Dictionary of Natural Products

VOLUME TWO

D–F

Dictionary of Natural Products

VOLUME TWO

D–F

CHAPMAN & HALL
Scientific Data Division
London · Glasgow · New York · Tokyo · Melbourne · Madras

Published by Chapman & Hall, 2–6 Boundary Row, London SE1 8HN

Chapman & Hall, 2–6 Boundary Row, London SE1 8HN, UK

Blackie Academic & Professional, Wester Cleddens Road, Bishopbriggs, Glasgow G64 2NZ, UK

Chapman & Hall Inc., One Penn Plaza, 41st Floor, New York NY10119, USA

Chapman & Hall Japan, Thomson Publishing Japan, Hirakawacho Nemoto Building, 6F, 1-7-11 Hirakawa-cho, Chiyoda-ku, Tokyo 102, Japan

Chapman & Hall Australia, Thomas Nelson Australia, 102 Dodds Street, South Melbourne, Victoria 3205, Australia

Chapman & Hall India, R. Seshadri, 32 Second Main Road, CIT East, Madras 600 035, India

First edition 1994

Typeset and printed in Great Britain at the University Press, Cambridge

ISBN 0 412 46620 1 (Seven-volume set)

A catalogue record for this book is available from the British Library

Library of Congress Cataloguing-in-Publication Data available

∞ Printed on acid-free text paper, manufactured in accordance with ANSI/NISO Z39.48 1992 (Permanence of Paper)

Dictionary of Natural Products

VOLUME TWO

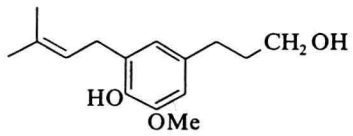
D–F

D

Dacriniol D-00001

3-[4-Hydroxy-3-methoxy-5-(3-methyl-2-butenyl)phenyl]-1-propanol. 4-(3-Hydroxypropyl)-2-isobutenyl-6-methoxyphenol

[18523-77-8]



$C_{15}H_{22}O_3$ M 250.337

Isol. from heartwood of Huon pine (*Dacrydium franklini*). Needles (cyclohexane). Mp 52-53°.

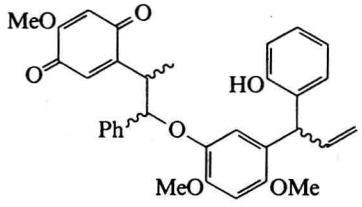
Aldehyde: [18523-78-9]. ***Dacrinial***

$C_{15}H_{20}O_3$ M 248.321

Present in *D. franklini*.

Baggaley, K.H. *et al*, *Acta Chem. Scand.*, 1967, **21**, 2247 (*isol, synth*)

Dacroidain D-00002



$C_{33}H_{32}O_7$ M 540.612

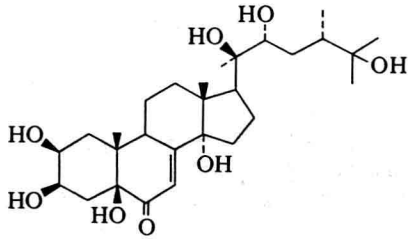
Dimer derived from Latifolin and an isoneoflavonoid unit. Isol. from *Dalbergia cochinchinensis* and *D. latifolia*. Cryst. (hexane) (as acetate). Mp 118-120° (acetate). $[\alpha]_D^{24}$ +128° (c, 4.0 in $CHCl_3$) (acetate).

Donnelly, D.M.X. *et al*, *J. Chem. Soc., Chem. Commun.*, 1981, 1254.

Dacrysterone D-00003

2,3,5,14,20,22,25-Heptahydroxyergost-7-en-6-one. 5-Hydroxymakisterone A

[50299-45-1]



$C_{28}H_{46}O_8$ M 510.667

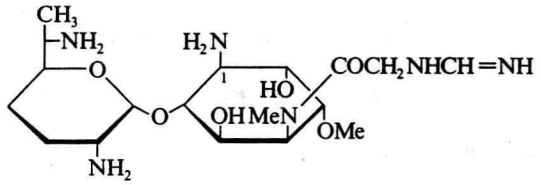
Isol. from *Dacrydium intermedium*. Insect moulting hormone. Cryst. Mp 283-285°.

Russell, G.B. *et al*, *Aust. J. Chem.*, 1973, **26**, 1805 (*isol*)
Blunt, J.W. *et al*, *Aust. J. Chem.*, 1979, **32**, 779 (*cmr, abs config*)

Dactimicin D-00004

Antibiotic SF 2052. SF 2052

[73196-97-1]



$C_{18}H_{36}N_6O_6$ M 432.519

Aminoglycoside antibiotic. From *Dactylosporangium matsuzakiense* and *D. vinaceum*. Active against gram-positive and -negative bacteria.

B,HCl: Mp 209-210° (dec. with foaming). $[\alpha]_D^{25}$ +87° (c, 1 in H_2O).

1-Epimer: [103531-05-1]. ***1-Epidactimicin***

$C_{18}H_{36}N_6O_6$ M 432.519

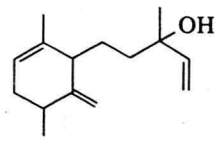
From *Streptomyces tenjimariensis*. Similar biol. props. as Dactimicin.

1-Epimer; B,2H2SO4: Powder. Mp >205° dec. $[\alpha]_D^{21}$ +92° (c, 0.15 in H_2O).

Inouye, S. *et al*, *J. Antibiot.*, 1979, **32**, 1354 (*isol*)
Shomura, T. *et al*, *J. Antibiot.*, 1980, **33**, 924 (*isol*)
Ohba, K. *et al*, *J. Antibiot.*, 1981, **34**, 1090 (*struct*)
Atsumi, K. *et al*, *J. Antibiot.*, 1982, **35**, 90 (*synth*)
Japan. Pat., 82 43 694, (1982); *CA*, **97**, 22081 (*manuf*)
Matsukashi, Y. *et al*, *Antimicrob. Agents Chemother.*, 1985, **27**, 589 (*props*)
Morioka, M. *et al*, *J. Antibiot.*, 1989, **42**, 831 (*epimer*)

Dactylenol D-00005

[58542-82-8]



$C_{15}H_{24}O$ M 220.354

Constit. of *Aplysia dactylomela*. Oil. $[\alpha]_D$ +203.8° (neat).

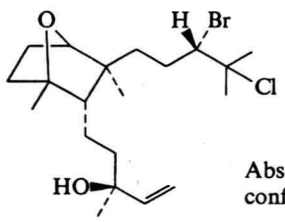
Ac:

$C_{17}H_{26}O_2$ M 262.391

Constit. of *A. dactylomela*. Oil. $[\alpha]_D$ +168° (c, 2.5 in $CHCl_3$).

Schmitz, F.J. *et al*, *J. Org. Chem.*, 1978, **43**, 4220.

Dactylomelol D-00006



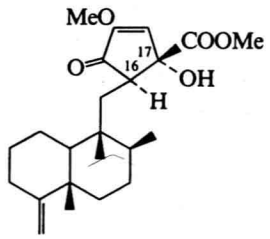
Absolute configuration

$C_{20}H_{34}BrClO_2$ M 421.844
Metab. of *Aplysia dactylomela*. Cryst. (CH_2Cl_2/hexane). Mp 85-86°. $[\alpha]_D^{20}$ −31.3° (c, 0.7 in $CHCl_3$).

Estrada, D.M. *et al*, *Tetrahedron Lett.*, 1989, **30**, 6219 (*cryst struct*)

Dactylospongenone A D-00007

[123062-42-0]



$C_{23}H_{34}O_5$ M 390.519
Metab. of *Dactylospongia* sp. Cryst. $[\alpha]_D$ −167.7° (c, 0.062 in MeOH).

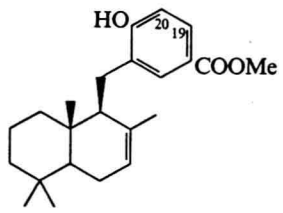
16-Epimer: [123123-36-4]. ***Dactylospongenone D***
$C_{23}H_{34}O_5$ M 390.519
Metab. of *D.* sp. $[\alpha]_D$ −121.7° (c, 0.14 in MeOH).

17-Epimer: [123123-35-3]. ***Dactylospongenone C***
$C_{23}H_{34}O_5$ M 390.519
Metab. of *D.* sp. $[\alpha]_D$ +25.5° (c, 0.20 in MeOH).

16,17-Diepimer: [123123-34-2]. ***Dactylospongenone B***
$C_{23}H_{34}O_5$ M 390.519
Metab. of *D.* sp. $[\alpha]_D$ +96.4° (c, 0.22 in MeOH).

Kushlan, D.M. *et al*, *Tetrahedron*, 1989, **45**, 3307 (*cryst struct*)

Dactylosponol D-00008



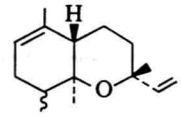
$C_{23}H_{32}O_3$ M 356.504
Constit. of *Dactylospongia elegans*. Cryst. Mp 145-147°. $[\alpha]_D$ −14° (c, 0.05 in CH_2Cl_2).

19,20-Dihydroxy: ***Dactylospontriol***
$C_{23}H_{32}O_5$ M 388.503
Isol. from *D. elegans*. Cryst. Mp 167-169°. $[\alpha]_D$ −18° (c,0.1 in CH_2Cl_2).

Rodríguez, J. *et al*, *Tetrahedron*, 1992, **48**, 6667 (*isol, pmr, cmr*)

Dactyloxene A D-00009

[54990-54-4]

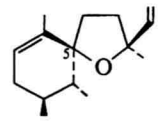


$C_{15}H_{24}O$ M 220.354
Constit. of *Aplysia dactylomela*. Oil. $[\alpha]_D$ −5.9° (c, 1.4 in $CHCl_3$).

Schmitz, F.J. *et al*, *J. Org. Chem.*, 1978, **43**, 4220.

