viticulosa* (essential oil). **Ref:** 3839.

**8953 β-Gorgonene**

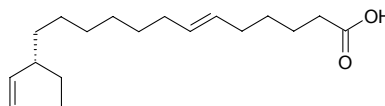
(+)-(5S,6S,10S)-β-Gorgonene C<sub>15</sub>H<sub>24</sub> (204.36). **Source:** *Saccogyna viticulosa* (essential oil). **Ref:** 3839.

**8954 (-)-(4R,5R,6S,10S)-Gorgon-11-en-4-ol**

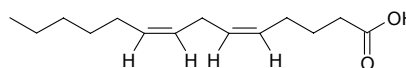
(-)-(1R,4aS,8S,9R)-1,4a-Dimethyl-8-(1-methylethenyl)-decahydro-naphthalen-1-ol C<sub>15</sub>H<sub>26</sub>O (222.37). Colorless oil. **Source:** *Saccogyna viticulosa* (essential oil). **Ref:** 3839.

**8955 Gorlic acid**

C<sub>18</sub>H<sub>30</sub>O<sub>2</sub> (278.44). **Pharm:** Antileprotic (inhibits *Mycobacterium leprae*). **Source:** DA FENG ZI *Hydnocarpus anthelminticus* (seed: content scope = 0.57%~1.03%). **Ref:** 5501.

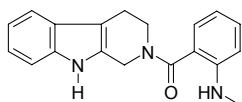
**8956 Goshuyic acid**

Goshuynic acid [39039-37-7] C<sub>14</sub>H<sub>24</sub>O<sub>2</sub> (224.35). **Source:** WU ZHU YU *Evodia rutaecarpa*. **Ref:** 6, 1521.

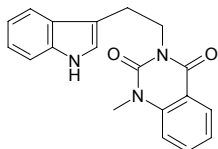


**8957 Goshuyamide I**

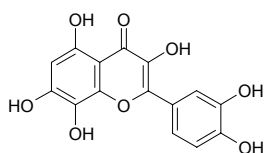
[126223-62-9] C<sub>19</sub>H<sub>19</sub>N<sub>3</sub>O (305.38). Source: WU ZHU YU *Evodia rutaecarpa*.  
Ref: 2, 347, 877.

**8958 GoshuyamideII**

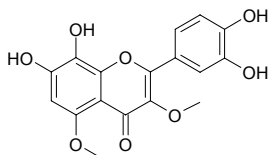
[95274-42-3] C<sub>19</sub>H<sub>17</sub>N<sub>3</sub>O<sub>2</sub> (319.37). Source: WU ZHU YU *Evodia rutaecarpa*.  
Ref: 2, 877.

**8959 Gossypetin**

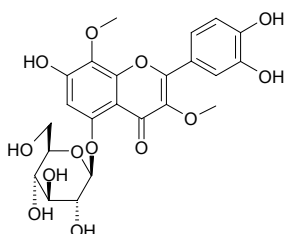
[489-35-0] C<sub>15</sub>H<sub>10</sub>O<sub>8</sub> (318.24). mp 311~313°C. Pharm: Antibacterial (*Pseudomonas maltophilia* and *Enterobacter cloacae*). Source: BAI HUA YING SHAN HONG *Rhododendron mucronatum*, HENG GEN FEI CAI *Sedum kamschaticum*, MAN SHAN HONG *Rhododendron dauricum*, XIAO YE PI PA *Rhododendron anthopogonoides*, YING SHAN HONG *Rhododendron mucronulatum*, ZHAO SHAN BAI *Rhododendron micranthum*.  
Ref: 6, 658.

**8960 Gossypetin-3,5-dimethyl ether**

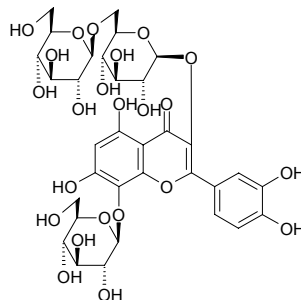
C<sub>17</sub>H<sub>14</sub>O<sub>8</sub> (346.30). Source: KE SHI FAN YING TAO *Eugenia edulis* (leaf).  
Ref: 3469.

**8961 Gossypetin-3,8-dimethyl ether-5-O-beta-glucoside**

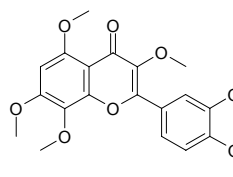
C<sub>23</sub>H<sub>24</sub>O<sub>13</sub> (508.44). Source: KE SHI FAN YING TAO *Eugenia edulis* (leaf).  
Ref: 3469.

**8962 Gossypetin-3-beta-D-(2-O-beta-D-glucopyranosylglucopyranoside)-8-beta-D-glucopyranoside**

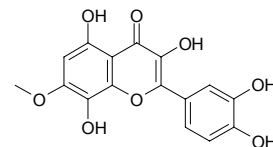
C<sub>33</sub>H<sub>40</sub>O<sub>23</sub> (804.67). Source: MU ZEI *Equisetum hiemale*. Ref: 2.

**8963 Gossypetin hexamethyl ether**

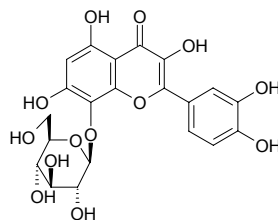
C<sub>21</sub>H<sub>22</sub>O<sub>8</sub> (402.40). mp 159~161°C, 170~171°C. Source: JI CAI *Capsella bursa-pastoris*. Ref: 6.

**8964 Gossypetin-7-methylether**

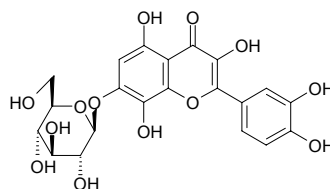
[18799-01-4] C<sub>16</sub>H<sub>12</sub>O<sub>8</sub> (332.27). Source: DI YANG QUE *Lotus corniculatus*. Ref: 6.

**8965 Gossypin**

[652-78-8] C<sub>21</sub>H<sub>20</sub>O<sub>13</sub> (480.39). mp 230°C (dec). Pharm: Analgesic; anti-inflammatory (reduces swollen foot and increase of blood capillary permeability caused by variety of phlogogenic agents); antiulcerative (gastric ulcer). Source: HENG GEN FEI CAI *Sedum kamschaticum*, MO PAN CAO *Abutilon indicum*, PU TAO YE MU JIN *Hibiscus vitifolius*, YIN DU MIAN *Gossypium indicum*. Ref: 6, 661.

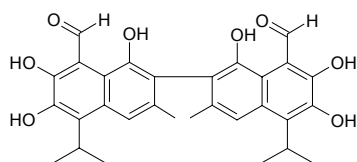
**8966 Gossypitrin**

[489-34-9] C<sub>21</sub>H<sub>20</sub>O<sub>13</sub> (480.39). mp 252°C. Source: MU ZEI *Equisetum hiemale*, MO PAN CAO *Abutilon indicum*, WEN JING *Equisetum arvense*. Ref: 2.

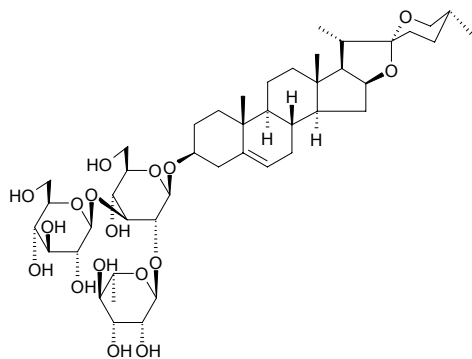


**8967 Gossypol**

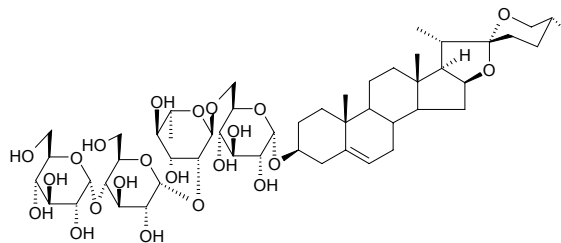
[303-45-7]  $C_{30}H_{30}O_8$  (518.57). mp 184°C, 199°C, 214°C. **Pharm:** Antibacterial (*Staphylococcus aureus*, hemolytic streptococcus); antineoplastic (mus, P<sub>388</sub>, hystero-myoma, deciduoma caused by luteosterone); anti-fertility agent (inhibits generation and movement of sperma, *D*-isomer has no activity); antiviral ( $\alpha$ -influenza virus PR<sub>8</sub> and Japanese encephalitis virus); promotes regeneration of muscle tissue (ointment); LD<sub>50</sub> (mus, orl) = 315mg/kg. **Source:** DI TANG HUA *Kerria japonica*, HAI DAO MIAN *Gossypium barbadense* [root cortex: content = 1.8%<sup>[5508]</sup>], LU DI MIAN *Gossypium hirsutum* [Syn. *Gossypium mexicanum*] (root cortex: content = 1.6%<sup>[5508]</sup>), MIAN HUA *Gossypium herbaceum*, MIAN HUA GEN *Gossypium herbaceum* (root cortex: content = 1.3%<sup>[5508]</sup>), MIAN ZI YOU *Gossypium herbaceum* (seed: mean content of 5 batch samples = 0.13%<sup>[5508]</sup>). **Ref:** 4, 5, 6, 658, 5508.

**8968 Gracillin**

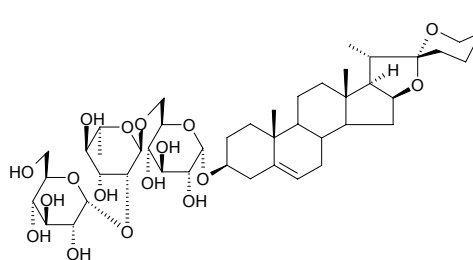
Gracilline [19083-00-2]  $C_{45}H_{72}O_{17}$  (885.07). Colorless rhombic crystals (methanol), mp 287–289°C (dec); 298–302°C; 290–293°C,  $[\alpha]_D^{20} = -86.2^\circ$  ( $c = 0.12$ , dimethylformamide). **Pharm:** Antibacterial (*Bacillus dysenteriae*, MIC = 2.5mg/mL; *Serratia marcescens*, MIC = 2.5mg/mL; *Bacillus coli*, MIC = 5.0mg/mL; drug-fast *Staphylococcus aureus*, MIC = 2.5mg/mL; sensitive *Staphylococcus aureus*, MIC = 2.5mg/mL); antifungal (*Trichophyton mentagrophytes*); cardiotoxic; cytotoxic (*in vitro*, HeLa, IC<sub>50</sub> = 12.74μg/mL; control Cisplatin, HeLa, IC<sub>50</sub> = 0.75μg/mL<sup>[4788]</sup>); hemolytic (extremely strong); antineoplastic (inhibits TPA-induced <sup>32</sup>P combines with phospholipid in HeLa cells, 5μg/mL, InRt = 11.5%); cAMP phosphodiesterase inhibitor (*in vitro*, IC<sub>50</sub> = 61μmol/L). **Source:** BA QIA *Smilax china* [Syn. *Smilax japonica*], CI JI LI *Tribulus terrestris*, DUN YE SHU YU *Dioscorea zingiberensis*, FU ZHOU SHU YU *Dioscorea futschauensis*, HAI JIN BI XIE *Dioscorea spongiosa* (Rhizome: yield = 0.00041%<sup>[4692]</sup>), HU BEI HUANG JING *Polygonatum zanlanscianense* (rhizome: yield = 0.00045%dw<sup>[4788]</sup>), SHU KUI YE SHU YU *Dioscorea althaeoides*, XIAN XI SHU YU *Dioscorea gracillima*, ZHANG LIU TOU *Costus speciosus*, XIAO HUA DUN YE SHU YU *Dioscorea parviflora*, *Costus* sp. **Ref:** 6, 10, 15, 660, 900, 4692, 4788.

**8969 Graecunin E**

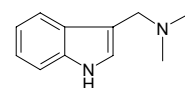
$C_{51}H_{82}O_{22}$  (1047.21). **Source:** HU LU BA *Trigonella foenum-graecum*. **Ref:** 2458.

**8970 Graecunin G**

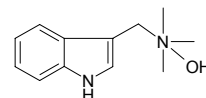
$C_{45}H_{72}O_{17}$  (885.07). **Source:** HU LU BA *Trigonella foenum-graecum*. **Ref:** 2458.

**8971 Gramine**

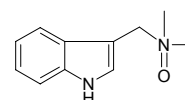
Donaxine [87-52-5]  $C_{11}H_{14}N_2$  (174.25). Acicular or lamellar crystals, (acetone), mp 138–139°C, soluble in ethanol, ether, chloroform, slightly soluble in cold acetone, insoluble in petroleum ether, water.<sup>[5507]</sup> **Pharm:** Insect antifeedant; toxin (sheep, causes Phalaris blind stagger). **Source:** HONG HUA QI *Acer rubrum*, JI MU *Loropetalum chinense*, LU ZHU GEN *Arundo donax*, MAI YA *Hordeum vulgare*, YI CAO *Phalaris arundinacea*, YIN BAI QI *Acer saccharinum*, *Lupinus* sp. **Ref:** 4, 6, 658, 5507.

**8972 Gramine methohydroxide**

$C_{12}H_{18}N_2O$  (206.29). **Source:** LU ZHU GEN *Arundo donax*. **Ref:** 6.

**8973 Gramine Nb-oxide**

$C_{11}H_{14}N_2O$  (190.25). **Source:** LU ZHU GEN *Arundo donax*. **Ref:** 6.

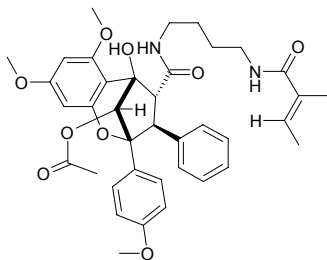




**8974 Grandiamide A**

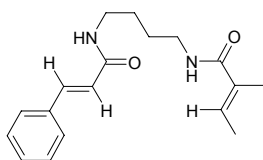
$C_{38}H_{44}N_2O_9$  (672.78). Amorphous powder,  $[\alpha]_D^{25} = -108.8^\circ$  ( $c = 0.25$ ,  $CHCl_3$ ).

Source: JU DA MI ZI LAN *Aglaiia grandis* (leaf). Ref: 3947.

**8975 Grandiamide B**

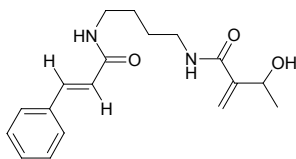
$C_{18}H_{24}N_2O_2$  (300.40). mp 99~102°C (Hexane-EtOH). Source: JU DA MI ZI

LAN *Aglaiia grandis* (leaf). Ref: 3947.

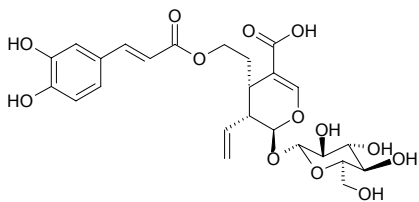
**8976 Grandiamide C**

$C_{18}H_{24}N_2O_3$  (316.40). Amorphous powder,  $[\alpha]_D^{20} = \pm 0^\circ$  ( $c = 1.13$ ,  $CHCl_3$ ).

Source: JU DA MI ZI LAN *Aglaiia grandis* (leaf). Ref: 3947.

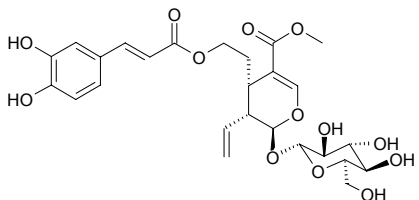
**8977 Grandifloroside**

$C_{25}H_{30}O_{13}$  (538.51). Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0046%dw). Ref: 4723.

**8978 Grandifloroside 11-methyl ester**

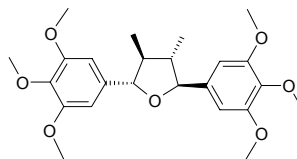
$C_{26}H_{32}O_{13}$  (552.54). Amorphous powder,  $[\alpha]_D^{26} = -94^\circ$  ( $c = 0.66$ , MeOH).

Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0018%dw). Ref: 4723.

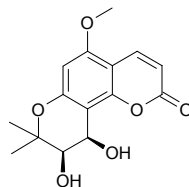
**8979 Grandisin**

[53250-50-3]  $C_{24}H_{32}O_7$  (432.52). Pharm: Inhibits PAF; antitrypanosomal (trypanostigote form of *Trypanosoma cruzi* (Y strain),  $IC_{50} = 8.74\mu g/mL$ )<sup>[3450]</sup>.

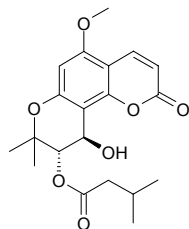
Source: DA MU JIANG ZI *Litsea grandis*, *Piper solmsianum*. Ref: 658, 3450.

**8980 cis-Grandmarin**

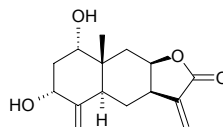
$C_{15}H_{16}O_6$  (292.29). Pharm: Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500mol ratio/32 pmol TPA: EBV-EA-positive cells = (41.8±1.4)% (viability > 80%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability >80), Curcumin, EBV-EA-positive cells = (22.8±1.8)% (viability > 80%), compound  $IC_{50} = 350$ mol ratio/32 pmol TPA,  $\beta$ -Carotene,  $IC_{50} = 400$ mol ratio/32 pmol TPA, Curcumin,  $IC_{50} = 341$ mol ratio/32 pmol TPA). Source: *Citrus tamurana*. Ref: 5048.

**8981 trans-Grandmarin isovalerate**

$C_{20}H_{24}O_7$  (376.41). Pharm: Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500mol ratio/32 pmol TPA: EBV-EA-positive cells = (42.5±1.3)% (viability > 80%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability >80), Curcumin, EBV-EA-positive cells = (22.8±1.8)% (viability > 80%), compound  $IC_{50} = 428$ mol ratio/32 pmol TPA,  $\beta$ -Carotene,  $IC_{50} = 400$ mol ratio/32 pmol TPA, Curcumin,  $IC_{50} = 341$ mol ratio/32 pmol TPA). Source: *Citrus hassaku*. Ref: 5048.

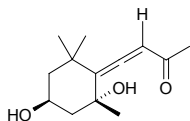
**8982 Granilin**

[40737-97-1]  $C_{15}H_{20}O_4$  (264.32). Pharm: Antibacterial. Source: A SHI HAO *Artemisia ashurbajevii*, DA YE TU MU XIANG *Inula grandis*, DUO SUI TUN CAO *Ambrosia polystachya*, TIAN MING JING *Carpesium abrotanoides*. Ref: 658, 1521.

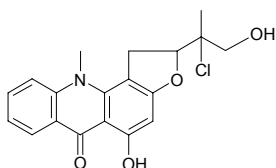


**8983 Grassopperketone**

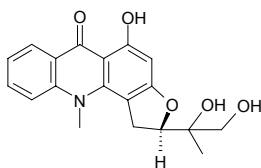
$C_{13}H_{20}O_3$  (224.30). Source: RI BEN HUANG BAI *Phellodendron japonicum* (leaf). Ref: 4502.

**8984 Gravacridonechlorine**

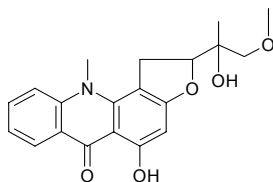
[38494-84-7]  $C_{19}H_{18}ClNO_4$  (359.81). mp 254–257°C. Source: CHOU CAO *Ruta graveolens*. Ref: 6, 2101.

**8985 Gravacridonediol**

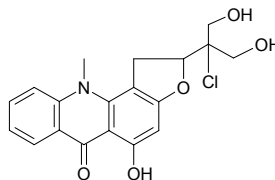
[37551-75-0]  $C_{19}H_{19}NO_5$  (341.37). Yellow amorphous powder, mp 224–227°C,  $[\alpha]_D = -111.1^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antileishmanial (*Leishmania major* promastigote, 10  $\mu\text{mol/L}$ , survival = (54.0 $\pm$ 1.1)%, 1  $\mu\text{mol/L}$ , survival = (97.2 $\pm$ 2.2)%, control Amphotericin B, 10  $\mu\text{mol/L}$ , survival = (0.2 $\pm$ 0.04)%, 1  $\mu\text{mol/L}$ , survival = (71.9 $\pm$ 4.4)%; *Leishmania major* amastigote, 10  $\mu\text{mol/L}$ , survival = (9.5 $\pm$ 1.0)%, 1  $\mu\text{mol/L}$ , survival = (58.0 $\pm$ 3.1)%, control Amphotericin B, 10  $\mu\text{mol/L}$ , survival = (0.4 $\pm$ 0.02)%, 1  $\mu\text{mol/L}$ , survival = (0.5 $\pm$ 0.03)%)<sup>[3797]</sup>; antifungal inactive (silica gel TLC, *Cladosporium cucumerinum*, control Nystatin, MIA = 0.2  $\mu\text{g}$ )<sup>[3797]</sup>; algicidal (*Oscillatoria perornata*, LCIC = 10 mg/L; *Selenastrum capricornutum*, LCIC > 100 mg/L)<sup>[5328]</sup>. Source: CHOU CAO *Ruta graveolens*, *Thamnosma rhodesica* (root). Ref: 6, 3797, 5328, 1521.

**8986 Gravacridonediol monomethyl ether**

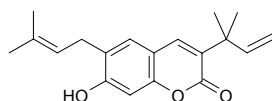
$C_{20}H_{21}NO_5$  (355.39). mp 219–221°C. Source: CHOU CAO *Ruta graveolens*. Ref: 6.

**8987 Gravacridonolchlorine**

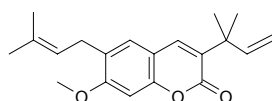
[38494-85-8]  $C_{19}H_{18}ClNO_5$  (375.81). mp 233–237°C. Source: CHOU CAO *Ruta graveolens*. Ref: 6.

**8988 Gravelliferone**

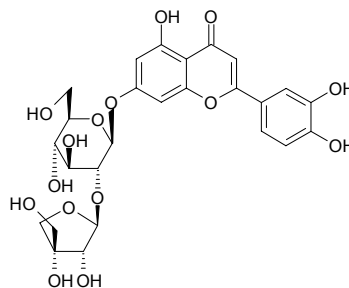
[21316-80-3]  $C_{19}H_{22}O_3$  (298.39). mp 116–118°C. Source: CHOU CAO *Ruta graveolens*. Ref: 6.

**8989 Gravelliferone methyl ether**

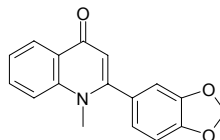
$C_{20}H_{24}O_3$  (312.41). Pharm: Vasodilator (cerebral, pig, *in vitro*). Source: SHAN MO LI YUN XIANG *Ruta oreojasme*, CHOU CAO *Ruta graveolens*. Ref: 6, 658.

**8990 Graveobioside A**

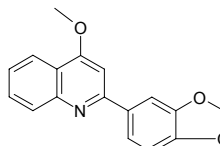
Luteolin-7-apio-glucoside [63808-23-1]  $C_{26}H_{28}O_{15}$  (580.50). mp 251–252°C. Source: HAN QIN *Apium graveolens*. Ref: 6, 1521.

**8991 Graveoline**

[485-61-0]  $C_{17}H_{13}NO_3$  (279.30). mp 204–205°C. Source: CHOU CAO *Ruta graveolens*, WU ZHU YU *Evodia rutaecarpa* (fruit). Ref: 6, 5031.

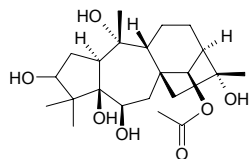
**8992 Graveolinine**

[4179-37-7]  $C_{17}H_{17}NO_3$  (279.30). mp 115–116°C. Source: CHOU CAO *Ruta graveolens*. Ref: 6.

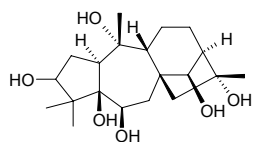


**8993 Grayanotoxin I**

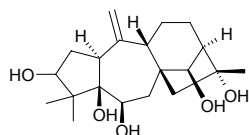
$C_{22}H_{36}O_7$  (412.53). Source: MU LI LU *Leucothoe grayana* (in 1971 the compound was isolated from the plant)<sup>[5505]</sup>. Ref: 5505, 5507.

**8994 Grayanotoxin III**

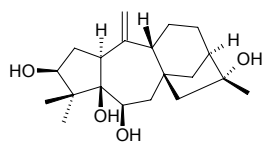
$C_{20}H_{34}O_6$  (370.49). Source: MU LI LU *Leucothoe grayana* (in 1971 the compound was isolated from the plant)<sup>[5505]</sup>, RI BEN MA ZUI MU *Pieris japonica* (in 1959 the compound was separated from the plant)<sup>[5505]</sup>. Ref: 5505, 5507.

**8995 Grayanotoxin II**

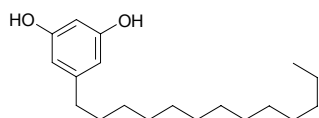
$C_{20}H_{32}O_5$  (352.48). Source: MU LI LU *Leucothoe grayana* (the compound was isolated from the plant in 1971)<sup>[5505]</sup>, NAO YANG HUA *Rhododendron molle* (flower: yield = 0.00023%dw). Ref: 5505, 4780.

**8996 Grayanotoxin XVIII**

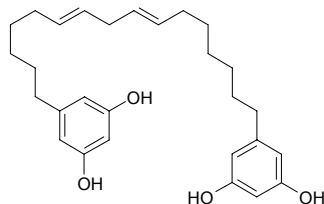
$C_{20}H_{32}O_4$  (336.48). White solid. Source: JIN YE ZI *Craibiodendron yunnanese* (leaf). Ref: 4575.

**8997 Grevillol**

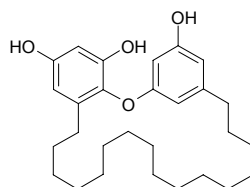
5-Tridecyl-1,3-benzenediol [5259-01-8]  $C_{19}H_{32}O_2$  (292.47). Acicular crystals (benzene), mp 82~83°C. Pharm: Dermatitic (causes contact dermatitis); 5-lipoxygenase inhibitor; irritant (to skin). Source: YIN HUA *Grevillea robusta*, *Grevillea* spp. Ref: 658, 2108.

**8998 Grevirobstol A**

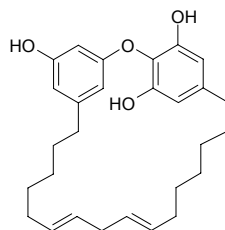
$C_{28}H_{38}O_4$  (438.61). Yellowish oil. Source: YIN HUA *Grevillea robusta* (leaf). Ref: 3905.

**8999 Grevirobstol B**

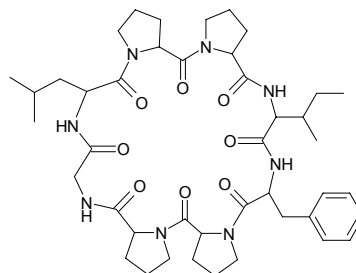
$C_{28}H_{40}O_4$  (440.63). Amorphous powder. Source: YIN HUA *Grevillea robusta* (leaf). Ref: 3905.

**9000 Grevirobstol C**

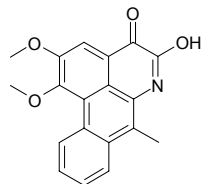
$C_{28}H_{36}O_4$  (436.60). Yellowish oil. Source: YIN HUA *Grevillea robusta* (leaf). Ref: 3905.

**9001 Grifficycloin A**

$C_{43}H_{62}N_8O_8$  (819.02).  $[\alpha]_D^{20} = -132^\circ$  ( $c = 0.12$ , MeOH). Source: DA HUA GE NA XIANG *Goniothalamus griffithii*. Ref: 5453.

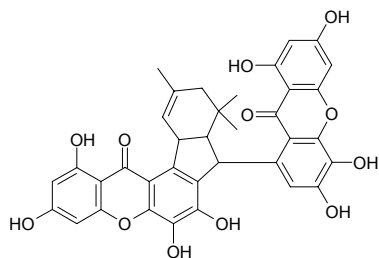
**9002 Griffinin**

$C_{19}H_{15}NO_4$  (321.34). mp > 250°C. Source: DA HUA GE NA XIANG *Goniothalamus griffithii*. Ref: 5453.

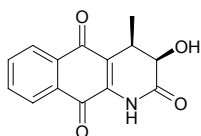


**9003 Griffipavixanthone**

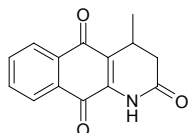
$C_{36}H_{28}O_{12}$  (652.62). **Pharm:** Antioxidant (DPPH scavenger,  $EC_{50}$  = 0.115 $\mu$ g/mL, control BHA,  $EC_{50}$  = 0.136 $\mu$ g/mL, Vitamin E,  $EC_{50}$  = 0.138 $\mu$ g/mL). **Source:** DUO ZHI ZHI TENG HUANG *Garcinia virgata* (stem cortex). **Ref:** 3874.

**9004 Griffithazanone A**

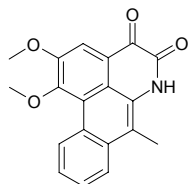
$C_{14}H_{11}NO_4$  (257.25). **Source:** DA HUA GE NA XIANG *Goniothalamus griffithii*. **Ref:** 2447.

**9005 Griffithazanone B**

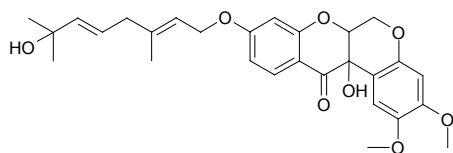
$C_{14}H_{11}NO_3$  (241.25). **Source:** DA HUA GE NA XIANG *Goniothalamus griffithii*. **Ref:** 2447.

**9006 Griffithdione**

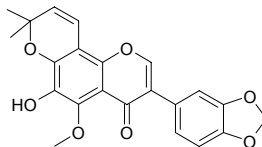
$C_{19}H_{15}NO_4$  (321.34). **Source:** DA HUA GE NA XIANG *Goniothalamus griffithii*. **Ref:** 2447, 5453.

**9007 Griffonianone A**

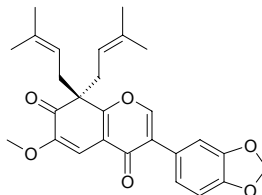
$C_{28}H_{32}O_8$  (496.56). Yellowish amorphous solid. **Source:** *Millettia griffoniana* (root cortex). **Ref:** 5134.

**9008 Griffonianone B**

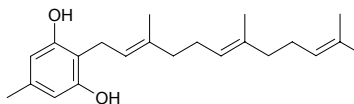
$C_{22}H_{18}O_7$  (394.38). Yellowish amorphous solid. **Source:** *Millettia griffoniana* (root cortex). **Ref:** 5134.

**9009 Griffonianone C**

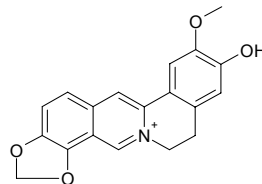
$C_{17}H_{28}O_6$  (448.52). White crystals (MeOH), mp 138~139°C. **Source:** *Millettia griffoniana* (root cortex). **Ref:** 5134.

**9010 Grifolin**

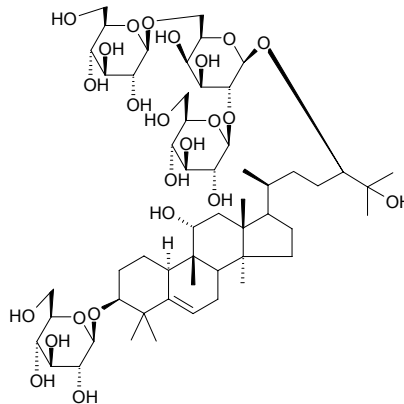
$C_{22}H_{30}O_2$  (326.5). **Pharm:** Antihistamine (inhibits histamine release, rat peritoneal mast cells, compound 48/80-induced). **Source:** MAN SHAN HONG *Rhododendron dauricum* (twig and leaf; yield = 0.0031%) **Ref:** 4755.

**9011 Groenlandicin**

$C_{19}H_{16}NO_4^+$  (322.34). **Pharm:** Cytotoxic (topoisomerase I inhibitor *in vitro*)<sup>[5369]</sup>. **Source:** *Coptis groenlandica*. **Ref:** 1521, 5369.

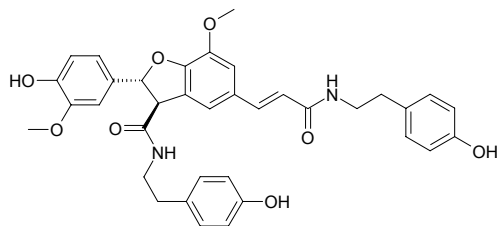
**9012 Grosomoside I**

Mogro-3-*O*- $\beta$ -*D*-glucopyranoside-24-*O* {[ $\beta$ -*D*-glucopyranosyl (2 $\rightarrow$ 1)]-[ $\beta$ -*D*-glucopyranosyl (6 $\rightarrow$ 1)]- $\beta$ -*D*-glucopyranoside}  $C_{54}H_{92}O_{24}$  (1125.32). White amorphous powder. **Source:** LUO HAN GUO *Siraitia grosvenorii* [Syn. *Momordica grosvenorii*]. **Ref:** 4805.

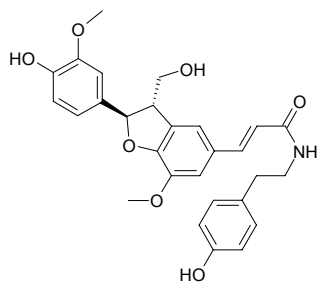


**9013 Grossamide**

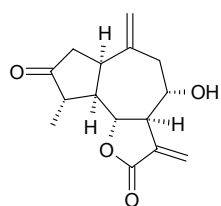
2-(4-Hydroxy-3-methoxyphenyl)-3-[N-2-(4-hydroxyphenyl)ethyl]carbamoyl-5-[N-2-(4-hydroxyphenyl)ethyl]carbamoylethenyl-7-methoxybenzodihydrofuran C<sub>36</sub>H<sub>36</sub>N<sub>2</sub>O<sub>8</sub> (624.70). Yellowish oil. **Pharm:** Cytotoxic (*in vitro*, LNCaP, IC<sub>50</sub> = 33 μmol/L)<sup>[4607]</sup>; feeding deterrent<sup>[4607]</sup>. **Source:** DA MA JIN *Hibiscus cannabinus* (bark), LANG DANG ZI *Hyoscyamus niger* (seed: yield = 0.006%dw)<sup>[4607]</sup>. **Ref:** 4607, 5233.

**9014 Grossamide K**

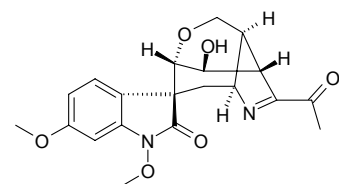
2-(4-Hydroxy-3-methoxyphenyl)-3-hydroxymethyl-5-[N-2-(4-hydroxyphenyl)ethyl]carbamoylethenyl-7-methoxybenzodihydrofuran C<sub>28</sub>H<sub>29</sub>NO<sub>7</sub> (491.55). Yellowish oil. **Source:** DA MA JIN *Hibiscus cannabinus* (bark). **Ref:** 5233.

**9015 Grosheimin**

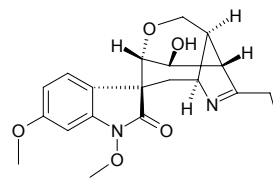
Grosheimin C<sub>15</sub>H<sub>18</sub>O<sub>4</sub> (262.31). mp 200–202°C, [α]<sub>D</sub><sup>20</sup> = +159.9° (c = 1.14, chloroform); mp 205°C (methanol), [α]<sub>D</sub><sup>20</sup> = +137.7° (c = 0.225, methanol). **Pharm:** Antineoplastic; cytotoxic (HeLa, ED<sub>50</sub> = 2.5 μg/mL); insect antifeedant. **Source:** BO LIN JU *Chartolepis intermedia*, CAI JI *Cynara scolymus*, NI JIN ZHAN JU *Venidium decurrens*. **Ref:** 661.