Dactyloxene B D-00010

[54928-03-9]



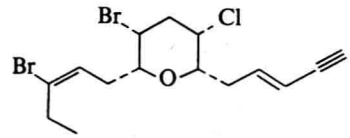
$C_{15}H_{24}O$ M 220.354
Constit. of *Aplysia dactylomela*. Oil. $[\alpha]_D$ +106° (c, 0.7 in $CHCl_3$).

5-Epimer: ***Dactyloxene C***
$C_{15}H_{24}O$ M 220.354
Constit. of *A. dactylomela*. Oil. $[\alpha]_D$ +45.8° (c, 0.9 in $CHCl_3$).

Schmitz, F.J. *et al*, *J. Org. Chem.*, 1978, **43**, 4220 (*isol, struct*)
Maurer, B. *et al*, *Helv. Chim. Acta*, 1980, **63**, 2503 (*synth, abs config*)

Dactylyne D-00011

[55306-12-2]

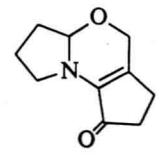


Absolute configuration

$C_{15}H_{19}Br_2ClO$ M 410.575
Constit. of *Aplysia dactylomela*. Cryst. Mp 62.2-63.3°. $[\alpha]_D^{25}$ −36° (c, 15.2 in $CHCl_3$).

McDonald, F.J. *et al*, *J. Org. Chem.*, 1975, **40**, 665.
Gao, L.-X. *et al*, *Tetrahedron Lett.*, 1992, **33**, 4349 (*synth*)

Daechualkaloid A D-00012

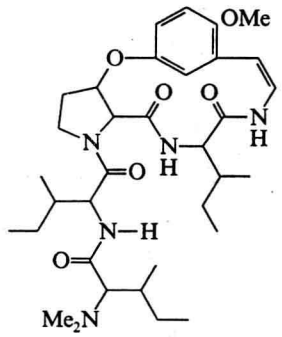


$C_{10}H_{13}NO_2$ M 179.218
Alkaloid from the fruit of *Zizyphus jujuba* var. *inermis* (Rhamnaceae). Mp 52°. $[\alpha]_D^{22}$ +0.3° (c, 0.82 in $CHCl_3$).

Han, B.H. *et al*, *Tetrahedron Lett.*, 1987, **28**, 3957 (*uv, ir, pmr, cmr, struct*)

Daechuine S3 D-00013

[123089-20-3]



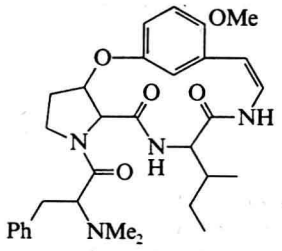
$C_{34}H_{53}N_5O_6$ M 627.823

Alkaloid from the stem bark of the Daechu tree (*Zizyphus jujuba* var. *inermis*) (Rhamnaceae). Mp 192-194°. $[\alpha]_D$ −440°.

Han, B.H. *et al*, *Pure Appl. Chem.*, 1989, **61**, 443.

Daechuine S6 D-00014

[123089-21-4]



$C_{31}H_{40}N_4O_5$ M 548.681

Alkaloid from the stem bark of the Daechu tree (*Zizyphus jujuba* var. *inermis*) (Rhamnaceae). Mp 192°. $[\alpha]_D$ −393.5°.

O-*De-Me:* [115610-63-4]. ***Daechuine S26.*** *Daechucyclopeptide I*

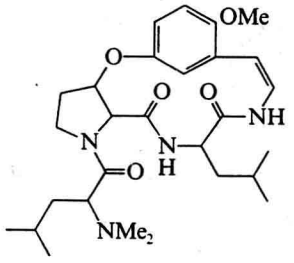
$C_{30}H_{38}N_4O_5$ M 534.654

Alkaloid from the stem bark of *Z. jujuba* var. *inermis* (Rhamnaceae). Mp 114°. Daechuine S26 and Daechucyclopeptide I are given the same (planar) struct. Mp refers to Daechucyclopeptide I.

Han, B.H., *Arch. Pharmacal. Res.*, 1987, **10**, 208 (*isol, props*)
Han, B.H. *et al*, *Pure Appl. Chem.*, 1989, **61**, 443.

Daechuine S7 D-00015

[123089-22-5]



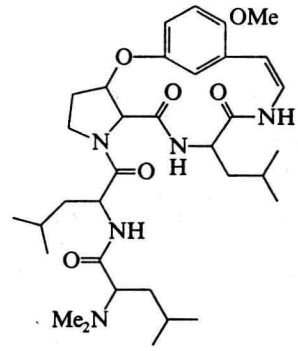
$C_{28}H_{42}N_4O_5$ M 514.664

Alkaloid from the stem bark of the Daechu tree (*Zizyphus jujuba* var. *inermis*) (Rhamnaceae). Mp 158°. $[\alpha]_D$ −648.3°.

Han, B.H. *et al*, *Pure Appl. Chem.*, 1989, **61**, 443.

Daechuine S8-1 D-00016

[123089-23-6]



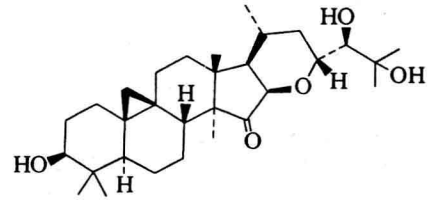
$C_{34}H_{53}N_5O_6$ M 627.823

Alkaloid from the stem bark of the Daechu tree (*Zizyphus jujuba* var. *inermis*) (Rhamnaceae). Mp 185-188°. $[\alpha]_D$ −218.2°.

Han, B.H. *et al*, *Pure Appl. Chem.*, 1989, **61**, 443.

Dahurinol D-00017

[38908-87-1]



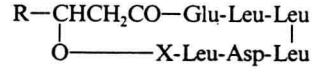
$C_{30}H_{48}O_5$ M 488.706

Aglycone from the rhizomes of *Cimicifuga dahurica*. Cryst. Mp 237-237.5°. $[\alpha]_D^{27}$ +54.5° ($CHCl_3$).

Sakurai, N. *et al*, *Yakugaku Zasshi*, 1972, **92**, 724; *CA*, **77**, 101932a.

Daitocidin D-00018

Pumilacidin. BU 3392V. Antibiotic BU 3392V



Daitocidin	A_1	R = $C_{12}H_{25}$, X = Val
	A_2	R = $C_{14}H_{29}$, X = Val
	B_1	R = $C_{12}H_{25}$, X = Ile
	B_2	R = $C_{13}H_{27}$, X = Ile
	B_3	R = $C_{14}H_{29}$, X = Ile
Pumilacidin	F	R = $(CH_2)_{10}CH(CH_3)_2$, X = Val
	G	R = $(CH_2)_{12}CH_3$, X = Val

Cyclic depsipeptide antibiotic complex. The identity of the various components of the Pumilacidin complex (formerly known as BU 3392V) with the Daitocidin components has not yet been conclusively establ. but appears probable. Chain-branching in the alkyl groups

was not defined for the Daitocidins. M.ps. and opt. rotns. reported are similar. Prod. by *Bacillus* sp. Q-55 and *B. pumilus*. Phospholipase A_2 inhibitor, antiviral agent.

Daitocidin A_1 [122911-23-3]
Pumilacidin B
$C_{53}H_{93}N_7O_{13}$ M 1036.357
Powder + $3H_2O$. Mp 137-141°. $[\alpha]_D^{20}$ −24° (c, 1 in MeOH).

Daitocidin A_2 [122895-77-6]
Pumilacidin D
$C_{55}H_{97}N_7O_{13}$ M 1064.410
Mp 138-140°. $[\alpha]_D^{20}$ −16° (c, 1 in MeOH).

Daitocidin B_1 [122895-78-7]
Pumilacidin A
$C_{54}H_{95}N_7O_{13}$ M 1050.384
Mp 145°. $[\alpha]_D^{20}$ −15° (c, 1 in MeOH).

Daitocidin B_2 [122895-79-8]
Pumilacidin E
$C_{55}H_{97}N_7O_{13}$ M 1064.410
Mp 137-140.5°, Mp 135-137°. $[\alpha]_D^{20}$ −16° (c, 1 in MeOH).

Daitocidin B_3 [122895-80-1]
Pumilacidin C
$C_{56}H_{99}N_7O_{13}$ M 1078.437
Mp 128-133°. $[\alpha]_D^{20}$ −13° (c, 1 in MeOH).

Pumilacidin F [128451-35-4]
$C_{54}H_{95}N_7O_{13}$ M 1050.384
Powder + $2H_2O$. Mp 139-143°. $[\alpha]_D^{23}$ −20.1° (c, 0.38 in MeOH).

Pumilacidin G [128422-74-2]
$C_{54}H_{95}N_7O_{13}$ M 1050.384
Powder + $1H_2O$. Mp 134-138°. $[\alpha]_D^{23}$ −19.5° (c, 0.3 in MeOH).

[128196-28-1, 128196-29-2, 128220-83-7]

Japan. Pat., 88 255 298, (1988); *CA*, **111**, 152138 (*Daitocidin*)
Naruse, N. *et al*, *J. Antibiot.*, 1990, **43**, 267 (*Pumilacidin*)

Dalatinone D-00019

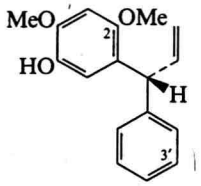
$C_{23}H_{18}O_5$ M 374.392
Struct. unknown. Quinone. Isol. from heartwood of *Dalbergia latifolia*. Red cryst. λ_{max} 249, 305, 428 nm, ν_{max} 1667 cm^{-1}.

Mono-Ac: Orange cryst. Mp 244-245°.

Rao, M.M. *et al*, *Tetrahedron Lett.*, 1963, 211.

Dalbergiphenol D-00020

2,4-Dimethoxy-5-(1-phenyl-2-propenyl)phenol, 9CI. 5-Hydroxy-2,4-dimethoxydalbergiquinol



(R)-form

$C_{17}H_{18}O_3$ M 270.327

(R)-form [82358-44-9]
Isol. from *Dalbergia parviflora*. Light-brown oil. $[\alpha]_D^{22}$ +31.9° (c, 0.64 in $CHCl_3$).