**9016 GS-1**

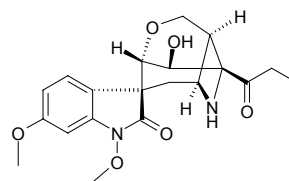
C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O<sub>6</sub> (386.41). Amorphous. **Source:** CHANG LV GOU WEN *Gelsemium sempervirens* (stem and leaf). **Ref:** 4395.

**9017 GS-2**

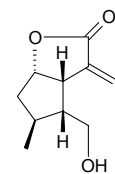
C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O<sub>5</sub> (372.42). Amorphous. **Source:** CHANG LV GOU WEN *Gelsemium sempervirens* (stem and leaf). **Ref:** 4395.

**9018 GS-3**

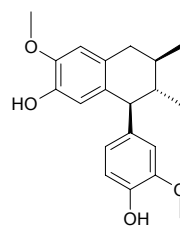
C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O<sub>6</sub> (388.42). Amorphous. **Source:** CHANG LV GOU WEN *Gelsemium sempervirens* (stem and leaf). **Ref:** 4395.

**9019 GSIR-1**

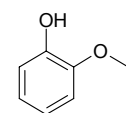
C<sub>10</sub>H<sub>15</sub>O<sub>3</sub> (182.22). Amorphous. **Source:** CHANG LV GOU WEN *Gelsemium sempervirens* (stem and leaf). **Ref:** 4395.

**9020 (+)-Guaiaicin**

C<sub>20</sub>H<sub>24</sub>O<sub>4</sub> (328.41). **Pharm:** Neuroprotective (glutamate-induced neurotoxicity in primary cultures of cortical cells, 0.1 μmol/L, protection rate = (16.7±1.1)%, MK-801: 1.0 μmol/L, protection rate = (83.6±2.0)%, p<0.001, CNQX: 1.0 μmol/L, protection rate = (70.5±1.5)%, p<0.001). **Source:** HONG NAN PI *Machilus thunbergii*. **Ref:** 4927.

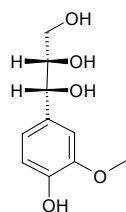
**9021 Guaiacol**

*o*-Methoxy phenol [90-05-1] C<sub>7</sub>H<sub>8</sub>O<sub>2</sub> (124.14). mp 32°C, bp 205°C. **Pharm:** Antitussive (dispels phlegm). **Source:** AN YE *Eucalyptus globulus*, CHAI HU *Bupleurum chinense*, DANG GUI *Angelica sinensis*, HAN QIN *Apium graveolens*, SANG YE *Morus alba*, WU HUA GUO YE *Ficus carica*, *Betula* sp. **Ref:** 2, 658.

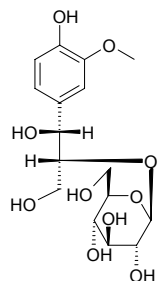


**9022 erythro-Guaiacylglycerol**

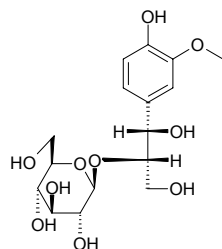
$C_{10}H_{14}O_5$  (214.22). Source: DU ZHONG *Eucommia ulmoides*. Ref: 2.

**9023 D-threo-Guaiacylglycerol 8-β-D-glucopyranoside**

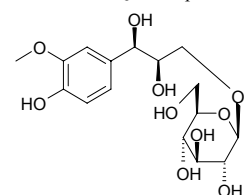
$C_{16}H_{24}O_{10}$  (376.36). White powder,  $[\alpha]_D^{20} = -30.2^\circ$  ( $c = 0.26$ , MeOH). Source: XIAO YE SHI NAN *Photinia parvifolia* (stem). Ref: 4553.

**9024 L-threo-Guaiacylglycerol 8-β-D-glucopyranoside**

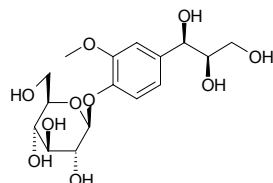
$C_{16}H_{24}O_{10}$  (376.36). White powder. Source: XIAO YE SHI NAN *Photinia parvifolia* (stem). Ref: 4553.

**9025 (1'R,2'R)-Guaiacyl glycerol 3'-O-β-D-glucopyranoside**

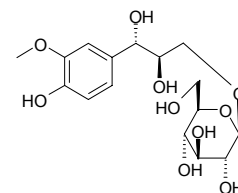
$C_{16}H_{24}O_{10}$  (376.36). Amorphous powder,  $[\alpha]_D^{22} = -13^\circ$  ( $c = 1.0$ , MeOH). Source: HUI QIN *Pimpinella anisum* (fruit). Ref: 4242.

**9026 (1'R,2'R)-Guaiacyl glycerol 4-O-β-D-glucopyranoside**

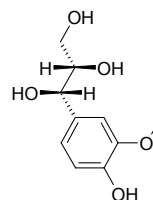
$C_{16}H_{24}O_{10}$  (376.36). Amorphous powder,  $[\alpha]_D^{21} = -50^\circ$  ( $c = 0.5$ , MeOH). Source: HUI QIN *Pimpinella anisum* (fruit). Ref: 4242.

**9027 (1'S,2'R)-Guaiacyl glycerol 3'-O-β-D-glucopyranoside**

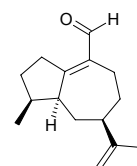
$C_{16}H_{24}O_{10}$  (376.36). Amorphous powder,  $[\alpha]_D^{22} = -20^\circ$  ( $c = 0.8$ , MeOH). Source: HUI QIN *Pimpinella anisum* (fruit). Ref: 4242.

**9028 threo-Guaiacylglycerol**

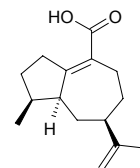
$C_{10}H_{14}O_5$  (214.22). Source: DU ZHONG *Eucommia ulmoides*. Ref: 2.

**9029 (-)-Guaia-1(10),11-dien-15-al**

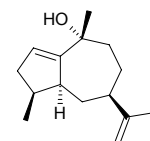
[133593-95-0]  $C_{15}H_{22}O$  (218.34). Source: CHEN XIANG *Aquilaria agallocha*. Ref: 13.

**9030 (-)-Guaia-1(10),11-dien-15-carboxylic acid**

$C_{15}H_{22}O_2$  (234.34). Source: CHEN XIANG *Aquilaria agallocha*. Ref: 13.

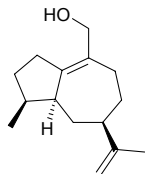
**9031 (-)-Guaia-1,11-dien-10α-ol**

$C_{15}H_{24}O$  (220.36). White solid, mp 117~118°C,  $[\alpha]_D = -66.1^\circ$  ( $c = 0.40$ ,  $CHCl_3$ ); mp 118.5°C,  $[\alpha]_D = -79.2^\circ$  ( $c = 0.71$ ,  $CHCl_3$ ). Pharm: Antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, *in vitro*, MLC > 200mmol/L)<sup>[2551]</sup>. Source: GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*]. Ref: 2551.

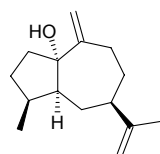


**9032 (-)-Guaia-1(10),11-dien-15-ol**

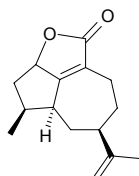
$C_{15}H_{24}O$  (220.36). Colorless oil,  $[\alpha]_D = -8.3^\circ$  ( $c = 0.15$ , EtOH);  $[\alpha]_D = -11.6^\circ$  ( $c = 1.0$ , EtOH). **Pharm:** Antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, *in vitro*, MLC > 200mmol/L)<sup>[2551]</sup>. **Source:** CHEN XIANG *Aquilaria agallocha*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*]. **Ref:** 13, 2551.

**9033 (+)-Guaia-10(15),11-dien-1 $\alpha$ -ol**

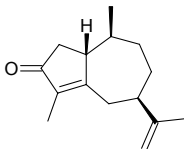
$C_{15}H_{24}O$  (220.36). White solid, mp 64–65°C,  $[\alpha]_D = +67.6^\circ$  ( $c = 0.23$ ,  $CHCl_3$ ); 69.5°C,  $[\alpha]_D = +67.1^\circ$  ( $c = 0.73$ ,  $CHCl_3$ ). **Pharm:** Antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, *in vitro*, MLC > 200mmol/L). **Source:** GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*]. **Ref:** 2551.

**9034 (-)-Guaia-1(10),11-dien-15,2-olide**

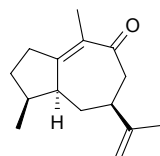
$C_{15}H_{20}O_2$  (232.33). **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 13.

**9035 1 $\alpha$ ,7 $\alpha$ ,10 $\alpha$ H-Guaia-4,11-dien-3-one**

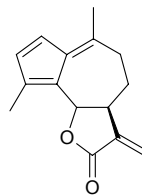
$C_{15}H_{22}O$  (218.34). Colorless oil,  $[\alpha]_D^{24} = +63.1^\circ$  ( $c = 0.23$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic ( $P_{388}$ ,  $ED_{50} = 1.19\mu g/mL$ , control Mithramycin,  $ED_{50} = 0.08\mu g/mL$ ; HT29,  $ED_{50} > 50\mu g/mL$ , Mithramycin,  $ED_{50} = 0.07\mu g/mL$ ; A549,  $ED_{50} > 50\mu g/mL$ , Mithramycin,  $ED_{50} = 0.06\mu g/mL$ ). **Source:** PI ZHEN XING YAO HUA *Wikstroemia lanceolata* (stem and root). **Ref:** 4947.

**9036 (+)-Guaia-1(10),11-dien-9-one**

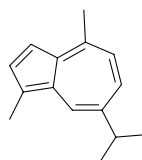
$C_{15}H_{22}O$  (218.34). Oil,  $[\alpha]_D^{20} = +27.2^\circ$  ( $c = 0.07$ ,  $CHCl_3$ ). **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 13, 1521.

**9037 Guaia-1(10),2,4,11(13)-tetraen-12,6 $\xi$ -olide**

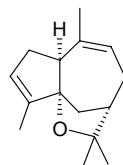
$C_{15}H_{16}O_2$  (228.29). Gum,  $[\alpha]_D = -34.2^\circ$  ( $c = 0.12$ ,  $CHCl_3$ ). **Source:** YI KUA *Artemisia myriantha* (aerial parts). **Ref:** 4618.

**9038 Guaiazulene**

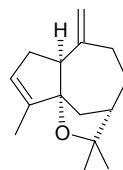
[489-84-9]  $C_{15}H_{18}$  (198.31). Blue oil, mp 31.5°C, bp 165–170°C/10mmHg, 176°C/17mmHg. **Pharm:** Anti-inflammatory; 5 $\alpha$ -reductase inhibitor ( $IC_{50} = (100.8\pm 9.3)\mu mol/L$ ; control Finasteride,  $IC_{50} = (0.38\pm 0.06)\mu mol/L$ ;  $\alpha$ -Linolenic acid,  $IC_{50} = (160.3\pm 24.6)\mu mol/L$ )<sup>[5398]</sup>. **Source:** MU<sup>(3)</sup> JU *Matricaria chamomilla* [Syn. *Matricaria recutita*], YU CHUANG MU *Guajacum officinale*. **Ref:** 658, 5398.

**9039 (-)-(1S\*,5S\*,7S\*)-Guai-3,9-dien-5,11-oxide**

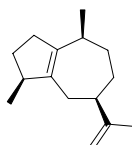
2,2,6,9-Tetramethyl-3,4,6a,7-tetrahydro-2H-3,9a-methanocyclopent[b]oxocin  $C_{15}H_{22}O$  (218.34). Colorless oil. **Source:** XIAO E TAI *Mylia taylorii* (essential oil), LUO XIAO E TAI *Mylia nuda* (essential oil). **Ref:** 3840.

**9040 (+)-(1S\*,5S\*,7S\*)-Guai-3,10(14)-dien-5,11-oxide**

2,2,9-Trimethyl-6-methylene-3,4,5,6,6a,7-hexahydro-2H-3,9a-methanocyclopent[b]oxocin  $C_{15}H_{22}O$  (218.34). Colorless oil. **Source:** XIAO E TAI *Mylia taylorii* (essential oil), LUO XIAO E TAI *Mylia nuda* (essential oil). **Ref:** 3840.

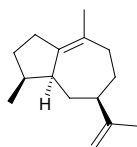
**9041  $\alpha$ -Guaiene**

[3691-12-1]  $C_{15}H_{24}$  (204.36). bp 78–79°C/2.5mmHg. **Source:** CANG ZHU *Atractylodes lancea*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2, 660.

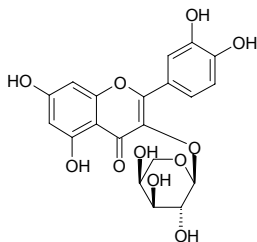


**9042  $\delta$ -Guaiene**

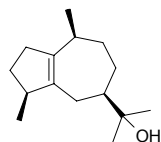
[3691-11-0] C<sub>15</sub>H<sub>24</sub> (204.36). bp 118°C/8mmHg. Source: CANG ZHU *Atractylodes lancea*, DANG SHEN *Codonopsis pilosula*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], HUA DONG LAN CI TOU *Echinops grijstii*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2, 660.

**9043 Guaijaverin**

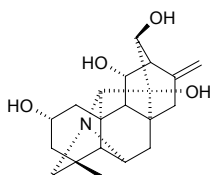
Quercetin-3-*O*-arabinoside; Foeniculin [22255-13-6] C<sub>20</sub>H<sub>18</sub>O<sub>11</sub> (434.36). mp 256°C. Source: DIAO GAN MA *Celastrus angulatus*, FAN SHI LIU GAN *Psidium guajava*, FAN SHI LIU YE *Psidium guajava*, HE SHOU WU *Polygonum multiflorum*, HUI XIANG JING YE *Foeniculum vulgare*, HU ZHANG *Polygonum cuspidatum*. Ref: 2, 6.

**9044 Guaiol**

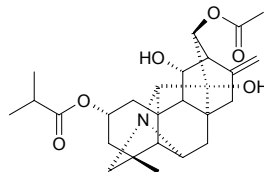
1(5)-Guaien-11-ol; (-)-Guaiol [489-86-1] C<sub>15</sub>H<sub>26</sub>O (222.37). mp 91°C, bp 288°C. Pharm: 5 $\alpha$ -Reductase inhibitor (IC<sub>50</sub> = (81.6 $\pm$ 10.2) $\mu$ mol/L; control Finasteride, IC<sub>50</sub> = (0.38 $\pm$ 0.06) $\mu$ mol/L;  $\alpha$ -Linolenic acid, IC<sub>50</sub> = (160.3 $\pm$ 24.6) $\mu$ mol/L)<sup>[5398]</sup>. Source: AN YE *Eucalyptus globulus*, CANG ZHU *Atractylodes lancea*, DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], HOU PO *Magnolia officinalis*, NING MENG *Citrus limon*, QIANG HUO *Notopterygium incisum*. Ref: 2, 660, 5398.

**9045 Guan-fu aminealcohol**

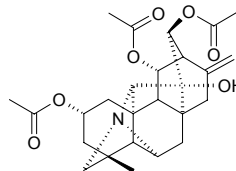
C<sub>20</sub>H<sub>27</sub>NO<sub>4</sub> (345.44). Source: HUANG HUA WU TOU *Aconitum coreanum* (tuberoïd). Ref: 4593.

**9046 Guan-fu base F**

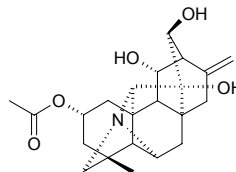
C<sub>26</sub>H<sub>35</sub>NO<sub>6</sub> (457.57). Source: HUANG HUA WU TOU *Aconitum coreanum* (tuberoïd). Ref: 4593.

**9047 Guan-fu base G**

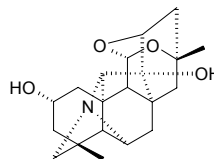
C<sub>26</sub>H<sub>33</sub>NO<sub>7</sub> (471.56). Source: HUANG HUA WU TOU *Aconitum coreanum* (tuberoïd). Ref: 4593.

**9048 Guan-fu base I**

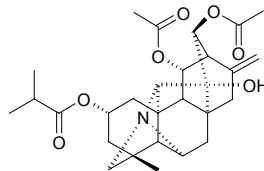
C<sub>22</sub>H<sub>29</sub>NO<sub>5</sub> (387.48). Source: HUANG HUA WU TOU *Aconitum coreanum* (tuberoïd). Ref: 4593.

**9049 Guan-fu base K**

C<sub>20</sub>H<sub>27</sub>NO<sub>4</sub> (345.44). Source: HUANG HUA WU TOU *Aconitum coreanum* (tuberoïd). Ref: 4593.

**9050 Guan-fu base P**

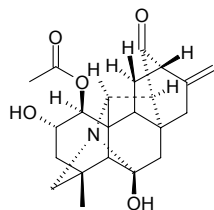
11,13-Diacetyl-14-hydroxy-2-isobutyryl hetisine C<sub>28</sub>H<sub>37</sub>NO<sub>7</sub> (499.61). Yellowish resin. Source: HUANG HUA WU TOU *Aconitum coreanum* (tuberoïd). Ref: 4593.



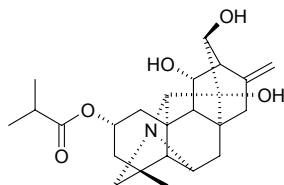


**9051 Guanfu base Q**

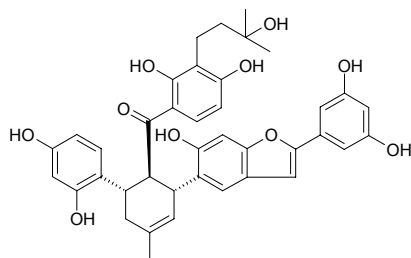
13-Dehydro-1 $\beta$ -acetyl-2 $\alpha$ ,6 $\beta$ -dihydroxyhetisine C<sub>22</sub>H<sub>27</sub>NO<sub>5</sub> (385.46). Colorless needles, mp 235–236°C. Source: HUANG HUA WU TOU *Aconitum coreanum* (stem and leaf). Ref: 4872.