Me ether: ***2,4,5-Trimethoxydalbergiquinol***
$C_{18}H_{20}O_3$ M 284.354
Isol. from *D. cochinchinensis*.

2-O-De-Me: (+)-*Obtusaquinol*
$C_{16}H_{16}O_3$ M 256.301
Isol. from *D. retusa*.

2-O-De-Me, 3-methoxy: [1857-06-3]. *3,4-Dimethoxydalbergione quinol.* ***3,4-Dimethoxydalgiquinol***
$C_{17}H_{18}O_4$ M 286.327
Isol. from *Machaerium* spp. and *Prosopis* sp. Oil.

(S)-form [52811-31-1]
Isol. from heartwood of *D. sissoo*. Liq. $Bp_{0.3}$ 154-155°. $[\alpha]_D^{25}$ −33° ($CHCl_3$).

3'-Hydroxy: ***3'-Hydroxydalbergiphenol.*** *5-[1-(3-Hydroxyphenyl)-2-propenyl]-2,4-dimethoxyphenol, 9CI*
$C_{17}H_{18}O_4$ M 286.327
Isol. from *D. cultrata* heartwood. Cryst. (C_6H_6/pet. ether) (as di-Ac). Mp 93-95° (di-Ac). $[\alpha]_D^{21}$ +8.25° ($CHCl_3$) (di-Ac).

(±)-form

2-O-De-Me: ***Obtusaquinol.*** *2,5-Dihydroxy-4-methoxydalbergiquinol*
$C_{16}H_{16}O_3$ M 256.301
Isol. from *D. obtusa*, *D. retusa* and *Machaerium scleroxylon*.

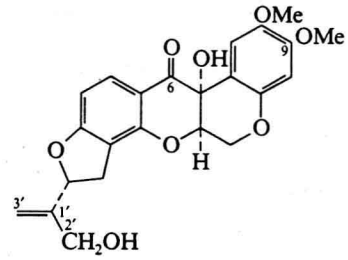
[36286-66-5]

Donnelly, D.M.X. *et al*, *Phytochemistry*, 1972, **11**, 823 (*3'-Hydroxydalbergiphenol*)
Jurd, L. *et al*, *Phytochemistry*, 1972, **11**, 3287 (*Obtusaquinol*)
Mulshrestha, S.K. *et al*, *Indian J. Chem.*, 1974, **12**, 10 (*isol*)
Ollis, W.D. *et al*, *Phytochemistry*, 1978, **17**, 1383, 1395 (*3,4-Diemethoxydalbergione quinol*)
Donnelly, D.M.X. *et al*, *J. Chem. Soc., Chem. Commun.*, 1981, 1254 (*derivs*)
Muannoicharoen, N. *et al*, *Phytochemistry*, 1982, **21**, 767 (*isol, ms, ir, pmr, cd*)

Dalbinol D-00021

1,2,12,12a-Tetrahydro-6a-hydroxy-2-[1-(hydroxymethyl)ethenyl]-8,9-dimethoxy-[1]benzopyrano[3,4-b]furo[2,3-h][1]benzopyran-6(6aH)-one, 9CI. 12a-Hydroxyamorphigenin

[41993-79-7]



$C_{23}H_{22}O_8$ M 426.422
CA numbering shown (side-chain here numbered 1',2',3'). Constit. of *Dalbergia latifolia* seeds. Also from *D. assamica*, *D. monetaria* and *Amorpha fruticosa*. Cryst. Mp 103-105°. $[\alpha]_D$ −122.5° (c, 1 in MeOH).

2'-O-β-D-Glucopyranoside: [68401-03-6]. ***Dalbin.*** *12a-Hydroxyamorphin*
$C_{29}H_{32}O_{13}$ M 588.564
From *D. latifolia* seeds, also *D. assamica*, *D. monetaria* and *A. fruticosa*. Mp 161-163°. $[\alpha]_D$ −58.8° (c, 0.13 in MeOH).

6β-Alcohol: [97673-80-8]. ***12-Dihydrodalbinol***
$C_{23}H_{24}O_8$ M 428.438
Constit. of *D. monetaria*. Amorph. solid. $[\alpha]_D^{21}$ −136.8° (c, 0.5 in MeOH).

6β-Alcohol, 2'-O-β-D-Glucopyranoside: [97640-97-6]. ***12-Dihydrodalbin***
$C_{29}H_{34}O_{13}$ M 590.580
From *D. monetaria*. Amorph. solid.

1',3'-Dihydro, 9-O-de-Me: [93290-65-4]. ***Volubinol***

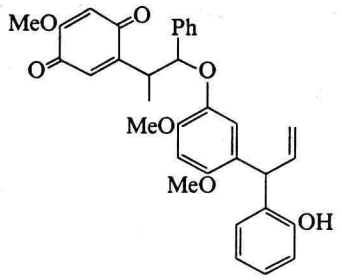
$C_{22}H_{22}O_8$ M 414.411
Isol. from *D. volubilis*. No stereochem. detd.

[41993-80-0, 41993-81-1, 41993-82-2]

Unai, T. *et al*, *Agric. Biol. Chem.*, 1973, **37**, 387.
Chibber, S.S. *et al*, *Phytochemistry*, 1978, **17**, 1442; 1979, **18**, 188 (*isol, struct, Dalbin, Dalbinol*)
Van Heerden, F.R. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1980, 2463 (*synth*)
Crombie, L. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1982, 789 (*biosynth*)
Ingham, J.L., *Fortschr. Chem. Org. Naturst.*, 1983, **43**, 1 (*occur*)
Chawla, H.M. *et al*, *Indian J. Chem., Sect. B*, 1984, **23**, 680 (*Volubinol*)
Kostova, I. *et al*, *Org. Mass Spectrom.*, 1985, **20**, 765 (*ms*)
Abe, F. *et al*, *Phytochemistry*, 1985, **24**, 1071 (*derivs*)

Dalcriodain D-00022

[81474-74-0]

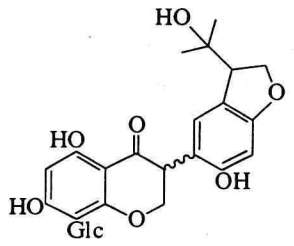


$C_{33}H_{32}O_7$ M 540.612
Isol. from wood of *Dalbergia latifolia*.
Ac: Cryst. (hexane). Mp 118-120°. $[\alpha]_D^{24}$ +128° (c, 4 in $CHCl_3$).

Donnelly, D.M.X. *et al*, *J. Chem. Soc., Chem. Commun.*, 1981, 1254.

Dalpanin D-00023

[37376-13-9]

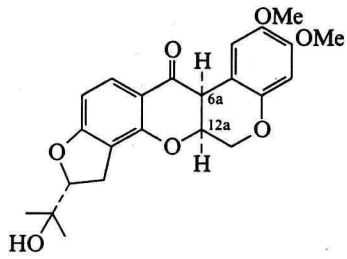


$C_{26}H_{30}O_{12}$ M 534.516
Isol. from flowers of *Dalbergia paniculata*. Cryst. Mp 267-268° dec.

Adinarayana, D. *et al*, *Phytochemistry*, 1973, **12**, 2543.
Adinarayana, D. *et al*, *Proc. - Indian Acad. Sci., Sect. A*, 1975, **81**, 23.

Dalpanol D-00024

1,2,12,12a-Tetrahydro-2-(1-hydroxy-1-methylethyl)-8,9-dimethoxy[1]benzopyrano[3,4-b]furo[2,3-h][1]benzopyran-6(6aH)-one, 9CI. 6′,7′-Dihydro-6′-hydroxyrotenone



$C_{23}H_{24}O_7$ M 412.438
CA numbering shown. Isol. from ripe seeds of *Dalbergia paniculata*. Also from *Amorpha fruticosa*. Cryst. (C_6H_6). Mp 196°. $[\alpha]_D^{22}$ −136.3° ($CHCl_3$).

O-β-D-Glucopyranoside: [52059-86-6].
$C_{29}H_{34}O_{12}$ M 574.580
Isol. from *D. paniculata* seeds. Cryst. solid. $[\alpha]_D^{34}$ −215.4° (c, 0.26 in 80% MeOH aq.).

6a,12a-Didehydro: ***Dehydrodalpanol***
$C_{23}H_{22}O_7$ M 410.423
Isol. from seeds of *D. paniculata*. Minute yellow needles ($CHCl_3$/MeOH). Mp 238-240°.

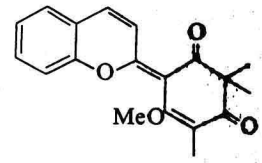
6a,12a-Didehydro, O-β-D-glucopyranoside: [133956-27-1].
***Dehydrodalpanol* O-β-D-glucoside**
$C_{29}H_{32}O_{12}$ M 572.565
Isol. from the seeds of *D. paniculata*. Yellow cryst. (EtOH aq.). Mp 248-250° dec. $[\alpha]_D^{28}$ −140° (c, 0.62 in MeOH).

[30462-22-7]

Adinarayana, D. *et al*, *J. Chem. Soc. C*, 1971, 29 (*isol*)
Crombie, L. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1973, 1277 (*synth*)
Radhakrishniah, M. *et al*, *Phytochemistry*, 1973, **12**, 3003 (*glucoside*)
Adinarayana, D. *et al*, *Indian J. Chem.*, 1975, **13**, 425 (*Dehydrodalpanol*)
Nakatani, N. *et al*, *Agric. Biol. Chem.*, 1977, **41**, 601 (*synth*)
Crombie, L. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1982, 789 (*biosynth*)
Rao, J.R. *et al*, *Phytochemistry*, 1991, **30**, 715 (***Dehydrodalpanol* glucoside**)

Dalrubone D-00025

[56015-02-2]



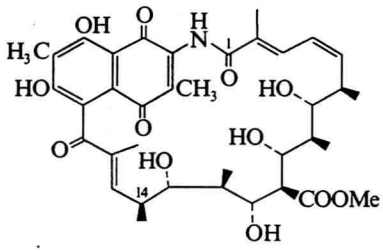
$C_{19}H_{18}O_4$ M 310.349
Pigment isol. from *Delea emoryi* and ***D. tinctoria***. Red cryst. (EtOAc/hexane). Mp 100.5-101.5°.

Dreyer, D.L. *et al*, *Tetrahedron*, 1975, **31**, 287 (***isol, struct***)
Roitman, J.N. *et al*, *Phytochemistry*, 1978, **17**, 161 (***synth***)
Dreyer, D.L. *et al*, *Phytochemistry*, 1978, **17**, 585 (***isol***)

Damavaricin D, 9CI D-00026

10-Demethyl-21-hydroxy-10-(methoxycarbonyl) protostreptovaricin I, 9CI

[59556-95-5]



$C_{37}H_{47}NO_{12}$ M 697.778

Ansamycin-type antibiotic. Metab. of *Streptomyces spectabilis*. Active against gram-positive bacteria including mycobacteria and tumours. Mp >290° dec.

14-Hydroxy: [58849-86-8]. *Damavaricin C. Streptovaricinone C*

$C_{37}H_{47}NO_{13}$ M 713.777

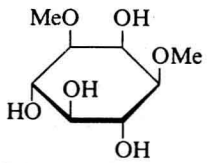
Semisynthetic. Degradn. prod. of Streptovaricin C. Active against gram-positive bacteria including mycobacteria.

Onodera, K. *et al*, *Agric. Biol. Chem.*, 1976, **40**, 2209 (*props*)
Sasaki, K. *et al*, *J. Antibiot.*, 1976, **29**, 147.
Rinehart, K.L. *et al*, *J. Antibiot.*, 1976, **29**, 201 (*isol, struct, synth*)

Dambonitol D-00027

*1,3-Di-O-methyl-*myo*-inositol, 9CI, 8CI. Dambonite*

[523-94-4]



$C_8H_{16}O_6$ M 208.211

Constit. of latex of *Dyera lowii* and in the leaves of *Anodendron affine*. Also from *Nerium oleander*, *Trachelospermum jasminoides* and other plants. Latex used for manuf. of chewing gum. Allergy inhibitor. Hygroscopic solid (EtOH) with sweet taste. Mp 210°. Exhibits polymorphism. Opt. inactive (*meso*-).

Tetra-Ac: 2,4,5,6-Tetra-O-acetyldambonitol

$C_{16}H_{24}O_{10}$ M 376.360

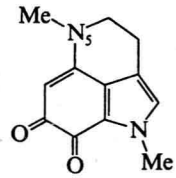
Cryst. (MeOH). Mp 195°.

Comollo, A.J. *et al*, *J. Chem. Soc.*, 1953, 3319 (*isol, constit*)
Kiang, A.K. *et al*, *J. Chem. Soc.*, 1956, 480.
Kindl, H. *et al*, *Monatsh. Chem.*, 1966, **97**, 1778 (*biosynth*)
Dorman, E.D. *et al*, *J. Am. Chem. Soc.*, 1970, **92**, 1351 (*cmr*)
Anderson, L., *The Carbohydrates*, Academic Press, 1972, **1A**, 519 (*rev*)
Paart, E. *et al*, *J. Chromatogr.*, 1973, **85**, 93 (*chromatog*)
Sakurai, K. *et al*, *Biosci., Biotechnol., Biochem.*, 1992, **56**, 975 (*isol, pmr, cmr, props*)

Damirone A D-00028

*1,3,4,5-Tetrahydro-1,5-dimethylpyrrolo[4,3,2-*de*]quinoline-7,8-dione, 9CI*

[138683-66-6]



$C_{12}H_{12}N_2O_2$ M 216.239

Alkaloid from the sponge *Damiria* sp. Purple solid. Mp 240-242° dec.

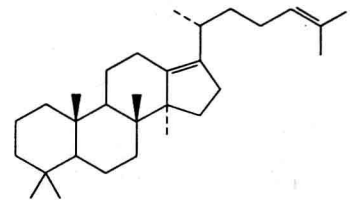
N^5*-De-Me:* [138683-68-8]. ***Damirone B.*** *1,3,4,5-Tetrahydro-1-methylpyrrolo[4,3,2-*de*]quinoline-7,8-dione, 9CI*

$C_{11}H_{10}N_2O_2$ M 202.212

Alkaloid from the sponge *D.* sp. Purple solid. Mp >250°.

Stierle, D.B. *et al*, *J. Nat. Prod.* (*Lloydia*), 1991, **54**, 1131 (*isol, uv, ir, pmr, ms, struct, cmr*)

Dammara-13(17),24-diene D-00029



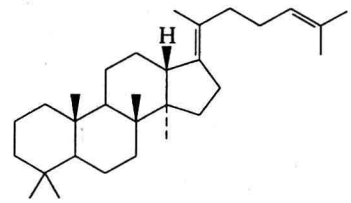
$C_{30}H_{50}$ M 410.725

(20R)-form

Constit. of *Polypodium* spp. Oil. $[\alpha]_D^{23}$ −14.4° ($CHCl_3$).

Arai, Y. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 4219 (*isol, pmr*)
Arai, Y. *et al*, *Phytochemistry*, 1991, **30**, 3369 (*isol, pmr*)

Dammara-17(20),24-diene D-00030



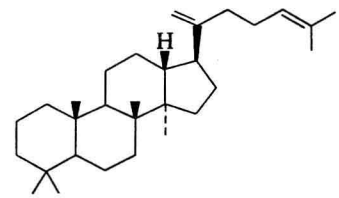
$C_{30}H_{50}$ M 410.725

Constit. of *Polypodium* spp. Oil.

Arai, Y. *et al*, *Phytochemistry*, 1991, **30**, 3369 (*isol, pmr, cmr*)

Dammara-20,24-diene D-00031

[87741-88-6]



$C_{30}H_{50}$ M 410.725

Constit. of the fern *Lemmaphyllum microphyllum* var. *obovatum*. Oil. $[\alpha]_D^{23}$ +57.1° (c, 0.7 in $CHCl_3$).

Masuda, K. *et al*, *Chem. Pharm. Bull.*, 1983, **31**, 2530.

Dammara-20,23-diene-3,25-diol D-00032

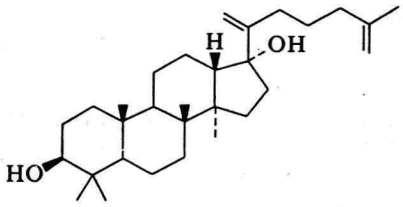
$C_{30}H_{50}O_2$ M 442.724

(3β,23E)-form [101559-95-9]

Constit. of *Santolina oblongifolia*. Cryst. (hexane). Mp 161-162°. $[\alpha]_D$ +58.6° (c, 0.82 in $CHCl_3$).

De Pascual Teresa, J. *et al*, *Phytochemistry*, 1986, **25**, 185.

Dammara-20,25-diene-3,17-diol D-00033



$C_{30}H_{50}O_2$ M 442.724

(3β,17α)-form

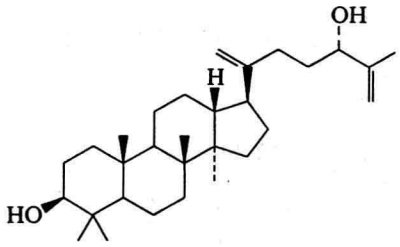
3-Ac: [101559-96-0]. *3β-Acetoxydammara-20,25-dien-17α-ol*

$C_{32}H_{52}O_3$ M 484.761

Constit. of *Santolina oblongifolia*. Cryst. (hexane). Mp 136-137°. $[\alpha]_D$ +48.8° (c, 1.43 in $CHCl_3$).

De Pascual Teresa, J. *et al*, *Phytochemistry*, 1986, **25**, 185.

Dammara-20,25-diene-3,24-diol D-00034



$C_{30}H_{50}O_2$ M 442.724

(3β,24S)-form [128778-80-3]

Constit. of *Abuta racemosa*. Ant repellent.

(3β,24ξ)-form

3-Ac:

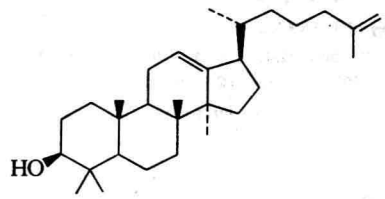
$C_{32}H_{52}O_3$ M 484.761

Constit. of *Dittrichia viscosa*. Cryst. (MeOH). Mp 135-136°. $[\alpha]_D$ +50.9° (c, 1.5 in MeOH).

Hammond, G.B. *et al*, *Phytochemistry*, 1990, **29**, 783 (*isol, cryst struct*)

Grande, M. *et al*, *Phytochemistry*, 1992, **31**, 1826 (*isol, pmr, cmr*)

Dammara-12,25-dien-3-ol D-00035



$C_{30}H_{50}O$ M 426.724

3β-form [85527-24-8]

Cryst. (MeOH). Mp 182-184°. $[\alpha]_D$ +116° (c, 0.82 in $CHCl_3$).

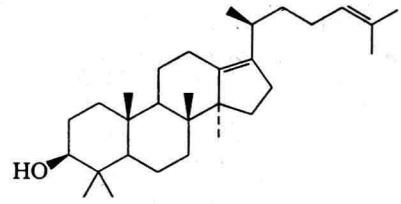
Ac: [85527-22-6].

$C_{32}H_{52}O_2$ M 468.762

Constit. of *Commelina undulata*. Cryst. (MeOH). Mp 177-178°. $[\alpha]_D$ +113° (c, 0.7 in Py).

Sharma, S.C. *et al*, *Phytochemistry*, 1982, **21**, 2420.

Dammara-13(17),24-dien-3-ol D-00036



$C_{30}H_{50}O$ M 426.724

(3β,20S)-form

Cryst. Mp 117-118°.