**9052 Guan-fu base Z**

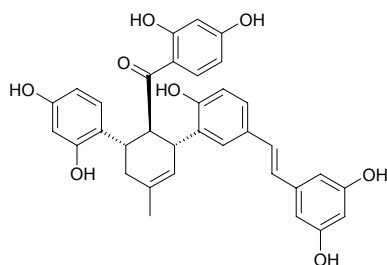
C<sub>24</sub>H<sub>33</sub>NO<sub>5</sub> (415.53). Source: HUANG HUA WU TOU *Aconitum coreanum* (tuberoid). Ref: 4593.

**9053 Guangsangon A**

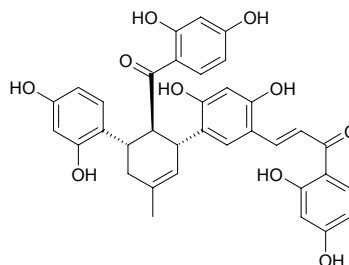
C<sub>39</sub>H<sub>38</sub>O<sub>10</sub> (666.73). Yellow amorphous powder,  $[\alpha]_D^{29} = -408.5^\circ$  ( $c = 0.13$ , MeOH). Pharm: Antioxidant (100 $\mu$ mol/L, InRt of MDA = 102.7%, control Vitamin E, InRt of MDA = 81.5%; 10 $\mu$ mol/L, InRt of MDA = 84.9%, Vitamin E, InRt of MDA = 33.9%); anti-inflammation (polymorphonuclear leukocytes, lysosome enzyme release inhibitor, 10 $\mu$ mol/L, InRt = 19.0%,  $p < 0.05$ , control Ginkgolide B, InRt = 58.9%). Source: NAI SANG *Morus macrourea* (stem cortex). Ref: 5013.

**9054 Guangsangon B**

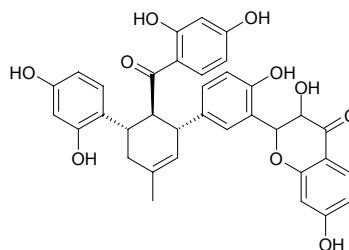
C<sub>34</sub>H<sub>30</sub>O<sub>8</sub> (566.61). Brown amorphous powder,  $[\alpha]_D^{29} = -394.7^\circ$  ( $c = 0.11$ , MeOH). Pharm: Antioxidant (100 $\mu$ mol/L, InRt of MDA = 95.1%, control Vitamin E, InRt of MDA = 81.5%; 10 $\mu$ mol/L, InRt of MDA = 83.7%, Vitamin E, InRt of MDA = 33.9%); anti-inflammation (polymorphonuclear leukocytes, lysosome enzyme release inhibitor, 10 $\mu$ mol/L, InRt = 57.3%,  $p < 0.001$ , control Ginkgolide B, InRt = 58.9%). Source: NAI SANG *Morus macrourea* (stem cortex). Ref: 5013.

**9055 Guangsangon C**

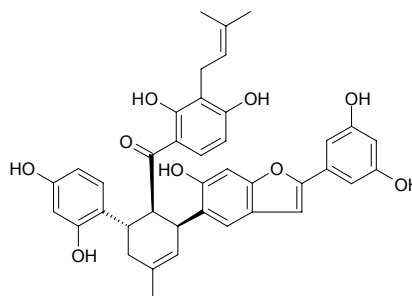
C<sub>35</sub>H<sub>30</sub>O<sub>10</sub> (610.62). Yellow amorphous powder,  $[\alpha]_D^{29} = -412.8^\circ$  ( $c = 0.13$ , MeOH). Pharm: Antioxidant (100 $\mu$ mol/L, InRt of MDA = 96.2%, control Vitamin E, InRt of MDA = 81.5%; 10 $\mu$ mol/L, InRt of MDA = 81.7%, Vitamin E, InRt of MDA = 33.9%). Source: NAI SANG *Morus macrourea* (stem cortex). Ref: 5013.

**9056 Guangsangon D**

C<sub>35</sub>H<sub>30</sub>O<sub>10</sub> (610.62). Yellow amorphous powder,  $[\alpha]_D^{29} = -108.3^\circ$  ( $c = 0.13$ , MeOH). Pharm: Antioxidant (100 $\mu$ mol/L, InRt of MDA = 90.1%, control Vitamin E, InRt of MDA = 81.5%; 10 $\mu$ mol/L, InRt of MDA = 77.6%, Vitamin E, InRt of MDA = 33.9%); anti-inflammation (polymorphonuclear leukocytes, lysosome enzyme release inhibitor, 10 $\mu$ mol/L, InRt = 24.3%,  $p < 0.05$ , control Ginkgolide B, InRt = 58.9%). Source: NAI SANG *Morus macrourea* (stem cortex). Ref: 5013.

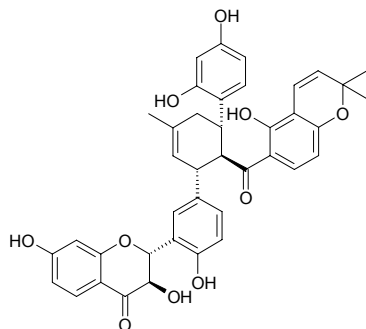
**9057 Guangsangon E**

C<sub>39</sub>H<sub>36</sub>O<sub>9</sub> (648.72). Brown amorphous powder,  $[\alpha]_D^{29} = +139.7^\circ$  ( $c = 0.11$ , MeOH). Pharm: Antioxidant (100 $\mu$ mol/L, InRt of MDA = 94.8%, control Vitamin E, InRt of MDA = 81.5%; 10 $\mu$ mol/L, InRt of MDA = 88.1%, Vitamin E, InRt of MDA = 33.9%). Source: NAI SANG *Morus macrourea* (stem cortex). Ref: 5013.

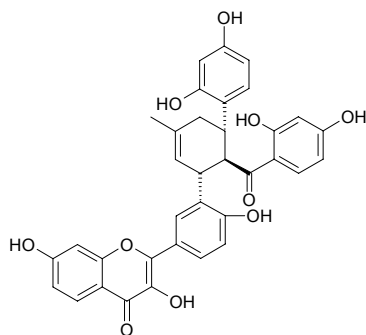


**9058 Guangsangon F**

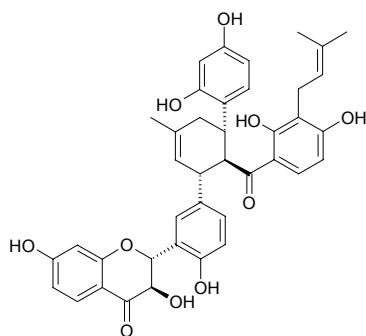
$C_{40}H_{36}O_{10}$  (676.73). Brown amorphous powder,  $[\alpha]_D^{21} = -112.1^\circ$  ( $c = 0.13$ , MeOH). Source: NAI SANG *Morus macroua* (stem cortex). Ref: 3891.

**9059 Guangsangon G**

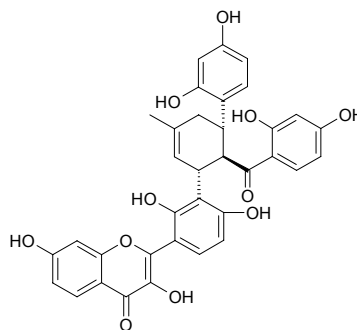
$C_{35}H_{28}O_{10}$  (608.61). Yellow amorphous powder,  $[\alpha]_D^{21} = -469.1^\circ$  ( $c = 0.11$ , MeOH). Source: NAI SANG *Morus macroua* (stem cortex). Ref: 3891.

**9060 Guangsangon H**

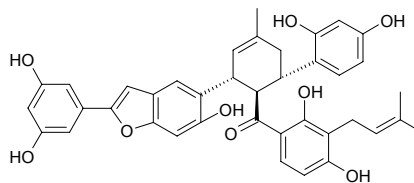
$C_{40}H_{38}O_{10}$  (678.74). Yellow amorphous powder,  $[\alpha]_D^{21} = -127.9^\circ$  ( $c = 0.15$ , MeOH). Pharm: Antioxidant (to determine inhibitory rates of malondialdehyde (MDA) (H. Lu, et al., *Chem Biol Interact*, 1991, 78, 77-84.),  $10\mu\text{mol/L}$ , InRt = 93.1%, control Vitamin E, InRt = 33.4%); anti-inflammatory (to determine release of lysosome enzyme from polymorphonuclear (PMN) leukocytes induced by PAF of rats,  $10\mu\text{mol/L}$ , InRt = 49.4%, control Ginkgolide B, InRt = 58.9%). Source: NAI SANG *Morus macroua* (stem cortex). Ref: 3891.

**9061 Guangsangon I**

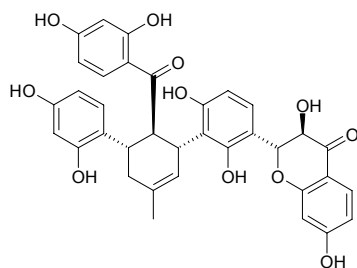
$C_{35}H_{28}O_{11}$  (624.61). Brown amorphous powder,  $[\alpha]_D^{21} = -470.5^\circ$  ( $c = 0.17$ , MeOH). Pharm: Antioxidant (to determine inhibitory rates of malondialdehyde (MDA) (H. Lu, et al., *Chem Biol Interact*, 1991, 78, 77-84.),  $10\mu\text{mol/L}$ , InRt = 93.9%, control Vitamin E, InRt = 33.4%); anti-inflammatory (to determine release of lysosome enzyme from polymorphonuclear (PMN) leukocytes induced by PAF of rats,  $10\mu\text{mol/L}$ , InRt = 43.8%, control Ginkgolide B, InRt = 58.9%). Source: NAI SANG *Morus macroua* (stem cortex). Ref: 3891.

**9062 Guangsangon J**

$C_{39}H_{36}O_9$  (648.72). Brown amorphous powder,  $[\alpha]_D^{21} = -419.7^\circ$  ( $c = 0.16$ , MeOH). Pharm: Antioxidant (to determine inhibitory rates of malondialdehyde (MDA),  $10\mu\text{mol/L}$ , InRt = 91.1%, control Vitamin E, InRt = 33.4%); anti-inflammatory (to determine release of lysosome enzyme from polymorphonuclear (PMN) leukocytes induced by PAF of rats,  $10\mu\text{mol/L}$ , InRt = 41.3%, control Ginkgolide B, InRt = 58.9%). Source: NAI SANG *Morus macroua* (stem cortex). Ref: 3891.

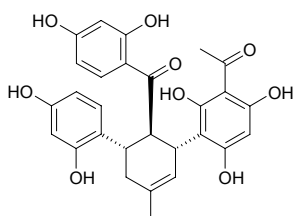
**9063 Guangsangon K**

$C_{35}H_{30}O_{11}$  (626.62). Brown amorphous powder,  $[\alpha]_D^{25} = -178.5^\circ$  ( $c = 0.14$ , MeOH). Pharm: Antioxidant (microsomal lipid peroxidation induced by ferrous-cysteine *in vitro*, determined by the content of malondialdehyde,  $10\mu\text{mol/L}$ , InRt = 91.8%, control Vitamin E, InRt = 18.2%). Source: NAI SANG *Morus macroua*. Ref: 2570.

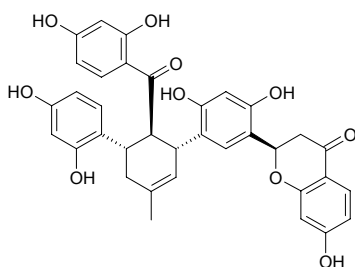


**9064 Guangsangon L**

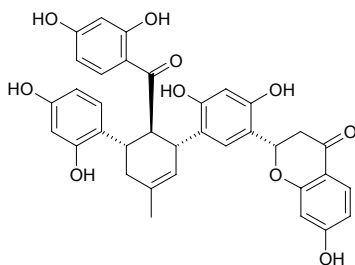
$C_{28}H_{26}O_9$  (506.51). Yellow amorphous powder,  $[\alpha]_D^{25} = -389.3^\circ$  ( $c = 0.14$ , MeOH). **Pharm:** Antioxidant (microsomal lipid peroxidation induced by ferrous-cysteine *in vitro*, determined by the content of malondialdehyde,  $10\mu\text{mol/L}$ , InRt = 97.6%, control Vitamin E, InRt = 18.2%). **Source:** NAI SANG *Morus macrourea*. **Ref:** 2570.

**9065 Guangsangon M**

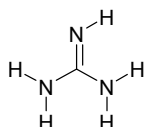
$C_{35}H_{30}O_{10}$  (610.62). Brown amorphous powder,  $[\alpha]_D^{25} = -276.5^\circ$  ( $c = 0.12$ , MeOH). **Pharm:** Antioxidant (microsomal lipid peroxidation induced by ferrous-cysteine *in vitro*, determined by the content of malondialdehyde,  $10\mu\text{mol/L}$ , InRt = 98.3%, control Vitamin E, InRt = 18.2%). **Source:** NAI SANG *Morus macrourea*. **Ref:** 2570.

**9066 Guangsangon N**

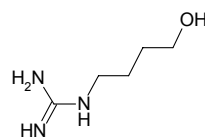
$C_{35}H_{30}O_{10}$  (610.62). Brown amorphous powder,  $[\alpha]_D^{25} = -335.3^\circ$  ( $c = 0.13$ , MeOH). **Pharm:** Antioxidant (microsomal lipid peroxidation induced by ferrous-cysteine *in vitro*, determined by the content of malondialdehyde,  $10\mu\text{mol/L}$ , InRt = 100%, control Vitamin E, InRt = 18.2%). **Source:** NAI SANG *Morus macrourea*. **Ref:** 2570.

**9067 Guanidine**

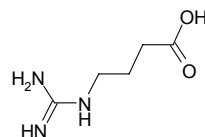
[113-00-8]  $CH_5N_3$  (59.07). **Pharm:** Supertoxic agent (orl). **Source:** GUI GAI *Coprinus atramentarius*, QIU YIN *Pheretima aspergillum*; *Allolobophora caliginosa trapezoides*, SHUI NIU JIAO *Bubalus bubalis*. **Ref:** 6.

**9068 4-Guanidino-1-butanol**

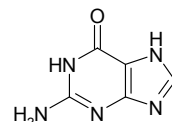
$C_5H_{13}N_3O$  (131.18). **Source:** YI MU CAO *Leonurus heterophyllus* [Syn. *Leonurus artemisia*]. **Ref:** 6.

**9069 γ-Guanidinobutyric acid**

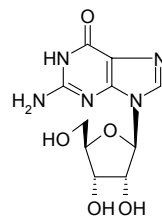
4-Guanidino-butyric acid [463-00-3]  $C_5H_{11}N_3O_2$  (145.16). mp 276–278°C (dec). **Source:** WANG GUA ZI *Trichosanthes cucumeroides*, WEI NAO *Erinaceus europaeus*; *Hemiechinus dauuricus*; *Hemiechinus auritus*, YI MU CAO *Leonurus heterophyllus* [Syn. *Leonurus artemisia*]. **Ref:** 6.

**9070 Guanine (1,7-Dihydro-form)**

[73-40-5]  $C_5H_5N_5O$  (151.13). mp > 300°C. **Pharm:** Nitrogen-containing base occurring in DNA and RNA. **Source:** DONG CHONG XIA CAO *Cordyceps sinensis* (dried fungal stroma growing on larva of a caterpillar: content = 0.018%)<sup>[5512]</sup>, QIU YIN *Pheretima aspergillum*; *Allolobophora caliginosa trapezoides*, REN GONG YONG CHONG CAO *Cordyceps militaris* cv. (sclerotium and stroma: content = 0.011%)<sup>[5512]</sup>. **Ref:** 6, 5512.

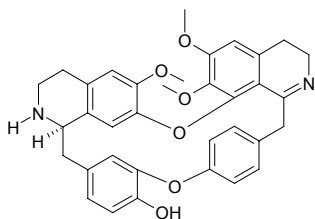
**9071 Guanosine**

9-β-Ribofuranosylguanine [118-00-3]  $C_{10}H_{13}N_5O_5$  (283.25). mp 230–235°C (dec). **Source:** BAN XIA *Pinellia ternata* (dried tuber: content scope of 4 origins = 0.0038%–0.0220%, mean content = 0.0107%)<sup>[5508]</sup>, DANG GUI *Angelica sinensis* (root: content = 0.019%)<sup>[5514]</sup>, DONG CHONG XIA CAO *Cordyceps sinensis* (dried fungal stroma growing on larva of a caterpillar: content = 0.135%)<sup>[5512]</sup>, GUAN HUA ROU CONG RONG *Cistanche tubulosa* (fleshy stem: content = 0.007%)<sup>[5514]</sup>, HUANG QI *Astragalus membranaceus* (root: content = 0.032%)<sup>[5514]</sup>, MAI DONG *Ophiopogon japonicus* (tuberoid: content = 0.003%)<sup>[5514]</sup>, MAI JIAO *Claviceps purpurea*, REN GONG YONG CHONG CAO *Cordyceps militaris* cv. (sclerotium and stroma: content = 0.274%)<sup>[5512]</sup>, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (root: content = 0.035%)<sup>[5514]</sup>. **Ref:** 2, 5508, 5512, 5514.

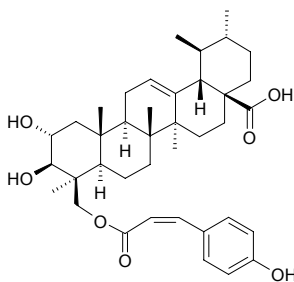


**9072 (+)-Guatteboline**

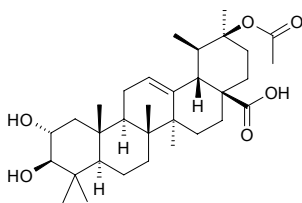
$C_{35}H_{34}N_2O_6$  (578.67). Amorphous,  $[\alpha]_D^{20} = +138^\circ$  ( $c = 0.8$ ,  $CHCl_3$ ). **Pharm:** Antitrypanosomal (inhibits trypomastigote form of *Trypanosoma cruzi*, strain Y,  $IC_{50} = 57.9\mu g/mL$ ,  $IC_{90} = 96.5\mu g/mL$ )<sup>[3976]</sup>; antimalarial (*Plasmodium falciparum* D6,  $LC_{50} = 207.5ng/mL$ ,  $SI = 29$ ; *Plasmodium falciparum* W2,  $LC_{50} = 72.5ng/mL$ ,  $SI = 83$ ); cytotoxic (KB,  $LC_{50} = 6000ng/mL$ )<sup>[3976]</sup>. **Source:** *Guatteria boliviana* (stem cortex). **Ref:** 3976.

**9073 Guavacoumaric acid**

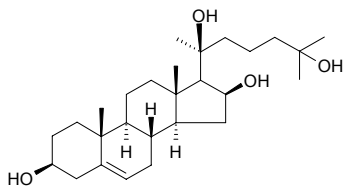
2 $\alpha$ ,3 $\beta$ -Dihydroxy-24-*p*-z-coumaroyloxyurs-12-en-28-oic acid  $C_{39}H_{54}O_7$  (634.86). Colorless needles ( $CHCl_3$ :MeOH = 1:1), mp 188~190°C. **Source:** FAN SHI LIU YE *Psidium guajava*. **Ref:** 1922.

**9074 Guavanoic acid**

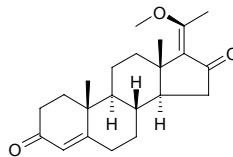
20 $\beta$ -Acetoxy-2 $\alpha$ ,3 $\beta$ -dihydroxyurs-12-en-28-oic acid  $C_{32}H_{50}O_6$  (530.75). Colorless needles ( $CHCl_3$ :MeOH = 1:1), mp 221~222°C. **Source:** FAN SHI LIU YE *Psidium guajava*. **Ref:** 1922.

**9075 Guggulsterol Y**

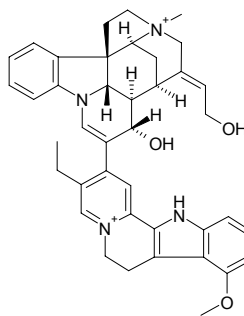
$C_{27}H_{46}O_4$  (434.67). Needles, mp 236~238°C (MeCN),  $[\alpha]_D = -28.8^\circ$  ( $c = 0.5$ , MeOH) **Source:** A MAN SU DAN MO YAO *Commiphora wightii*. **Ref:** 2062.

**9076 Guggulsterone M**

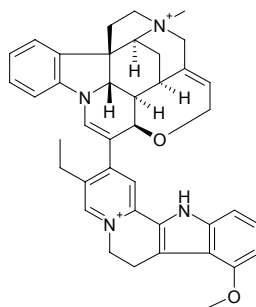
$C_{22}H_{30}O_3$  (342.48). Needles (mp 206~208°C (MeCN),  $[\alpha]_D = +93^\circ$  ( $c = 0.65$ , MeOH). **Source:** A MAN SU DAN MO YAO *Commiphora wightii*. **Ref:** 2062.

**9077 Guiachry sine**

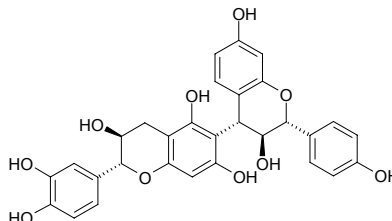
$C_{40}H_{44}N_4O_3$  (628.82). Orange-colored amorphous powder. **Pharm:** Supertoxic agent ( $LD_{100} = 4\sim 6mg/kg$ , death occurs fairly rapidly in 5~10min)<sup>[3943]</sup>; neuromuscular toxicity (neuromuscular transmission inhibitor,  $IC_{50} = 12.5\mu mol/L$ ; Venezuelan calabash curare,  $IC_{50} = 6.5\mu mol/L$ )<sup>[5202]</sup>. **Source:** *Strychnos guianensis* (stem cortex). **Ref:** 3943, 5202.

**9078 Guiaflavine**

$C_{40}H_{42}N_4O_2$  (610.81). **Pharm:** Neuromuscular toxicity (neuromuscular transmission inhibitor,  $IC_{50} = 25.5\mu mol/L$ ; Venezuelan calabash curare,  $IC_{50} = 6.5\mu mol/L$ )<sup>[5202]</sup>. **Source:** *Strychnos guianensis* (stem cortex). **Ref:** 3943, 5202.

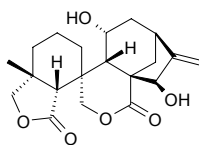
**9079 Guibourtinidol-(4 $\alpha$ →6)-catechin**

[27277-74-7]  $C_{30}H_{26}O_{10}$  (546.54). **Pharm:** Tanning agent. **Source:** LE SHI JIN HE HUAN *Acacia luederitzii*. **Ref:** 658.

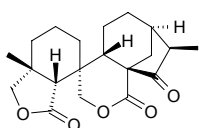


**9080 Guidongnin**

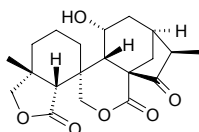
Guidongnin A  $C_{20}H_{26}O_6$  (362.43). mp 235–237°C,  $[\alpha]_D^{22} = -160^\circ$  ( $c = 1.0$ ,  $C_5H_5N$ ). **Pharm:** Cytotoxic (*in vitro*, K562,  $IC_{50} = 0.3\mu\text{g/mL}$ ; control *cis*-Platin,  $IC_{50} = 0.52\mu\text{g/mL}$ )<sup>[4732]</sup>. **Source:** DONG LING CAO *Rabdosia rubescens*, LU SHI DONG LING CAO *Isodon rubescens* var. *lushiensis* (leaf: yield = 0.0026%dw)<sup>[4732]</sup>. **Ref:** 4067, 4732.

**9081 Guidongnin B**

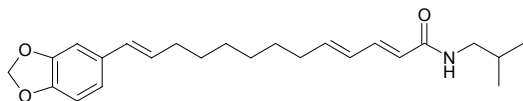
Ludongnin B  $C_{20}H_{26}O_5$  (346.43). mp 296–299°C. **Pharm:** Cytotoxic inactive (*in vitro*, K562,  $IC_{50} > 50\mu\text{g/mL}$ ; control *cis*-Platin,  $IC_{50} = 0.52\mu\text{g/mL}$ )<sup>[4732]</sup>. **Source:** LU SHI DONG LING CAO *Isodon rubescens* var. *lushiensis* (leaf: yield = 0.00021%dw). **Ref:** 4067, 4732.

**9082 Guidongnin C**

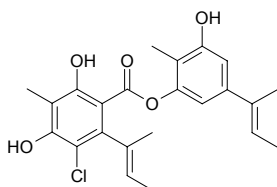
$C_{20}H_{26}O_6$  (362.43). **Pharm:** Cytotoxic inactive (*in vitro*, K562,  $IC_{50} > 50\mu\text{g/mL}$ ; control *cis*-Platin,  $IC_{50} = 0.52\mu\text{g/mL}$ )<sup>[4732]</sup>. **Source:** LU SHI DONG LING CAO *Isodon rubescens* var. *lushiensis* (leaf: yield = 0.00016%dw). **Ref:** 4732.

**9083 Guineensine**

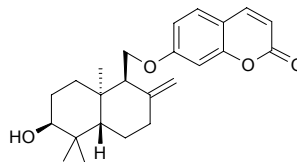
$C_{24}H_{33}NO_3$  (383.54). Colorless crystals; crystalline solid. **Pharm:** Protective gastric lesions (rat, ethanol-induced, 25mg/kg orl, length = (78.6±13.0)mm, control, length = (118.6±16.2)mm, InRt = 33.7%; indomethacin-induced in rats, dose, 25mg/kg orl, length = (54.3±9.8)mm, control, length = (89.5±9.8)mm, InRt = 39.3%)<sup>[4935]</sup>; ACAT inhibitor (dose-dependent manner,  $IC_{50} = 3.12\mu\text{mol/L}$ )<sup>[5005]</sup>. **Source:** BI BA *Piper longum* (fruit), *Piper chaba* (fruit). **Ref:** 4935, 5005.

**9084 Guisinol**

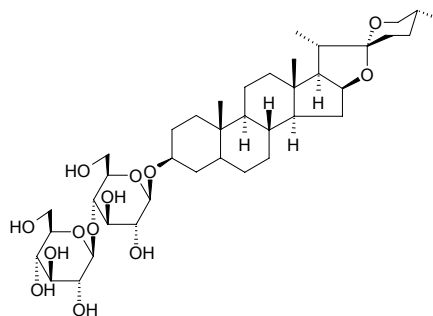
$C_{23}H_{35}ClO_5$  (416.91). Yellowish oil. **Source:** *Emericella unguis*. **Ref:** 1890.

**9085 Gummosin**

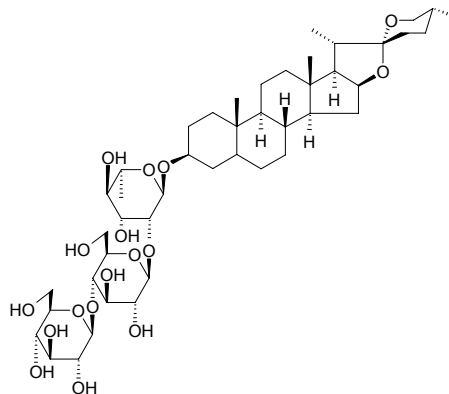
$C_{24}H_{30}O_4$  (382.50). **Source:** A WEI *Ferula assafoetida* (root). **Ref:** 5243.

**9086 Gurillin G**

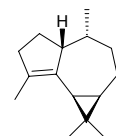
$C_{39}H_{64}O_{13}$  (740.94). **Source:** WAN QU TIAN MEN DONG *Asparagus curillus*. **Ref:** 697.

**9087 Gurillin H**

$C_{45}H_{74}O_{17}$  (887.08). **Source:** WAN QU TIAN MEN DONG *Asparagus curillus*. **Ref:** 697.

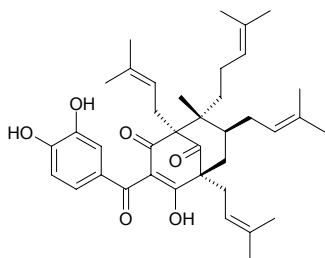
**9088 α-Guriunene**

$C_{15}H_{24}$  (204.36). bp 114–116°C/10mmHg. **Source:** BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*], GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], NAN HE SHI *Daucus carota*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], SHAN NAI *Kaempferia galanga*, SHUI CAI *Menyanthes trifoliata*. **Ref:** 2, 660.

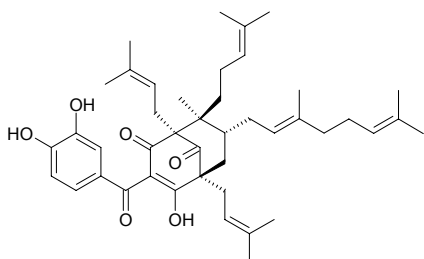


**9089 Guttiferone A**

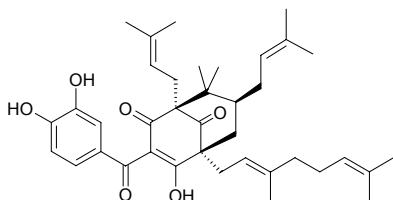
$C_{38}H_{50}O_6$  (602.82). Yellow oil,  $[\alpha]_D^{20} = +32^\circ$  ( $c = 0.04$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (hmn ovarian A2780 cell line,  $IC_{50} = 6.8\mu g/mL$ , control Actinomycin D,  $IC_{50} = 0.003\mu g/mL$ ). **Source:** *Garcinia macrophylla* (twig). **Ref:** 5442.

**9090 Guttiferone G**

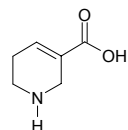
$C_{43}H_{58}O_6$  (670.54). Yellow amorphous powder,  $[\alpha]_D^{20} = -25^\circ$  ( $c = 0.04$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (hmn ovarian A2780 cell line,  $IC_{50} = 8.0\mu g/mL$ , control Actinomycin D,  $IC_{50} = 0.003\mu g/mL$ ). **Source:** *Garcinia macrophylla* (twig). **Ref:** 5442.

**9091 Guttiferone I**

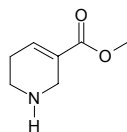
$C_{38}H_{50}O_6$  (602.82). Bright yellow solid, mp 60~62°C,  $[\alpha]_D = -68^\circ$  ( $c = 1.2$ ,  $CHCl_3$ ). **Source:** GE LI FEI SI TENG HUANG *Garcinia griffithii* (stem cortex). **Ref:** 5311.

**9092 Guvacine**

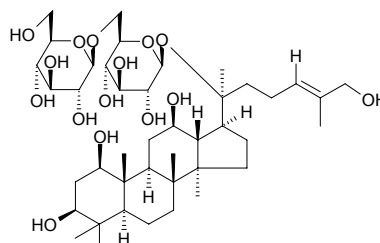
[498-96-4]  $C_6H_9NO_2$  (127.14). mp 285°C (dec). **Pharm:** Inhibits absorption of GABA and  $\beta$ -alanine (cat, myeloid section and cerebral section); Antidyskinetic (inhibits spontaneous movement, mus, 50~100mg/kg, ip). **Source:** BING LANG *Areca catechu* (dried ripe seed: content scope 0.19%~0.72%, middle value = 0.46%<sup>[5508]</sup>). **Ref:** 6, 658, 5508.

**9093 Guvacoline**

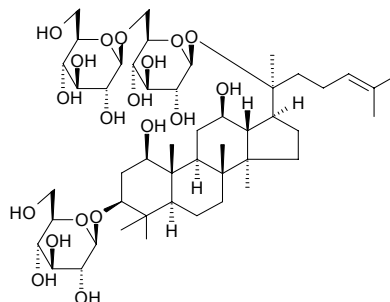
[495-19-2]  $C_7H_{11}NO_2$  (141.17). mp 27°C, bp 114°C/14mmHg. **Source:** BING LANG *Areca catechu* (dried ripe seed: content scope 0.03%~0.06%<sup>[5508]</sup>). **Ref:** 2, 5508.

**9094 Gycomoside I**

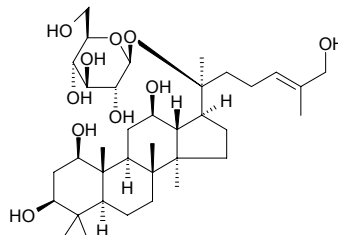
1 $\beta$ ,3 $\beta$ ,12 $\beta$ ,20(S),26-Pentahydroxy-dammer-24(25)-en-20(S)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside [150626-50-9]  $C_{42}H_{72}O_{15}$  (817.03). Colorless acicular Crystals, mp 196~197°C,  $[\alpha]_D^{22} = +18.56^\circ$  ( $c = 1.67$ , MeOH). **Source:** BIAN GUO JIAO GU LAN *Gynostemma compressum*. **Ref:** 266.

**9095 Gycomoside II**

1 $\beta$ ,3 $\beta$ ,12 $\beta$ ,20(S)-Tetrahydroxy-dammer-24(25)-en-3-O- $\beta$ -D-glucopyranosyl-20(S)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside [150626-51-0]  $C_{48}H_{82}O_{19}$  (963.18). White powder, mp 195~197°C,  $[\alpha]_D^{22} = +21.05^\circ$  ( $c = 0.57$ , MeOH). **Source:** BIAN GUO JIAO GU LAN *Gynostemma compressum*. **Ref:** 266, 1521.

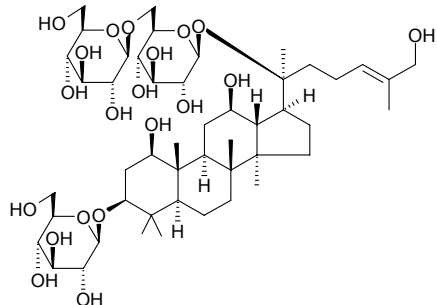
**9096 Gycomoside III**

1 $\beta$ ,3 $\beta$ ,12 $\beta$ ,20(S),26-Pentahydroxy-dammer-24(25)-en-20(S)-O- $\beta$ -D-glucopyranoside  $C_{36}H_{62}O_{10}$  (654.89). Yellowish powder, mp 178~180°C,  $[\alpha]_D^{22} = +23.73^\circ$  ( $c = 0.59$ , MeOH). **Source:** BIAN GUO JIAO GU LAN *Gynostemma compressum*. **Ref:** 266.

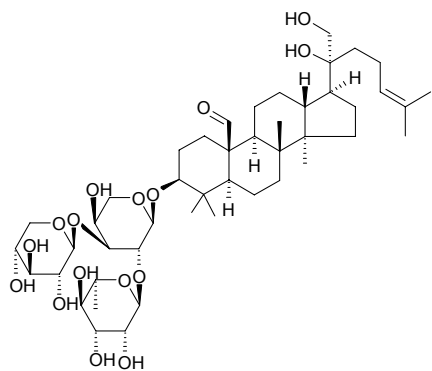


**9097 Gycomoside IV**

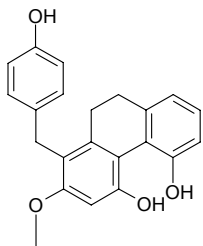
1 $\beta$ ,3 $\beta$ ,12 $\beta$ ,20(S),26-Pentahydroxy-dammer-24(25)-en-3-O- $\beta$ -D-glucopyranosyl-1-20(S)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside C<sub>48</sub>H<sub>82</sub>O<sub>20</sub> (979.18). White powder, mp 207~209°C,  $[\alpha]_D^{22} = +12.96^\circ$  ( $c = 1.08$ , MeOH). Source: BIAN GUO JIAO GU LAN *Gynostemma compressum*. Ref: 266.