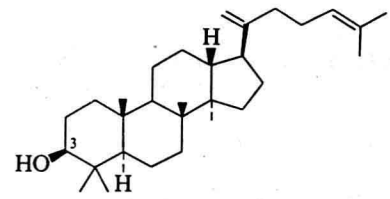
Ac:

$C_{32}H_{52}O_2$ M 468.762

Constit. of *Stevia salicifolia*. Cryst. Mp 56-58°. $[\alpha]_D$ +32° (c, 0.015 in $CHCl_3$).

Mata, R. *et al*, *Phytochemistry*, 1991, **30**, 3822 (*isol, pmr, cmr*)

Dammara-20,24-dien-3-ol D-00037



$C_{30}H_{50}O$ M 426.724

3β-form [20460-34-8] ***Dammaradienol. Dammadienol***

Constit. of Dammar resin. Also from *Inula helenium*. Cryst. (MeOH). Mp 136-138°. $[\alpha]_D$ +47° (c, 0.6 in $CHCl_3$).

Ac:

$C_{32}H_{52}O_2$ M 468.762

Isol. from *Olearia paniculata*. Cryst. (EtOH). Mp 153°. $[\alpha]_D^{20}$ +72.5° (c, 0.5 in $CHCl_3$).

3-Ketone: [16883-32-2]. ***Dammadienone***

$C_{30}H_{48}O$ M 424.709

Constit. of Dammar resin. Cryst. (MeOH). Mp 79-80°. $[\alpha]_D$ +90° (c, 0.6 in $CHCl_3$).

[52914-32-6]

Mills, J.S., *J. Chem. Soc.*, 1956, 2196 (*isol*)

Corbett, R.E. *et al*, *Aust. J. Chem.*, 1964, **17**, 712 (*acetate*)

Dammar-23-ene-3,25-diol D-00038

$C_{30}H_{52}O_2$ M 444.740

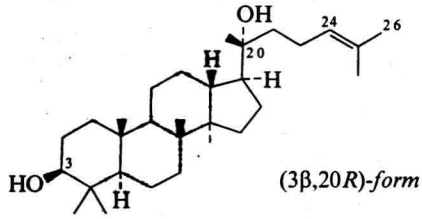
(3β,23E)-form [101559-94-8]

Constit. of *Santolina oblongifolia*. Cryst. (hexane). Mp 181-182°. $[\alpha]_D$ +48.4° (c, 1.09 in $CHCl_3$).

De Pascual Teresa, J. *et al*, *Phytochemistry*, 1986, **25**, 185.

Dammar-24-ene-3,20-diol D-00039

[19132-83-3]



(3β,20*R*)-*form*

$C_{30}H_{52}O_2$ M 444.740

(3β,20R)-form [14351-28-1] ***Dammarenediol I***

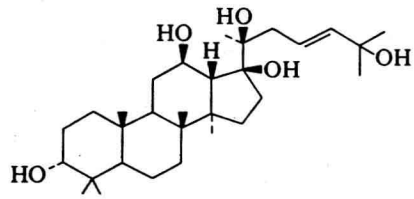
Constit. of Dammar resin. Cryst. (MeOH aq. or $MeNO_2$). Mp 142-144°. $[\alpha]_D$ +27° (c, 1.2 in $CHCl_3$).

(3β,20S)-form [14351-29-2] ***Dammarenediol II***

Constit. of Dammar resin. Cryst. (MeOH aq. or $MeNO_2$). Mp 131-133°. $[\alpha]_D$ +33° (c, 1.2 in $CHCl_3$).

Mills, J.S., *J. Chem. Soc.*, 1956, 2196 (*struct*)
Tanaka, O. *et al*, *Chem. Pharm. Bull.*, 1972, **20**, 1204 (*abs config*)
Kasai, R. *et al*, *Chem. Pharm. Bull.*, 1974, **22**, 1213 (*synth*)
Kasai, R. *et al*, *Chem. Pharm. Bull.*, 1977, **25**, 3277 (*ms*)
Asakawa, J. *et al*, *Tetrahedron*, 1977, **33**, 1935 (*cmr*)

Dammar-23-ene-3,12,17,20,25-pentol D-00040



$C_{30}H_{52}O_5$ M 492.738

(3α,12β,17βOH,20S,23E)-form [63955-93-1] ***Betulafolienepentol***

Constit. of *Betula platyphylla*. Cryst. (MeOH). Mp 203-204°.

Han, B.H. *et al*, *Phytochemistry*, 1977, **16**, 1075.

Dammar-24-ene-3,6,20,21,26-pentol D-00041

$C_{30}H_{52}O_5$ M 492.738

(3β,6α,20S)-form

Powder (Et_2O). Mp 110-114°. $[\alpha]_D^{23}$ +51.9° (c, 0.54 in MeOH).

26-O-β-D-Glucopyranoside: [97240-06-7]. ***Kizutasaponin K_{7B}***

$C_{36}H_{62}O_{10}$ M 654.880

Constit. of stem and bark of *Hedera rhombea*. Powder (MeOH aq.). Mp 131-134°. $[\alpha]_D^{23}$ +23.0° (c, 0.66 in MeOH).

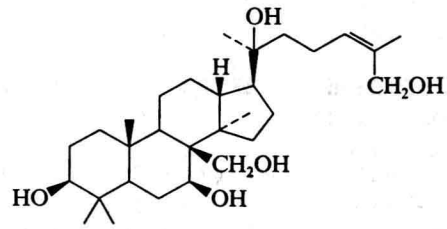
3-Ketone, 26-O-β-D-glucopyranoside: [97240-05-6]. ***Kizutasaponin K_{7A}***

$C_{36}H_{60}O_{10}$ M 652.864

Constit. of *H. rhombea*. Powder (MeOH aq.). Mp 181-185° dec. $[\alpha]_D^{20}$ +79.5° (c, 1.00 in MeOH).

Kizu, H. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 3176.

Dammar-24-ene-3,7,18,20,27-pentol D-00042



$C_{30}H_{52}O_5$ M 492.738

(3β,7β,20S,24Z)-form

Needles ($CHCl_3$). Mp 119-121°. $[\alpha]_D^{17}$ +7.6° (c, 0.87 in MeOH).

20-O-β-D-Glucopyranoside: [108906-62-3]. ***Actinostemmoside C***

$C_{36}H_{62}O_{10}$ M 654.880

Constit. of *Actinostemma lobatum*. Needles (MeOH aq.). Mp 194-197°. $[\alpha]_D^{17}$ +3.3° (c, 1.0 in MeOH).

Iwamoto, M. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 553.

Dammar-25-ene-3,12,17,20,24-pentol D-00043

$C_{30}H_{52}O_5$ M 492.738

(3α,12β,17αOH,20S,24ξ)-form [105822-01-3]

Constit. of *Betula pendula* leaves. $[\alpha]_D^{20}$ −3° (c, 0.5 in $CHCl_3$).

Pokhilo, N.D. *et al*, *Khim. Prir. Soedin.*, 1986, **22**, 166.

Dammar-23-ene-3,12,20,25-tetrol D-00044

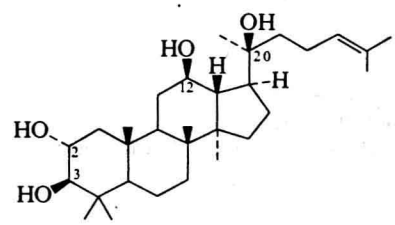
$C_{30}H_{52}O_4$ M 476.738

(3α,12β,20S,23E)-form [38736-83-3] ***Betulafolienetetrol B***

Constit. of *Betula platyphylla*. Cryst. ($CHCl_3$). Mp 130-133°. $[\alpha]_D$ −4.9° ($CHCl_3$).

Ikekawa, N. *et al*, *Phytochemistry*, 1972, **11**, 3037.

Dammar-24-ene-2,3,12,20-tetrol D-00045



$C_{30}H_{52}O_4$ M 476.738

(2α,3β,12β,20S)-form

20-O-β-D-Glucopyranoside: [77658-94-7]. ***Gynosaponin TN1***

$C_{36}H_{62}O_9$ M 638.880

Constit. of *Gynostemma pentaphyllum*. Cryst. (EtOH aq.). Mp 168-173°. $[\alpha]_D^{23}$ +34.5° (c, 0.9 in MeOH).

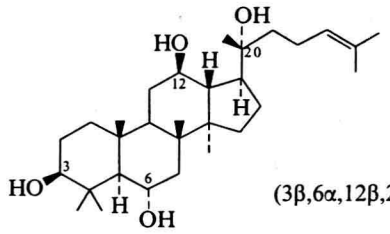
20-O-α-L-Rhamnopyranosyl-(1→6)-β-D-glucopyranoside: [77658-95-8]. ***Gynosaponin TN2***

$C_{42}H_{72}O_{13}$ M 785.023

Constit. of *G. pentaphyllum*. Cryst. (MeOH/$CHCl_3$/EtOAc). Mp 236-240°. $[\alpha]_D^{24}$ +11.6° (c, 1 in MeOH).

Nagai, M. *et al*, *Chem. Pharm. Bull.*, 1981, **29**, 779.

Dammar-24-ene-3,6,12,20-tetrol D-00046



(3β,6α,12β,20*R*)-*form*

$C_{30}H_{52}O_4$ M 476.738

(3β,6α,12β,20R)-form [1453-93-6] ***Protopanaxatriol***
Cryst. ($CHCl_3$). Mp 233-235°. $[\alpha]_D^{16}$ −8.2° ($CHCl_3$).

(3β,6α,12β,20S)-form [34080-08-5]
Noncryst. $[\alpha]_D^{21}$ +42.9° ($CHCl_3$).

6,20-Di-O-β-D-glucopyranoside: [22427-39-0]. ***Ginsenoside A_2.*** *Panaxoside A. Sanchinoside C_1*
$C_{42}H_{72}O_{14}$ M 801.022
Constit. of *Panax ginseng*. Powder. Mp 194-196.5°. $[\alpha]_D^{19.5}$ +32° (Py).
▷ LY9537200.