**9098 Gylongiposide I**

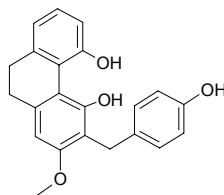
C<sub>46</sub>H<sub>76</sub>O<sub>16</sub> (885.11). White crystalline powder, mp 219.5~220.0°C,  $[\alpha]_D^{20} = -1.7^\circ$  ( $c = 1$ , methanol). Source: CHANG GENG JIAO GU LAN *Gynostemma longipes*. Ref: 390.

**9099 Gymconopin A**

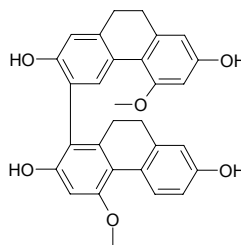
C<sub>22</sub>H<sub>20</sub>O<sub>4</sub> (348.40). White powder. Pharm: Antiallergic  $\beta$ -Hexosaminidase inhibitor (rat basophilic RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase, 100 $\mu$ mol/L, InRt = (21.3 $\pm$ 2.9) $\mu$ mol/L,  $p < 0.01$ ; 300 $\mu$ mol/L control Ketotifen fumarate, InRt = (72.5 $\pm$ 0.9) $\mu$ mol/L,  $p < 0.01$ ). Source: SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber). Ref: 5022.

**9100 Gymconopin B**

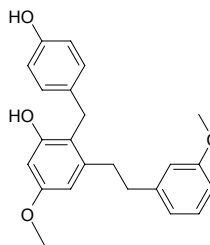
C<sub>22</sub>H<sub>20</sub>O<sub>4</sub> (348.40). White powder. Pharm: Antiallergic  $\beta$ -Hexosaminidase inhibitor (rat basophilic RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase, 100 $\mu$ mol/L, InRt = (96.9 $\pm$ 1.8) $\mu$ mol/L,  $p < 0.01$ ; 300 $\mu$ mol/L control Ketotifen fumarate, InRt = (72.5 $\pm$ 0.9) $\mu$ mol/L,  $p < 0.01$ ). Source: SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber). Ref: 5022.

**9101 Gymconopin C**

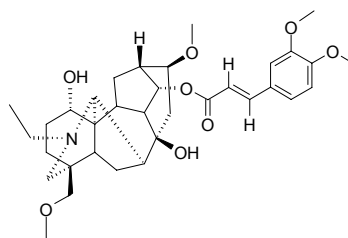
C<sub>30</sub>H<sub>26</sub>O<sub>6</sub> (482.54). White powder. Source: SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber). Ref: 5022.

**9102 Gymconopin D**

C<sub>23</sub>H<sub>24</sub>O<sub>4</sub> (364.45). White powder. Pharm: Antiallergic  $\beta$ -Hexosaminidase inhibitor (rat basophilic RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase, 100 $\mu$ mol/L, InRt = (86.9 $\pm$ 0.9) $\mu$ mol/L,  $p < 0.01$ ; 300 $\mu$ mol/L control Ketotifen fumarate, InRt = (72.5 $\pm$ 0.9) $\mu$ mol/L,  $p < 0.01$ )<sup>[5022]</sup>. Source: SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber). Ref: 5022.

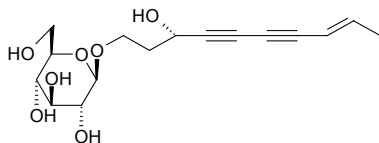
**9103 Gymnaconitine**

[103956-41-8] C<sub>34</sub>H<sub>47</sub>NO<sub>8</sub> (597.76). White acicular Crystals, mp 110~111°C,  $[\alpha]_D^{17} = +18.2^\circ$ . Source: LU RUI WU TOU *Aconitum gymmandrum*. Ref: 52.

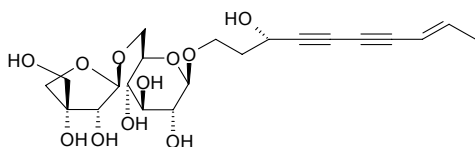


**9104 Gymnasterkoreaside A**

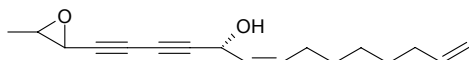
(3*R*)-8-Decene-4,6-diyne-1,3-diol 1-*O*- $\beta$ -*D*-glucopyraside C<sub>16</sub>H<sub>22</sub>O<sub>7</sub> (326.35). Bright yellow oil,  $[\alpha]_D^{20} = -28^\circ$  ( $c = 1$ , MeOH). Source: CHAO XIAN LUO WAN *Gymnaster koraiensis* (root). Ref: 4196.

**9105 Gymnasterkoreaside B**

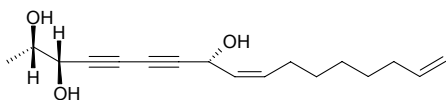
(3*R*)-8-Decene-4,6-diyne-1,3-diol 1-*O*- $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyraside C<sub>21</sub>H<sub>30</sub>O<sub>11</sub> (458.47). Bright yellow oil,  $[\alpha]_D^{20} = -78^\circ$  ( $c = 1$ , MeOH). Source: CHAO XIAN LUO WAN *Gymnaster koraiensis* (root). Ref: 4196.

**9106 Gymnasterkoreayne B**

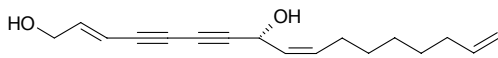
C<sub>17</sub>H<sub>22</sub>O<sub>2</sub> (258.36).  $[\alpha]_D^{20} = +163.0^\circ$  ( $c = 0.3$ , CHCl<sub>3</sub>). Pharm: NFAT transcription factor inhibitor (IC<sub>50</sub> = (1.44 $\pm$ 0.59) $\mu$ mol/L, control Cyclosporin A, IC<sub>50</sub> = (0.31 $\pm$ 0.01) $\mu$ mol/L). Source: CHAO XIAN LUO WAN *Gymnaster koraiensis* (leaf). Ref: 4511.

**9107 Gymnasterkoreayne E**

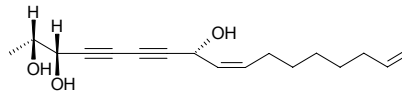
C<sub>17</sub>H<sub>24</sub>O<sub>3</sub> (276.38).  $[\alpha]_D^{20} = +87.9^\circ$  ( $c = 0.3$ , CHCl<sub>3</sub>). Pharm: NFAT transcription factor inhibitor (IC<sub>50</sub> = (7.24 $\pm$ 0.42) $\mu$ mol/L, positive control Cyclosporin A, IC<sub>50</sub> = (0.31 $\pm$ 0.01) $\mu$ mol/L)<sup>[4511]</sup>. Source: CHAO XIAN LUO WAN *Gymnaster koraiensis* (leaf). Ref: 4511.

**9108 Gymnasterkoreayne F**

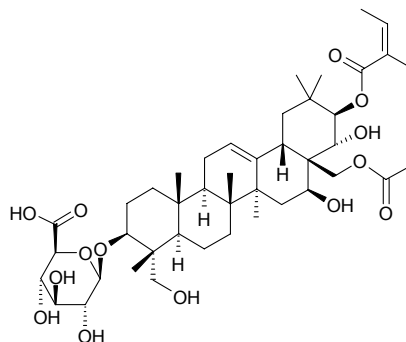
C<sub>17</sub>H<sub>22</sub>O<sub>2</sub> (258.36).  $[\alpha]_D^{20} = +134.0^\circ$  ( $c = 0.3$ , CHCl<sub>3</sub>). Pharm: NFAT transcription factor inhibitor (IC<sub>50</sub> = (10.6 $\pm$ 0.5) $\mu$ mol/L, control Cyclosporin A, IC<sub>50</sub> = (0.31 $\pm$ 0.01) $\mu$ mol/L)<sup>[4511]</sup>. Source: CHAO XIAN LUO WAN *Gymnaster koraiensis* (leaf). Ref: 4511.

**9109 Gymnasterkoreayne G**

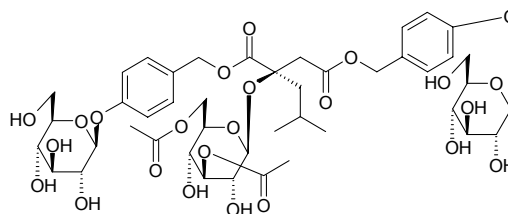
C<sub>17</sub>H<sub>24</sub>O<sub>3</sub> (276.38). Orange oil,  $[\alpha]_D^{20} = +40.0^\circ$  ( $c = 0.3$ , CHCl<sub>3</sub>). Pharm: NFAT transcription factor inhibitor (IC<sub>50</sub> = (43.9 $\pm$ 2.2) $\mu$ mol/L, positive control Cyclosporin A, IC<sub>50</sub> = (0.31 $\pm$ 0.01) $\mu$ mol/L). Source: CHAO XIAN LUO WAN *Gymnaster koraiensis* (leaf). Ref: 4511.

**9110 Gymnemic acid I**

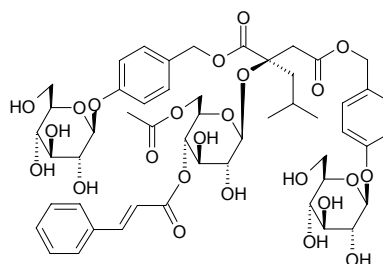
[122168-40-5] C<sub>43</sub>H<sub>66</sub>O<sub>14</sub> (807.00). Pharm: Flavorant. Source: CHI GENG TENG *Gymnema sylvestre*. Ref: 658.

**9111 Gymnoside VIII**

C<sub>44</sub>H<sub>60</sub>O<sub>24</sub> (972.95). White powder,  $[\alpha]_D^{24} = -37.3^\circ$  ( $c = 0.39$ , MeOH). Source: SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber: yield = 0.0003%). Ref: 2089.

**9112 Gymnoside IX**

C<sub>51</sub>H<sub>64</sub>O<sub>24</sub> (1061.06). White powder,  $[\alpha]_D^{24} = -26.5^\circ$  ( $c = 1.61$ , MeOH). Source: SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber: yield = 0.013%). Ref: 2089.

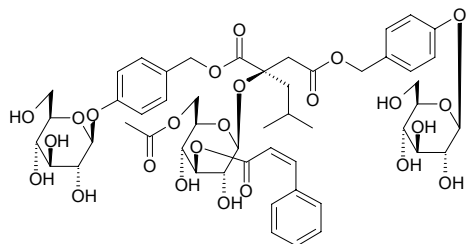




**9113 Gymnoside X**

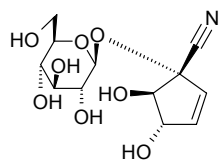
$C_{51}H_{64}O_{24}$  (1061.06). White powder,  $[\alpha]_D^{24} = -11.2^\circ$  ( $c = 1.00$ , MeOH).

**Source:** SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber: yield = 0.0005%). **Ref:** 2089.

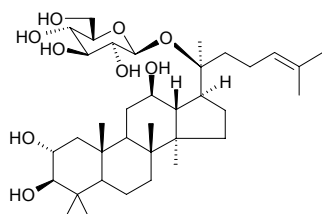
**9114 Gynocardin**

[14332-17-3]  $C_{12}H_{17}NO_8$  (303.27). **Pharm:** Toxin. **Source:** MA DAN GUO

*Gynocardia odorata*. **Ref:** 658.

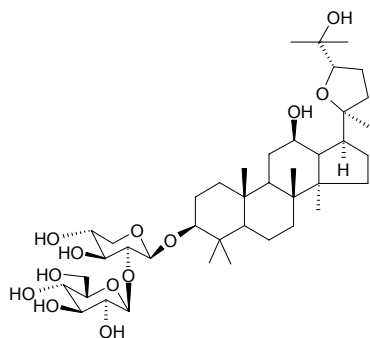
**9115 Gynosaponin TN<sub>1</sub>**

$C_{36}H_{62}O_9$  (638.89). **Source:** JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.036%dw). **Ref:** 4757.

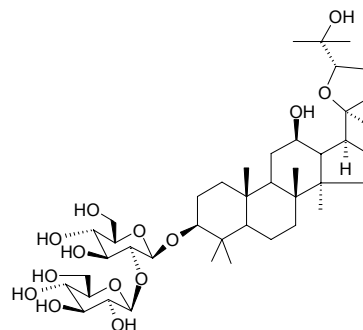
**9116 Gynoside A**

(20*S*,24*S*)-20,-24-Epoxy-12,25-dihydroxydammaran-3-yl *O*-β-D-glucopyranosyl-(1→2)-β-D-xylopyranoside  $C_{41}H_{70}O_{13}$  (771.01). Colorless plates, mp 203~205°C,  $[\alpha]_D^{20} = -0.47^\circ$  ( $c = 0.9$ , MeOH). **Source:** JIAO GU LAN

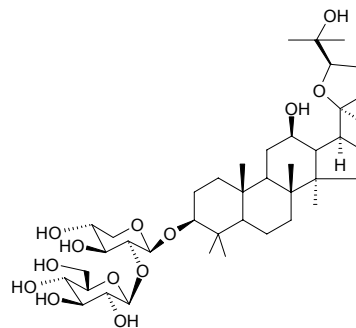
*Gynostemma pentaphyllum* (leaf: yield = 0.002%dw). **Ref:** 4757.

**9117 Gynoside B**

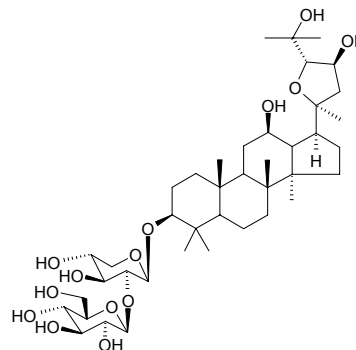
(20*S*,24*S*)-20,24-Epoxy-12,25-dihydroxydammaran-3-yl *O*-β-D-glucopyranosyl-(1→2)-β-D-glucopyranoside  $C_{42}H_{72}O_{14}$  (801.03). Amorphous powder, mp 194~196°C,  $[\alpha]_D^{20} = +0.10^\circ$  ( $c = 0.05$ , MeOH). **Source:** JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.00025%dw). **Ref:** 4757.

**9118 Gynoside C**

(20*S*,24*R*)-20,24-Epoxy-12,25-dihydroxydammaran-3-yl *O*-β-D-glucopyranosyl-(1→2)-β-D-xylopyranoside  $C_{41}H_{70}O_{13}$  (771.01). Amorphous powder, mp 194~196°C,  $[\alpha]_D^{20} = -8.0^\circ$  ( $c = 0.1$ , MeOH). **Source:** JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.00012%dw). **Ref:** 4757.

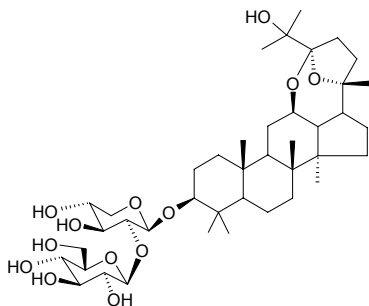
**9119 Gynoside D**

(20*S*,24*S*)-20,24-Epoxy-12,23β,25-trihydroxydammaran-3β-yl *O*-β-D-glucopyranosyl-(1→2)-β-D-xylopyranoside  $C_{41}H_{70}O_{14}$  (787.01). Amorphous powder, mp 195~197°C,  $[\alpha]_D^{20} = +0.61^\circ$  ( $c = 0.1$ , MeOH). **Source:** JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.00077%dw). **Ref:** 4757.

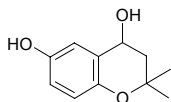


**9120 Gynoside E**

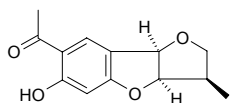
(12*R*,20*S*,24*S*)-20,24;20,12-Diepoxy-25-hydroxydammaran-3 $\beta$ -yl  
*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-xylopyranoside C<sub>41</sub>H<sub>68</sub>O<sub>13</sub> (768.99).  
 Amorphous powder, mp 207~209°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +2.0° (*c* = 0.15, MeOH).  
 Source: JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield =  
 0.0001%dw). Ref: 4757.

**9121 Gynunol**

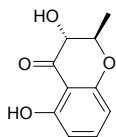
C<sub>11</sub>H<sub>14</sub>O<sub>3</sub> (194.23). Colorless oil. Source: TUO YUAN SAN QI CAO *Gynura elliptica*. Ref: 763.

**9122 (+)-Gynunone**

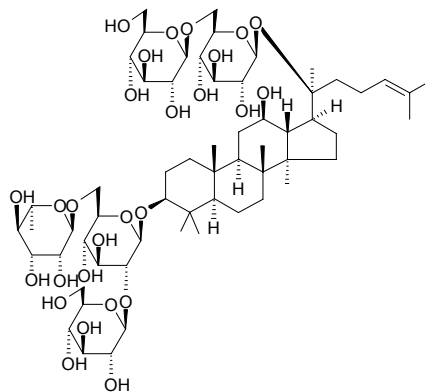
C<sub>13</sub>H<sub>14</sub>O<sub>4</sub> (234.25). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = 117.8° (*c* = 0.15, CHCl<sub>3</sub>). Source:  
 TUO YUAN SAN QI CAO *Gynura elliptica*. Ref: 763.

**9123 (-)-Gynuraone**

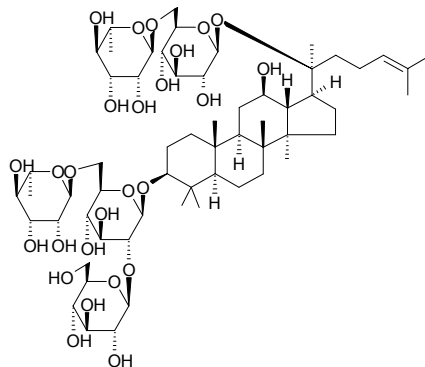
C<sub>10</sub>H<sub>10</sub>O<sub>4</sub> (194.19). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -64.5° (*c* = 0.93, CHCl<sub>3</sub>). Pharm:  
 Platelet aggregation inhibitor (washed rabbit platelets, 100 $\mu$ g/mL, 100 $\mu$ mol/L  
 AA-induced, AggRt = 7.2%, control 50 $\mu$ mol/L Aspirin, AggRt = 100%;  
 10 $\mu$ g/mL collagen-induced, AggRt = 7.5%, 100 $\mu$ mol/L Aspirin, AggRt = 4.9%;  
 0.1U/mL thrombin-induced, AggRt = 4.0%, 100 $\mu$ mol/L Aspirin, AggRt =  
 1.7%; 2ng/mL PAF-induced, AggRt = 2.9%, 100 $\mu$ mol/L Aspirin, AggRt =  
 2.1%). Source: SAN QI CAO *Gynura segetum* [Syn. *Gynura japonica*]  
 (rhizome). Ref: 5427.