6-O-[α-L-Rhamnopyranosyl-(1→2)-β-D-glucopyranoside], 20-O-β-D-glucopyranoside: [52286-59-6]. ***Ginsenoside B_2.*** *Chikusetsusaponin IVe*
$C_{48}H_{82}O_{18}$ M 947.165
Constit. of *P. ginseng*. Cryst. (EtOH aq.). Mp 201-203°. $[\alpha]_D^{30}$ 0° (c, 1 in MeOH).

6-O-[β-D-Glucopyranosyl-(1→2)-β-D-glucopyranoside]: [52286-58-5]. ***Ginsenoside R_f***
$C_{42}H_{72}O_{14}$ M 801.022
Constit. of *P. ginseng*. Powder (Me_2CO). Mp 197-198°. $[\alpha]_D^{30}$ +7° (c, 1 in MeOH).

6-O-[α-L-Rhamnopyranosyl-(1→2)-β-D-glucopyranoside]: ***Ginsenoside C.*** *Chikusetsusaponin I. Ginsenoside R_{g_2}*
$C_{42}H_{72}O_{13}$ M 785.023
Constit. of *P. ginseng*. Cryst. (EtOH). Mp 187-189°. $[\alpha]_D^{30}$ +5.5° (c, 1 in MeOH).

3-O-[β-D-Glucopyranosyl-(1→2)-β-D-glucopyranoside], 20-O-[β-D-xylopyranosyl-(1→6)-β-D-glucopyranoside]: [68406-26-8]. ***Ginsenoside R_{b_3}***
$C_{53}H_{90}O_{23}$ M 1095.280
Constit. of *P. ginseng*. Powder (propan-2-ol). Mp 193-195°. $[\alpha]_D^{28}$ +19.4° (c, 1 in MeOH).

6-O-[β-D-Xylopyranosyl-(1→2)-β-D-glucopyranoside], 20-O-β-D-glucopyranoside: [80418-24-2]. ***Notoginsenoside R_1***
$C_{47}H_{80}O_{18}$ M 933.138
Constit. of roots of *P. notoginseng*. Needles (H_2O). Mp 215-217°. $[\alpha]_D^{25}$ +15.0° (c, 1.0 in MeOH).

6-O-[β-D-Xylopyranosyl-(1→2)-β-D-glucopyranoside]: [80418-25-3]. ***Notoginsenoside R_2***
$C_{41}H_{70}O_{13}$ M 770.996
Constit. of *P. notoginseng*. Powder. $[\alpha]_D^{15}$ +10.3° (c, 1.0 in MeOH).

Nagai, Y. *et al*, *Tetrahedron*, 1971, **27**, 881 (*isol*)
Sanada, S. *et al*, *Chem. Pharm. Bull.*, 1974, **22**, 2407 (*isol*)
Lin, T.D. *et al*, *Chem. Pharm. Bull.*, 1976, **24**, 253 (*isol*)
Sanada, S. *et al*, *Chem. Pharm. Bull.*, 1978, **26**, 1694 (*isol*)
Zhou, J. *et al*, *Chem. Pharm. Bull.*, 1981, **29**, 2844 (*isol*)

Dammar-24-ene-3,6,20,26-tetrol D-00047

$C_{30}H_{52}O_4$ M 476.738

(3β,6α,20S)-form [97271-57-3]
Needles (Et_2O). Mp 175-177°. $[\alpha]_D$ +48.7° (c, 1.1 in MeOH).

3-Ac: [97271-59-5].
$C_{32}H_{54}O_5$ M 518.776
Needles (MeOH). Mp 183°. $[\alpha]_D^{20}$ +56.7° (c, 1.50 in MeOH).

26-O-β-D-Glucopyranoside: [97271-56-2]. ***Kizutasaponin K***
$C_{36}H_{62}O_9$ M 638.880
Constit. of *Hedera rhombea*. Powder (MeOH aq.). Mp 128-132° dec. $[\alpha]_D^{20}$ +22.3° (c, 0.97 in MeOH).

3-Ac, 26-O-β-D-glucopyranoside: [97271-54-0]. ***Kizutasaponin K_4***
$C_{38}H_{64}O_{10}$ M 680.918
Constit. of *H. rhombea*. Powder ($Et_2O/CHCl_3$). Mp 116-120° (dec.). $[\alpha]_D^{20}$ +25.1° (c, 1.50 in MeOH).

3-Ketone: [97271-60-8]. *6α,20S,26-Trihydroxydammar-24-en-3-one. 3-Oxodammar-24-ene-6α,20S,26-triol*
$C_{30}H_{50}O_4$ M 474.723
Needles (Et_2O). Mp 161-163°. $[\alpha]_D$ +145° (c, 1.14 in MeOH).

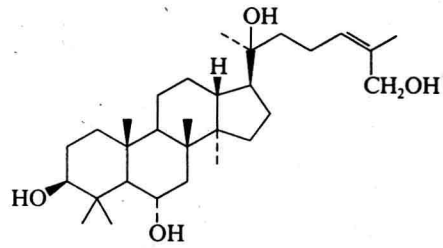
3-Ketone, 26-O-β-D-glucopyranoside: [97271-55-1]. ***Kizutasaponin K_5***
$C_{36}H_{60}O_9$ M 636.865
Constit. of *H. rhombea*. Needles (MeOH aq.). Mp 133-135° (dec.). $[\alpha]_D^{20}$ +84.5° (c, 1.04 in MeOH).

3,26-Di-O-β-D-glucopyranoside: [97240-02-3]. ***Kizutasaponin K_9***
$C_{42}H_{72}O_{14}$ M 801.022
Constit. of *H. rhombea*. Powder (MeOH/EtOAc). Mp 144-147° dec. $[\alpha]_D^{20}$ +10.8° (c, 1.05 in MeOH).

3-O-β-Sophoroside, 26-O-β-D-glucopyranoside: ***Kizutasaponin K_{13}***
$C_{48}H_{82}O_{19}$ M 963.164
Constit. of *H. rhombea*. Powder (MeOH/EtOAc). Mp 175-179°. $[\alpha]_D^{20}$ +3.0° (c, 0.76 in MeOH).

Kizu, H. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 1400, 3176 (*isol*)

Dammar-24-ene-3,6,20,27-tetrol D-00048



$C_{30}H_{52}O_4$ M 476.738

(3β,6α,20S,24Z)-form
Needles (Et_2O). Mp 148-150°. $[\alpha]_D^{20}$ +52.3° (c, 0.13 in MeOH).

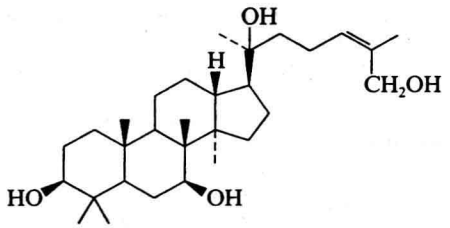
20-O-β-D-Glucopyranoside: [108906-64-5]. ***Actinostemmoside A***
$C_{36}H_{62}O_9$ M 638.880
Constit. of *Actinostemma lobatum*. Needles (EtOH aq.). Mp 125-130°. $[\alpha]_D^{16}$ +32.3° (c, 0.3 in MeOH).

(3β,6α,20R,24Z)-form
Needles (MeOH aq.). Mp 183-185°. $[\alpha]_D^{17}$ +49.0° (c, 0.1 in MeOH).

20-O-α-L-Rhamnopyranosyl-(1→2)-β-D-glucopyranoside: [108906-61-2]. ***Actinostemmoside D***
$C_{42}H_{72}O_{13}$ M 785.023
Constit. of *A. lobatum*. Needles (EtOH aq.). Mp 168-171°. $[\alpha]_D^{17}$ −2.2° (c, 1.0 in MeOH).

Iwamoto, M. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 553.

Dammar-24-ene-3,7,20,27-tetrol D-00049



$C_{30}H_{52}O_4$ M 476.738

(3β,7β,20S,24Z)-form

Needles (Et_2O). Mp 180-183°. $[\alpha]_D^{21}$ +24.5° (c, 0.1 in MeOH).

20-O-β-D-Glucopyranoside: [108906-63-4]. ***Actinostemmoside B***

$C_{36}H_{62}O_9$ M 638.880

Constit. of *Actinostemma lobatum*. Needles (EtOH aq.). Mp 142-145°. $[\alpha]_D^{19}$ +15.4° (c, 0.5 in MeOH).

Iwamoto, M. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 553.

Dammar-24-ene-3,12,17,20-tetrol D-00050

$C_{30}H_{52}O_4$ M 476.738

(3α,12β,17αOH,20S)-form [58851-26-6] ***Betulafolienetetrol***

Constit. of *Betula* spp. Cryst. (Me_2CO). Mp 168-170°. $[\alpha]_D^{17}$ +12.4° (c, 1.5 in $CHCl_3$).

Fischer, F.G. *et al*, *Justus Liebigs Ann. Chem.*, 1961, **644**, 146 (*struct*)

Kasai, R. *et al*, *Chem. Pharm. Bull.*, 1976, **24**, 400 (*synth*)

Dammar-25-ene-3,12,20,24-tetrol D-00051

$C_{30}H_{52}O_4$ M 476.738

(3α,12β,20S,24ξ)-form [38790-79-3] ***Betulafolienetetrol A***

Constit. of *Betula platyphylla*. Cryst. (Me_2CO). Mp 134-136°. $[\alpha]_D$ +16.3° (MeOH).

Ikekawa, M. *et al*, *Phytochemistry*, 1972, **11**, 3037.

Dammar-20-ene-3,24,25-triol D-00052

$C_{30}H_{52}O_3$ M 460.739

(3β,24R)-form [55050-69-6] ***24R-Aglaitriol***

Constit. of *Aglaia odorata*. Cryst. Mp 165-167°.

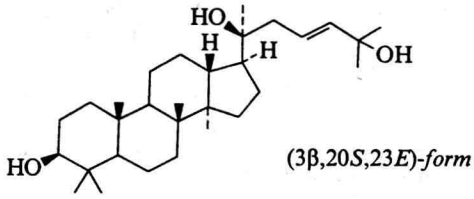
(3β,24S)-form [55053-57-1] ***24S-Aglaitriol***

Constit. of *A. odorata*. Cryst. Mp 185-186°.

Shiengthong, D. *et al*, *Tetrahedron*, 1974, **30**, 2211 (*isol*)

Boar, R.B. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1977, 510 (*struct*)

Dammar-23-ene-3,20,25-triol D-00053



(3β,20*S*,23*E*)-*form*

$C_{30}H_{52}O_3$ M 460.739

(3α,20S,23E)-form

3-Epiisofouquierol

Constit. of *Betula nana* and *B. exilis*. Cryst. (Me_2CO). Mp 162-165°. $[\alpha]_D^{14}$ +11.6° (c, 0.5 in $CHCl_3$).

(3β,5α,20S,23E)-form [53822-99-4] ***Isofouquierol***

Constit. of *Fouquieria splendens* and *Elaegia utilis*. Cryst. ($MeNO_2$/MeOH). Mp 108°. $[\alpha]_D$ +24° ($CHCl_3$).

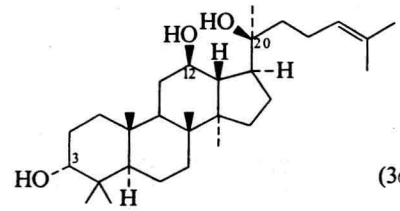
Butruilli, D. *et al*, *Tetrahedron Lett.*, 1974, 639 (*isol, struct*)

Butruilli, D. *et al*, *Rev. Latinoam. Quim.*, 1975, **6**, 84 (*synth*)

Biftu, T. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1978, **4**, 360 (*isol*)

Pokhilo, N.D. *et al*, *Khim. Prir. Soedin.*, 1985, 352 (*isol*)

Dammar-24-ene-3,12,20-triol, 9CI D-00054



(3α,12β,20*S*)-*form*

$C_{30}H_{52}O_3$ M 460.739

C(20) configs. in this series are variable and difficult to determine.

(3α,12β,20S)-form [7755-01-3] ***Betulafolienetriol***

Produced from *Panax ginseng* roots and from *Betula platyphylla*. Cryst. Mp 236-238° (197-198°). $[\alpha]_D$ +20.5° (c, 1 in $CHCl_3$).

3-O-[β-D-Xyopyranosyl-(1→6)-β-D-glucopyranoside]: [59252-86-7]. ***Chikusetsusaponin Ia***

$C_{41}H_{70}O_{12}$ M 754.997

Constit. of *P. japonicum*. Cryst. ($CHCl_3$/MeOH/EtOAc). Mp 194°. $[\alpha]_D^{16}$ −3.5° (c, 1.4 in $CHCl_3$).

(3β,12β,20S)-form [6892-79-1] ***Protopanaxadiol***

Sapogenin of Ginsenosides R_{b-1}, R_{b-2} and R_e from *P. ginseng*. Cryst. Mp 199-200°.

3-O-[β-D-Glucopyranosyl-(1→2)-β-D-glucopyranoside], 20-O-[β-D-glucopyranosyl-(1→6)-β-D-glucopyranoside]: [41753-43-9]. ***Ginsenoside R_{b1}***. *Sanchinoside E_1*. *Gypenoside III*. *Gynosaponin C*

$C_{54}H_{92}O_{23}$ M 1109.307

Constit. of *P. ginseng*. Powder. Mp 197-198°. $[\alpha]_D^{22}$ +12.4° (c, 0.9 in $CHCl_3$).

3-O-[β-D-Glucopyranosyl-(1→2)-β-D-glucopyranoside], 20-O-[α-L-arabinofuranosyl-(1→6)-β-D-glucopyranoside]: [11021-14-0]. ***Ginsenoside R_c***

$C_{53}H_{90}O_{22}$ M 1079.281

Constit. of *P. ginseng*. Powder. Mp 199-201°. $[\alpha]_D^{22}$ +1.9° (c, 1 in MeOH).

▷ LY9536300.

3-O-[β-D-Glucopyranosyl-(1→2)-β-D-glucopyranoside], 20-O-β-D-glucopyranoside: [52705-93-8]. ***Ginsenoside R_d***. *Gypenoside VIII*

$C_{48}H_{82}O_{18}$ M 947.165

Constit. of *P. ginseng*. Powder. Mp 206-209°. $[\alpha]_D^{22}$ +19.4° (c, 1 in MeOH).

3-O-[β-D-Glucopyranosyl-(1→2)-β-D-glucopyranoside], 20-O-[α-L-arabinopyranosyl-(1→6)-β-D-glucopyranoside]: [11021-13-9]. ***Ginsenoside R_{b2}***

$C_{53}H_{90}O_{22}$ M 1079.281

Constit. of *P. ginseng*. Powder. Mp 200-203°. $[\alpha]_D^{22}$ +3° (c, 1 in MeOH).

▷ LY9536100.

3-O-[β-Xylopyranosyl-(1→2)-β-glucopyranosyl-(1→2)-β-glucopyranoside], 20-O-[β-glucopyranosyl-(1→6)-β-D-glucopyranoside]: [88100-04-3]. ***Notoginsenoside F_a***

$C_{59}H_{100}O_{27}$ M 1241.423

Constit. of leaves of *P. notoginseng*. Needles (MeOH). Mp 235-240°. $[\alpha]_D^{17}$ −2.0° (c, 1.0 in H_2O).

3-O-[β-Xylopyranosyl-(1→2)-β-glucopyranosyl-(1→2)-β-glucopyranoside], 20-O-[β-xylopyranosyl-(1→6)-β-glucopyranoside]: [88122-52-5]. ***Notoginsenoside F_c***

$C_{58}H_{98}O_{26}$ M 1211.397

Constit. of leaves of *P. notoginseng*. Needles (MeOH). Mp 219-223°. $[\alpha]_D^{18}$ −1.4° (c, 0.67 in H_2O).

3-O-β-Glucopyranoside, 20-O-[α-arabinofuranosyl-(1→6)-β-glucopyranoside]: [88105-29-7]. ***Notoginsenoside F$_e$***
$C_{47}H_{80}O_{17}$ M 917.139
Constit. of leaves of *P. notoginseng*. Needles (MeOH). Mp 179-184°. $[\alpha]_D^{27}$ −0.3° (c, 0.8 in MeOH).

3-O-[β-D-Glucopyranosyl-(1→2)-β-D-glucopyranoside], 20-O-[β-D-xylopyranosyl-(1→4)-α-L-arabinopyranosyl-(1→6)-β-D-glucopyranoside]: [83459-41-0]. ***Ginsenoside R$_{a1}$***
$C_{58}H_{98}O_{26}$ M 1211.397
From root of *P. ginseng*. Powder. $[\alpha]_D^{25}$ +12.8° (c, 1.0 in MeOH).

3-O-[β-D-Glucopyranosyl-(1→2)-β-D-glucopyranoside], 20-O-[β-D-xylopyranosyl-(1→2)-α-L-arabinofuranosyl-(1→6)-β-D-glucopyranoside]: [83459-42-1]. ***Ginsenoside R$_{a2}$***
$C_{58}H_{98}O_{26}$ M 1211.397
From root of *P. ginseng*. Powder. $[\alpha]_D^{25}$ −2.4° (c, 1.0 in MeOH).

Nagai, M. *et al*, *Tetrahedron Lett.*, 1967, 3579 (*isol*)
Tanaka, O. *et al*, *Chem. Pharm. Bull.*, 1972, **20**, 1204 (*struct*)
Sanada, S. *et al*, *Chem. Pharm. Bull.*, 1974, **22**, 421, 2407 (*isol, struct*)
Lin, T.D. *et al*, *Chem. Pharm. Bull.*, 1976, **24**, 253 (*isol*)
Kasai, R. *et al*, *Chem. Pharm. Bull.*, 1976, **24**, 400 (*synth*)
Asakawa, J. *et al*, *Tetrahedron*, 1977, **33**, 1935 (*cmr*)
Besso, H. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 2380 (*isol*)
Koizumi, H. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 2393 (*isol*)
Yang, T.-R. *et al*, *Phytochemistry*, 1983, **22**, 1473 (*isol*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PAF450.

Dammar-24-ene-3,16,20-triol D-00055

$C_{30}H_{52}O_3$ M 460.739

(3β,16β,20R)-form
Cryst. Mp 212-214°. $[\alpha]_D$ +17.8° (c, 1 in $CHCl_3$).

3-Ac: ***3β-Acetoxydammar-24-ene-16β,20R-diol***
$C_{32}H_{54}O_4$ M 502.776
Constit. of *Boswellia frereana*. Cryst. (MeOH). Mp 183-185°. $[\alpha]_D$ +25° (c, 0.9 in $CHCl_3$).

Fattorusso, E. *et al*, *Phytochemistry*, 1985, **24**, 1035.

Dammar-24-ene-3,17,20-triol D-00056

$C_{30}H_{52}O_3$ M 460.739

(3α,17αOH,20S)-form [62023-93-2]
Constit. of *Betula costata*. Cryst. (pet. ether). Mp 140-142°. $[\alpha]_D^{20}$ +4.8° (c, 0.5 in $CHCl_3$).

Uvarova, N.I. *et al*, *Tetrahedron Lett.*, 1976, 4617.

Dammar-24-ene-3,20,26-triol D-00057

$C_{30}H_{52}O_3$ M 460.739

(3β,20S)-form [67233-50-5]
Constit. of *Elaegia utilis*. Cryst. (EtOH). Mp 198-199°. $[\alpha]_D$ 0°.

3,26-Di-O-β-D-glucopyranoside: [97287-24-6]. ***Kizutasaponin K$_{7c}$***
$C_{42}H_{72}O_{13}$ M 785.023
Constit. of *Hedera rhombea*. Needles (MeOH). Mp 217-220° dec. $[\alpha]_D$ +2.8° (c, 1.00 in MeOH).

Biftu, T. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1978, 360.
Kizu, H. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 1400.