**9124 Gypenoside I**

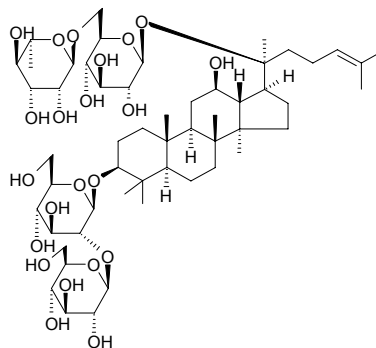
C<sub>60</sub>H<sub>102</sub>O<sub>27</sub> (1255.47). Source: JIAO GU LAN *Gynostemma pentaphyllum*.  
 Ref: 2.

**9125 Gypenoside II**

C<sub>60</sub>H<sub>102</sub>O<sub>26</sub> (1239.47). Source: JIAO GU LAN *Gynostemma pentaphyllum*.  
 Ref: 2.

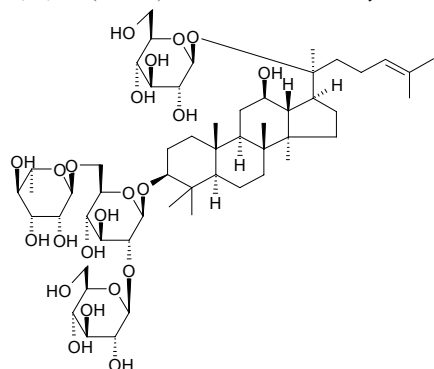
**9126 Gypenoside V**

Gynosaponin E [80321-60-4] C<sub>54</sub>H<sub>92</sub>O<sub>22</sub> (1093.32). Source: JIAO GU LAN  
*Gynostemma pentaphyllum*. Ref: 2, 1521.

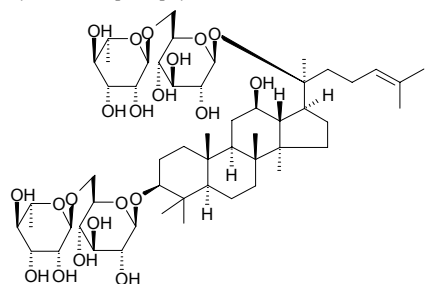


**9127 Gypenoside VI**

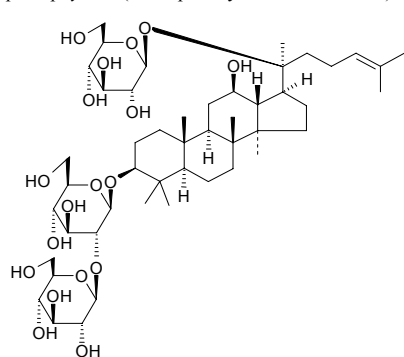
$C_{54}H_{92}O_{22}$  (1093.32). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9128 Gypenoside VII**

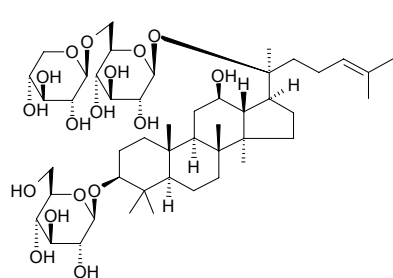
Gynosaponin G [80321-62-6]  $C_{54}H_{92}O_{21}$  (1077.32). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2, 1521.

**9129 Gypenoside VIII**

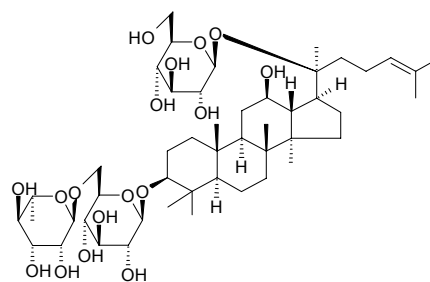
[52705-93-8]  $C_{48}H_{82}O_{18}$  (947.18). Source: JIAO GU LAN *Gynostemma pentaphyllum* (aerial parts: yield = 0.0041%dw)<sup>[4751]</sup>. Ref: 2, 4751.

**9130 Gypenoside IX**

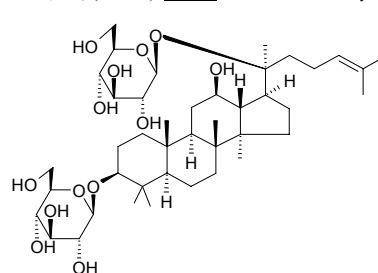
[80321-63-7]  $C_{47}H_{80}O_{17}$  (917.15). Source: JIAO GU LAN *Gynostemma pentaphyllum*, SAN QI HUA LEI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (flower bud: yield = 0.11%dw)<sup>[4702]</sup>. Ref: 2, 1521, 4702.

**9131 Gypenoside XI**

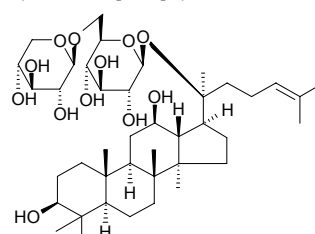
Gynosaponin K [80321-64-8]  $C_{48}H_{82}O_{17}$  (931.18). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2, 1521.

**9132 Gypenoside XII**

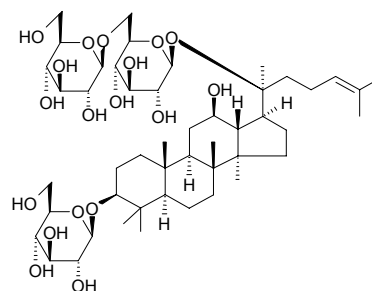
$C_{42}H_{72}O_{13}$  (785.03). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

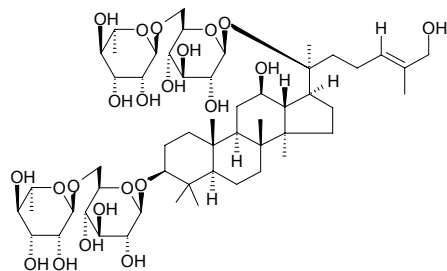
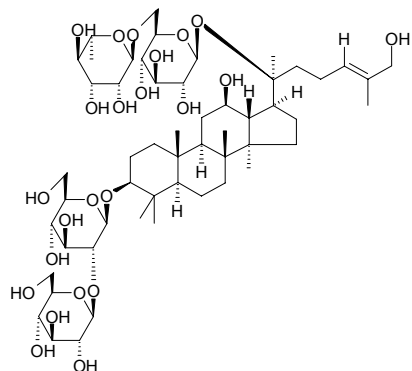
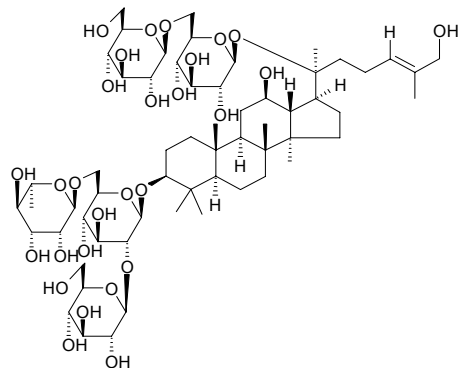
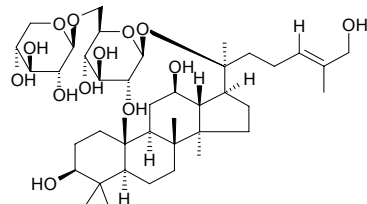
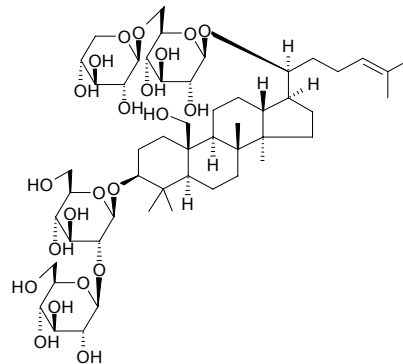
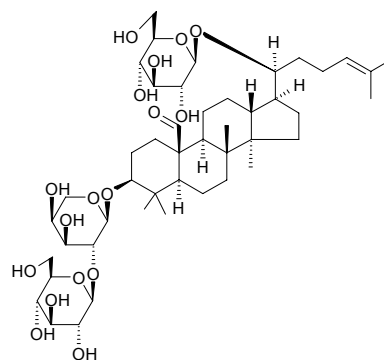
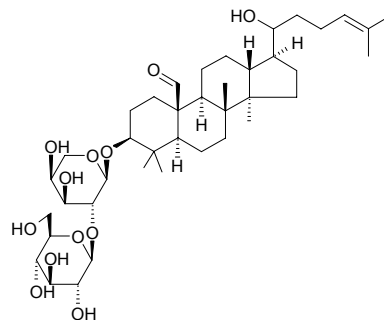
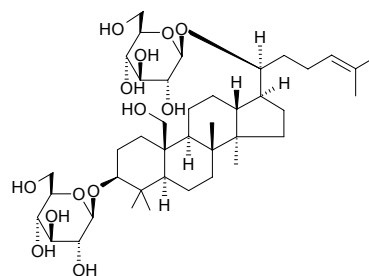
**9133 Gypenoside XIII**

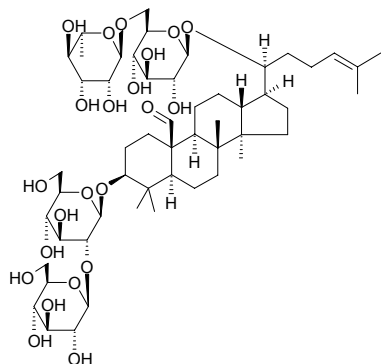
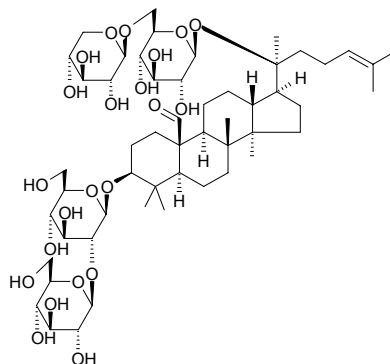
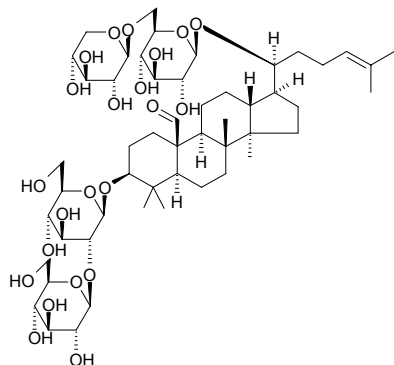
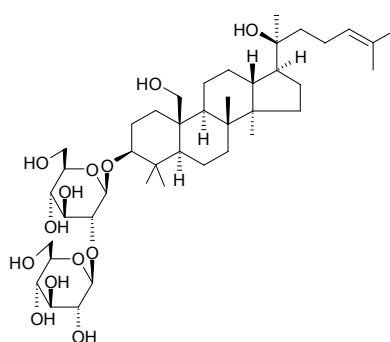
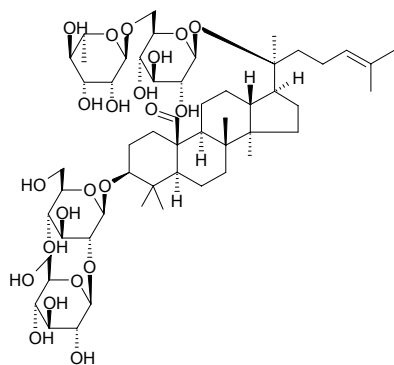
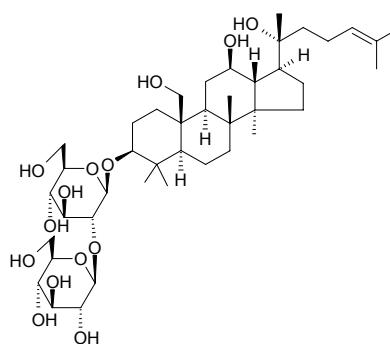
Gynosaponin M [80325-22-0]  $C_{41}H_{70}O_{12}$  (755.01). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2, 1521.

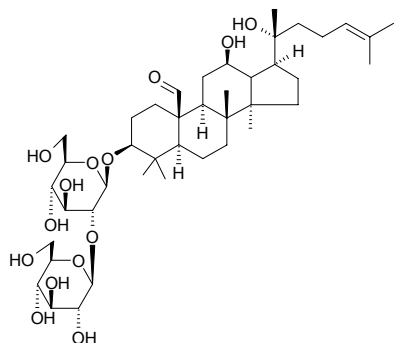
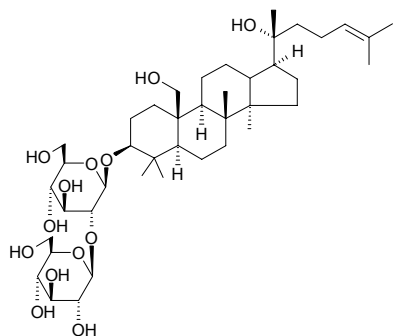
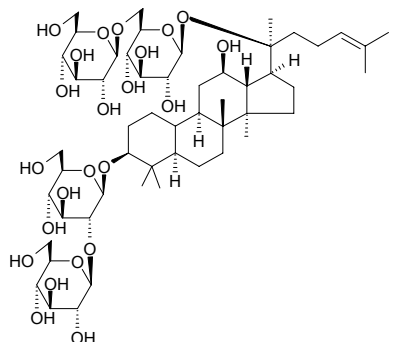
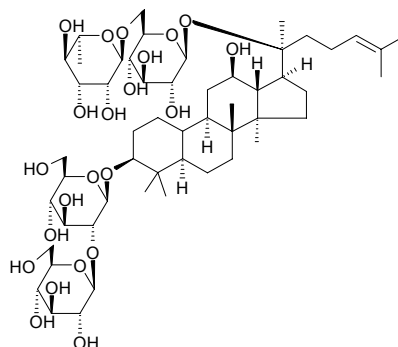
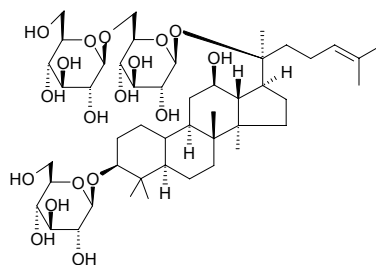
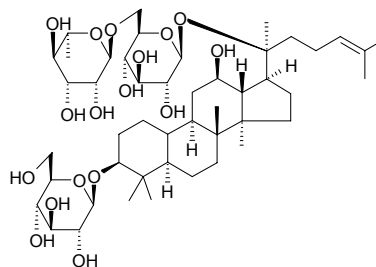
**9134 Gypenoside XVII**

Gynosaponin S  $C_{48}H_{82}O_{18}$  (947.18). Pharm: Hepatoprotective (inhibits activation of macrophages, inhibits increase in sALT and sAST levels, *in vivo*, *D*-GalN/LPS-induced liver injury in mouse, 100mg/kg ip for sALT, InRt = 95%; 100mg/kg ip for sAST, InRt = 91%; control Hydrocortisone, 20mg/kg ip for sALT, InRt = 99%; 20mg/kg ip for sAST, InRt = 97%)<sup>[4702]</sup>. Source: JIAO GU LAN *Gynostemma pentaphyllum*, SAN QI HUA LEI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*] (flower bud: yield = 0.18%dw)<sup>[4702]</sup>. Ref: 2, 1521, 4702.



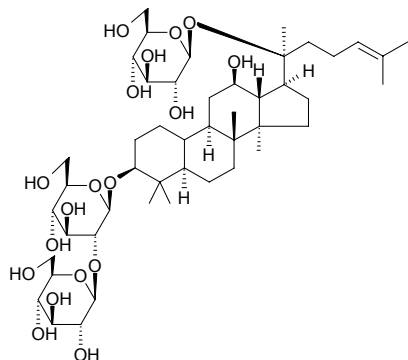
**9135 Gypenoside XVIII**C<sub>54</sub>H<sub>92</sub>O<sub>22</sub> (1093.32). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9136 Gypenoside XIX**[80321-66-0] C<sub>54</sub>H<sub>92</sub>O<sub>23</sub> (1109.32). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9137 Gypenoside XX**C<sub>60</sub>H<sub>102</sub>O<sub>28</sub> (1271.47). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2, 1521.**9138 Gypenoside XXI**C<sub>41</sub>H<sub>70</sub>O<sub>13</sub> (771.01). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2, 1521.**9139 Gypenoside XXII**C<sub>52</sub>H<sub>88</sub>O<sub>22</sub> (1065.27). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9140 Gypenoside XXVI**C<sub>46</sub>H<sub>76</sub>O<sub>17</sub> (901.11). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9141 Gypenoside XXIX**C<sub>40</sub>H<sub>66</sub>O<sub>12</sub> (738.96). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9142 Gypenoside XXX**C<sub>41</sub>H<sub>70</sub>O<sub>13</sub> (771.01). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.

**9143 Gypenoside XXXIV**C<sub>53</sub>H<sub>88</sub>O<sub>22</sub> (1077.28). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9146 Gypenoside XXXVII**C<sub>53</sub>H<sub>88</sub>O<sub>22</sub> (1077.28). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9144 Gypenoside XXXV**C<sub>52</sub>H<sub>86</sub>O<sub>22</sub> (1063.25). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9147 Gypenoside XXXVIII**C<sub>42</sub>H<sub>72</sub>O<sub>13</sub> (785.03). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9145 Gypenoside XXXVI**C<sub>54</sub>H<sub>90</sub>O<sub>22</sub> (1091.31). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9148 Gypenoside XXXIX**C<sub>42</sub>H<sub>72</sub>O<sub>14</sub> (801.03). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.

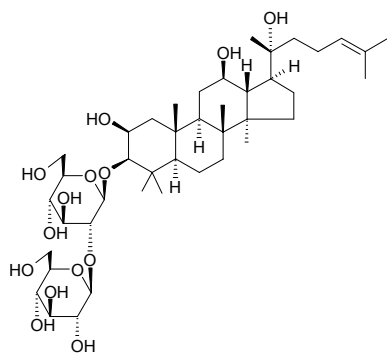
**9149 Gypenoside XL**C<sub>42</sub>H<sub>70</sub>O<sub>14</sub> (799.02). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9150 Gypenoside XLI**C<sub>42</sub>H<sub>72</sub>O<sub>13</sub> (758.03). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.**9151 Gypenoside XLII**C<sub>53</sub>H<sub>90</sub>O<sub>23</sub> (1095.29). Source: HUI GUO JIAO GU LAN *Gynostemma yixingense*, JIAO GU LAN *Gynostemma pentaphyllum* (leaf)<sup>[4757]</sup>. Ref: 2, 329, 4757.**9152 Gypenoside XLIII**C<sub>53</sub>H<sub>90</sub>O<sub>22</sub> (1079.30). Source: JIAO GU LAN *Gynostemma**pentaphyllum*. Ref: 2.**9153 Gypenoside XLIV**C<sub>47</sub>H<sub>80</sub>O<sub>18</sub> (933.15). Source: HUI GUO JIAO GU LAN *Gynostemma yixingense*, JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2, 329.**9154 Gypenoside XLV**C<sub>47</sub>H<sub>80</sub>O<sub>17</sub> (917.15). Source: JIAO GU LAN *Gynostemma pentaphyllum*.Ref: 2.

**9155 Gypenoside XLVI**

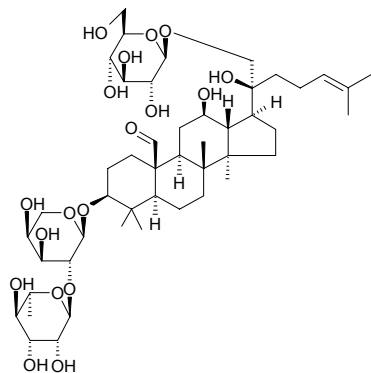
$C_{47}H_{80}O_{18}$  (933.15). Source: JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.051%dw)<sup>[4757]</sup>. Ref: 2, 4757.

**9156 Gypenoside LI**

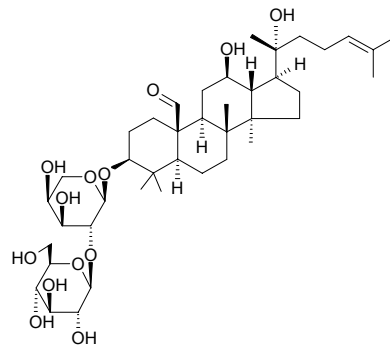
$C_{42}H_{72}O_{14}$  (801.03). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9157 Gypenoside LII**

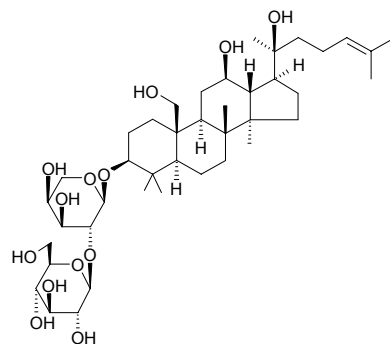
$C_{47}H_{78}O_{18}$  (931.13). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9158 Gypenoside LIII**

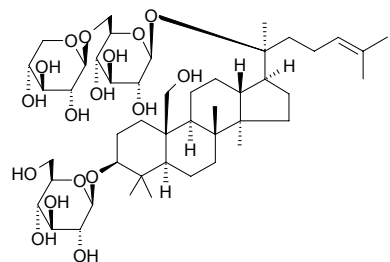
$C_{41}H_{68}O_{13}$  (768.99). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9159 Gypenoside LIV**

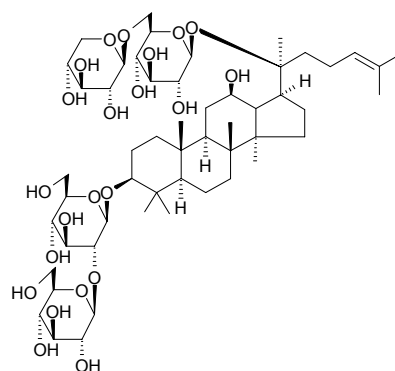
$C_{41}H_{70}O_{13}$  (771.01). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9160 Gypenoside LV**

$C_{47}H_{80}O_{17}$  (917.15). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

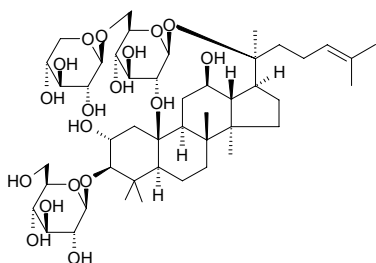
**9161 Gypenoside LVI**

$C_{53}H_{90}O_{22}$  (1079.30). Source: JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.00063%dw)<sup>[4757]</sup>. Ref: 2, 1521, 4757.

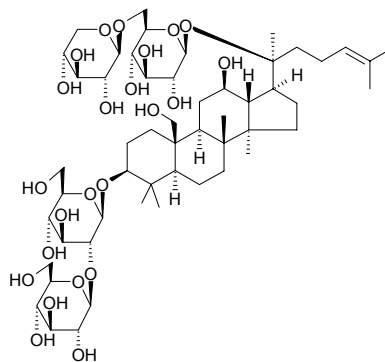


**9162 Gypenoside LVII**

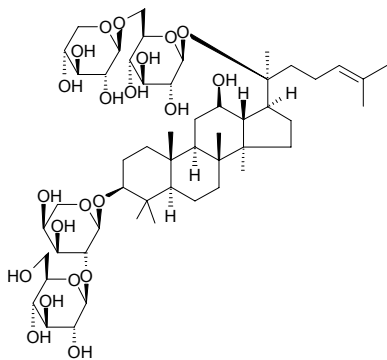
$C_{47}H_{80}O_{18}$  (933.15). Source: JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.051%dw)<sup>[4757]</sup>. Ref: 2, 1521, 4757.

**9166 Gypenoside LXII**

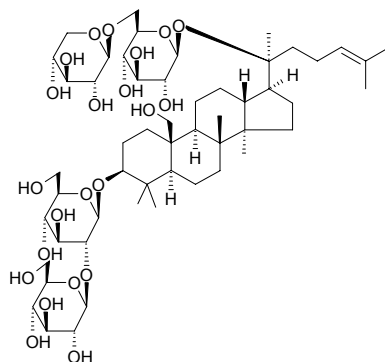
$C_{53}H_{90}O_{23}$  (1095.29). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9163 Gypenoside LVIII**

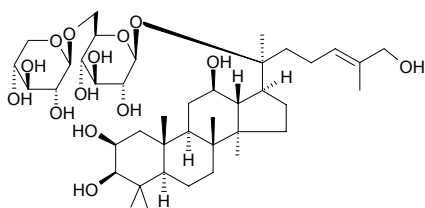
$C_{52}H_{88}O_{21}$  (1049.27). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9167 Gypenoside LXIII**

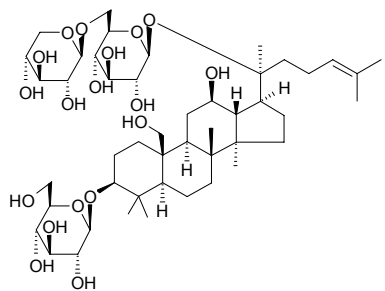
$C_{53}H_{90}O_{22}$  (1079.30). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9164 Gypenoside LIX**

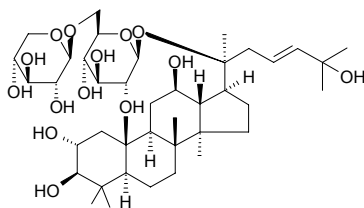
[105214-50-4]  $C_{41}H_{70}O_{14}$  (787.01). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2, 1521.

**9168 Gypenoside LXIV**

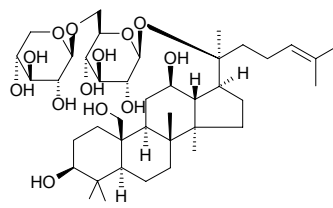
$C_{47}H_{80}O_{18}$  (933.15). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9165 Gypenoside LX**

$C_{41}H_{70}O_{14}$  (787.01). Source: JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.00023%dw)<sup>[4757]</sup>. Ref: 2, 4757.

**9169 Gypenoside LXV**

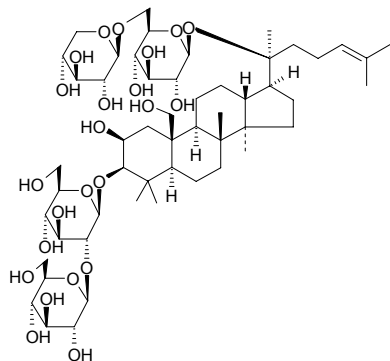
$C_{41}H_{70}O_{13}$  (771.01). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.





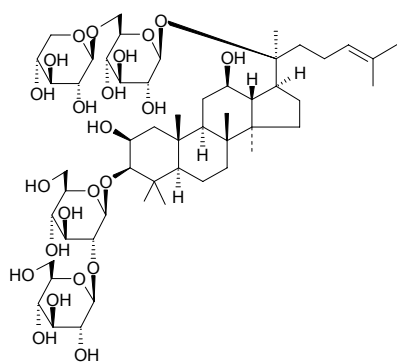
**9170 Gypenoside LXVII**

$C_{53}H_{90}O_{23}$  (1095.29). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9171 Gypenoside LXVIII**

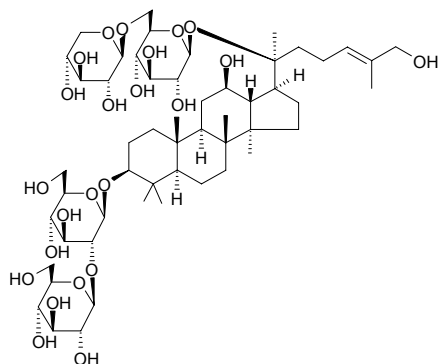
$C_{53}H_{90}O_{23}$  (1095.29). Source: JIAO GU LAN *Gynostemma pentaphyllum*.

Ref: 2.

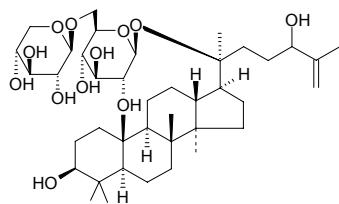
**9172 Gypenoside LXX**

$C_{53}H_{90}O_{23}$  (1095.29). Source: JIAO GU LAN *Gynostemma pentaphyllum*.

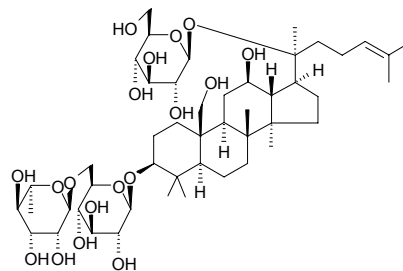
Ref: 2.

**9173 Gypenoside LXXI**

$C_{41}H_{70}O_{12}$  (755.01). Source: JIAO GU LAN *Gynostemma pentaphyllum* (aerial parts: yield = 0.0012%dw)<sup>[4751]</sup>. Ref: 2, 4751.

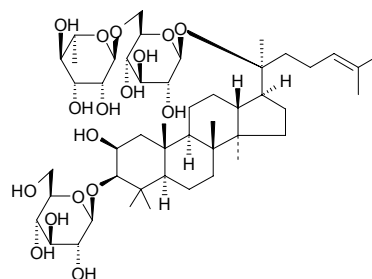
**9174 Gypenoside LXXII**

$C_{48}H_{82}O_{18}$  (947.18). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9175 Gypenoside LXXIII**

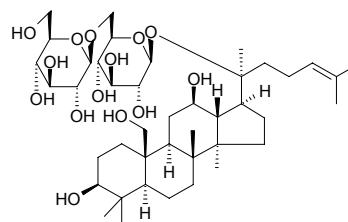
$C_{48}H_{82}O_{17}$  (931.18). Source: JIAO GU LAN *Gynostemma pentaphyllum*.

Ref: 2.

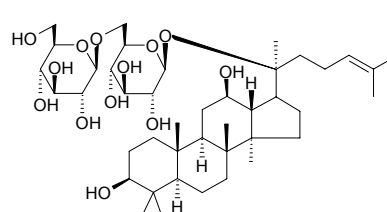
**9176 Gypenoside LXXIV**

$C_{42}H_{72}O_{14}$  (801.03). Source: JIAO GU LAN *Gynostemma pentaphyllum*.

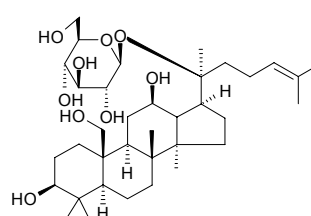
Ref: 2.

**9177 Gypenoside LXXV**

$C_{42}H_{72}O_{13}$  (785.03). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

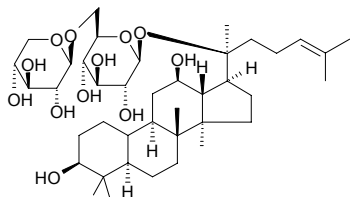
**9178 Gypenoside LXXVI**

$C_{36}H_{62}O_9$  (638.89). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

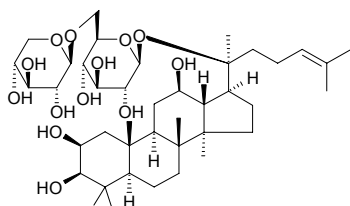


**9179 Gypenoside LXXVII**

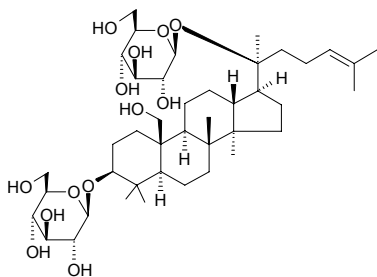
$C_{40}H_{68}O_{12}$  (740.98). Source: JIAO GU LAN *Gynostemma pentaphyllum* (leaf: yield = 0.061%dw)<sup>[4757]</sup>. Ref: 2, 4757.

**9180 Gypenoside LXXVIII**

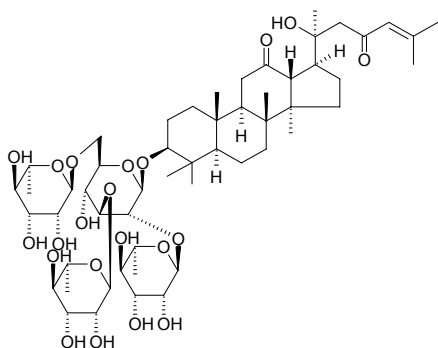
$C_{41}H_{70}O_{13}$  (771.01). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9181 Gypenoside LXXIX**

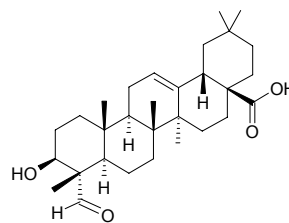
$C_{42}H_{72}O_{13}$  (785.03). Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 2.

**9182 Gypentonoside A**

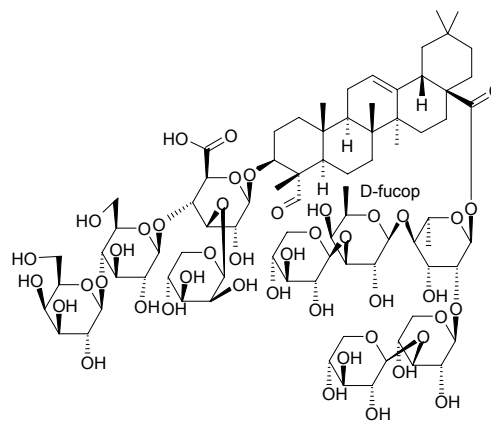
[20S]-3 $\beta$ ,20-Dihydroxy-24-dammaren-12,23-dione-3-O-[ $\alpha$ -L-rhamnopyranosyl-1-(1 $\rightarrow$ 2)-[ $\alpha$ -L-rhamnopyranosyl-1-(1 $\rightarrow$ 3)]- $\alpha$ -L-rhamnopyranosyl-1-(1 $\rightarrow$ 6)]- $\beta$ -D-glucopyranoside  $C_{54}H_{88}O_{21}$  (1073.29). White powder, mp 272~274°C. Source: JIAO GU LAN *Gynostemma pentaphyllum*. Ref: 364.

**9183 Gypsogenin**

[639-14-5]  $C_{30}H_{46}O_4$  (470.70). mp 274°C. Pharm: Toxin (mammal). Source: YIN CHAI HU *Stellaria dichotoma* var. *lanceolata*, SHAN YIN CHAI HU *Gypsophila pacifica*, MAI XIAN WENG *Agrostemma githago*. Ref: 6, 658.

**9184 Gypsoside**

[15588-68-8]  $C_{80}H_{126}O_{44}$  (1791.87). mp 215~220°C (dec),  $[\alpha]_D^{20} = 22.1^\circ \pm 2^\circ$  (c = 3.07, water). Pharm: Antispasmodic (delays convulsive spasm, mus, caused by corazol, camphor or coffeine); hypnotic (mus hypnotic synergism with barbital sodium and chloral hydrate); antihypercholesterolemic (atherosis rbt, reduces the level of cholesterol in serum, cholesterol/cephalin coefficient, and lipid content in aorta); anticonvulsant (caused by strychnine). Source: SHAN YIN CHAI HU *Gypsophila pacifica*. Ref: 661.

**9185 Gyrophoric acid**

[548-89-0]  $C_{24}H_{20}O_{10}$  (468.42). mp 220°C (dec). Source: SHI HUA *Parmelia saxatilis*. Ref: 6.