Dammar-25-ene-3,20,24-triol D-00058

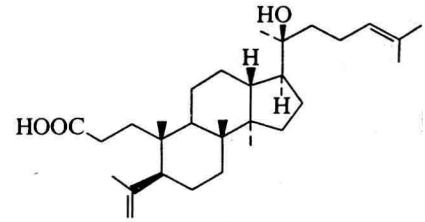
$C_{30}H_{52}O_3$ M 460.739

(3β,20S,24R)-form [53822-98-3] ***Fouquierol***
Constit. of *Fouquieria splendens*. Cryst. Mp 163-165°. $[\alpha]_D$ +29° ($CHCl_3$).

Butruille, D. *et al*, *Tetrahedron Lett.*, 1974, 639 (*struct*)
Butruille, D. *et al*, *Rev. Latinoam. Quim.*, 1976, **7**, 96 (*biosynth*)

Dammarenolic acid D-00059

20S-Hydroxy-3,4-secodammara-4(28),24-dien-3-oic acid
[34336-09-9]

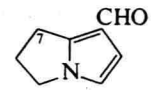


$C_{30}H_{50}O_3$ M 458.723
Constit. of dammar resin. Cryst. (MeOH aq.). Mp 138-142°. $[\alpha]_D$ +43° (c, 1 in $CHCl_3$).

Arigoni, D. *et al*, *J. Chem. Soc.*, 1960, 1900 (*isol*)
Rao, N.M. *et al*, *Tetrahedron*, 1975, **31**, 333 (*struct*)

Danaidal D-00060

2,3-Dihydro-1H-pyrrolizine-7-carboxaldehyde, 9CI. 1-Formyl-6,7-dihydro-5H-pyrrolizine
[27628-46-2]



C_8H_9NO M 135.165
Isol. from hair pencil and wing scent organ secretions of the butterflies *Danaus affinis affinis*, *Utetheisa lotrix*, *Phragmatobia fuliginosa* and *Pyrrharctia isabella*. Cryst. solid. Mp 59-60°.

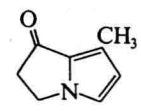
▷ UY7760000.

7R-Hydroxy: [28379-58-0]. ***Hydroxydanaidal.*** *2,3-Dihydro-1-hydroxy-1H-pyrrolizine-7-carboxaldehyde, 9CI. 1-Formyl-7-hydroxy-6,7-dihydro-5H-pyrrolizine*
$C_8H_9NO_2$ M 151.165
Found in butterflies *D. hamatus hamatus*, *Euploea tulliola tulliola* and *E. sylvester sylvester* and moths. $[\alpha]_D^{25}$ −140°. Prod. in the butterfly from Heliotrine with inversion of stereochem.

Culvenor, C.C.J. *et al*, *Aust. J. Chem.*, 1970, **23**, 1869 (*synth*)
Edgar, J.A. *et al*, *Experientia*, 1971, **27**, 761; 1972, **28**, 627 (*isol*)
Pizzorno, M.T. *et al*, *Chem. Ind. (London)*, 1978, 349 (*synth*)
Schneider, D. *et al*, *Science (Washington, D.C.)*, 1982, **215**, 1264 (*isol*)
Komai, H. *et al*, *Agric. Biol. Chem.*, 1983, **47**, 157 (*isol*)
Bell, T.W. *et al*, *Experientia*, 1984, **40**, 713 (*abs config, deriv*)
Röder, E. *et al*, *Justus Liebigs Ann. Chem.*, 1986, 1645 (*synth, ir, ms, pmr, cmr*)
Krasnoff, S.B. *et al*, *J. Chem. Ecol.*, 1987, **13**, 807.

Danaidone D-00061

2,3-Dihydro-7-methyl-1H-pyrrolizin-1-one, 9CI
[6064-85-3]



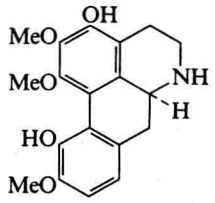
C_8H_9NO M 135.165
Pheromone from hair-pencil and wing sex gland secretions of butterflies in the genera *Lycorea* and *Danaus*. Obt. *in vivo* by metab. of pyrrolizidine alkaloids from plants. Mp 74-75°.

1'-Hydroxy: see *Loroquine, L-00754*

Meinwald, J. *et al, J. Am. Chem. Soc.*, 1966, **88**, 1305 (*isol, uv, ir, pmr, ms, struct, synth*)
Edgar, J.A. *et al, Experientia*, 1971, **27**, 761 (*isol*)
Petty, R.L. *et al, Experientia*, 1977, **33**, 1324 (*isol*)
Komai, H. *et al, Agric. Biol. Chem.*, 1983, **47**, 157.
Pereira, A.L. *et al, Quim. Nova*, 1983, **6**, 74 (*synth*)

Danguyelline D-00062

5,6,6a,7-Tetrahydro-1,2,10-trimethoxy-4H-dibenzo[de,g]*quinoline-3,11-diol, 9CI. 3,11-Dihydroxy-1,2,10-trimethoxynoraporphine*



$C_{19}H_{21}NO_5$ M 343.379

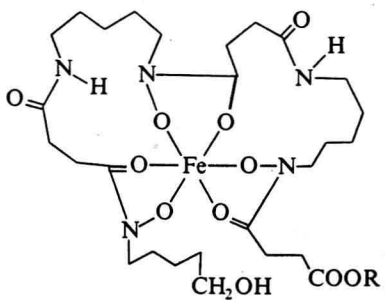
(S)-form [80151-80-0]
Alkaloid from the trunk bark of *Xylopia danguyella* (Annonaceae). Cryst. (MeOH). Mp 190°.

N-*Me:* [122297-36-3]. **N-*Methyldanguyelline.*** *3,11-Dihydroxy-1,2,10-trimethoxyaporphine*
$C_{20}H_{23}NO_5$ M 357.405
Alkaloid from the whole plant of *Thalictrum pedunculatum* (Ranunculaceae). $[\alpha]_D$ +96° (c, 0.25 in $CHCl_3$).

Hocquemiller, R. *et al, J. Nat. Prod.* (*Lloydia*), 1981, **44**, 551 (*uv, pmr, ms*)
Hussain, S.F. *et al, J. Nat. Prod.* (*Lloydia*), 1989, **52**, 428 (*struct, Danguyelline, N-Methyldanguyelline*)

Danomycin D-00063

[11005-96-2]



Partial structure

Fe complex antibiotic containing a disaccharide of unknown struct. Possesses two components. Prod. by *Streptomyces albaduncas*. Active against gram-positive bacteria and weakly against gram-negative bacteria and mycobacteria. Reddish-brown cryst. Mp 135-138° dec.

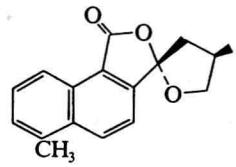
▷ HB4777000.

Danomycin B
$C_{42}H_{70}FeN_4O_{20}$ M 1006.877
Des-Ferri deriv.: Beige powder. Mp 122-125° dec.

Tsukiura, H. *et al, J. Antibiot., Ser. A*, 1964, **17**, 39 (*isol, props*)
Japan. Pat., 65 13 796, (1965); *CA*, **63**, 17092 (*isol, props*)
Huber, P. *et al, Helv. Chim. Acta*, 1986, **69**, 236 (*struct*)

Danshenspiroketallactone D-00064

[100414-80-0]



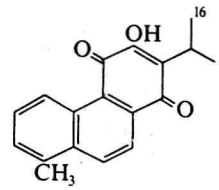
$C_{17}H_{16}O_3$ M 268.312
Constit. of *Salvia miltiorrhiza.*

13-Epimer: ***Epidanshenspiroketallactone***
$C_{17}H_{16}O_3$ M 268.312
Constit. of *S. miltiorrhiza.*

Kong, D. *et al, Yaoxue Xuebao*, 1985, **20**, 747 (*cryst struct*)
Luo, H.W. *et al, Phytochemistry*, 1988, **27**, 290 (*isol*)
Asari, F. *et al, Chem. Lett.*, 1990, 1185 (*struct*)

Danshexinkun B D-00065

3-Hydroxy-2-isopropyl-8-methyl-1,4-phenanthraquinone
[65907-76-8]



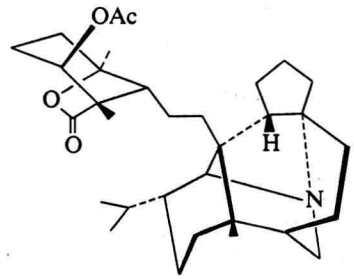
$C_{18}H_{16}O_3$ M 280.323
Isol. from roots of *Salvia miltiorrhiza*. Orange-red needles. Mp 182°.

16-Hydroxy: [65907-75-7]. ***Danshexinkun A***
$C_{18}H_{16}O_4$ M 296.322
From roots of *S. miltiorrhiza*. Orange-yellow cryst. Mp 200° (184-186°). $[\alpha]_D^{20}$ −33.5° (c, 0.09 in $CHCl_3$).

Fang, C. *et al, Huaxue Xuebao*, 1976, **34**, 197; *CA*, **88**, 177078 (*isol, uv, ir, pmr, ms*)
Lee, A.R. *et al, J. Nat. Prod.* (*Lloydia*), 1987, **50**, 157.
Ikeshiro, Y. *et al, Phytochemistry*, 1991, **30**, 2791 (*isol, pmr, cmr*)
Danheiser, R.L. *et al, Tetrahedron Lett.*, 1992, **33**, 1149 (*synth*)

Daphmacrine D-00066

2-(Acetyloxy)-1,5-dimethyl-8-(23-nordaphnan-22-yl)-6-oxabicyclo[3.2.1]octan-7-one, 9CI
[19775-48-5]



Absolute configuration

$C_{32}H_{49}NO_4$ M 511.743
Alkaloid from *Daphniphyllum macropodum* (Daphniphyllaceae). Noncryst.

B,HBr: Cryst. ($CHCl_3$/Me_2CO). Mp >300°. $[\alpha]_D$ +30.1° (c, 1.79 in MeOH).