被験動物　　：げっ歯類-マウス
投与量・期間：17280 mg/kg/9 週間間欠投与
毒性影響　　：〔催腫瘍性〕RTECS 基準による発がん性.
〔肺,胸郭,または呼吸〕腫瘍
〔腎臓・尿路・膀胱〕腎臓腫瘍.

参照文献

CNREA8 Cancer Research. (Public Ledger Building, Suit 816, 6th & Chestnut Sts., Philadelphia, PA 19106) V.1- 1941- [Vol.,頁,年(19-)]44,3098,1984

*****変異原性に関するデータ*****

〈〈試験方法〉〉微生物を用いた突然変異試験.
試験系　　：大腸菌 Salmonella typhimurium.
投与量・期間：10 ug/plate

参照文献

SYSWAE Shiyan Shengwu Xuebao. Journal of Experimental Biology. (China International Book Trading Corp., POB 2820, Beijing, Peop. Rep. China) V.1- 1953- Suspended 1966-77. [Vol.,頁,年(19-)]12,41,1979

〈〈試験方法〉〉微生物を用いた突然変異試験.
試験系　　：大腸菌 Salmonella typhimurium.
投与量・期間：500 nL/plate

参照文献

NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. [Vol.,頁,年(19-)]AD-A041-973

〈〈試験方法〉〉形態的形質変換.
試験系　　：ヒトの細胞(種は未特定).
投与量・期間：27500 ug/L

参照文献

ITCSAF In Vitro. (Rockville, MD) V.1-20, 1965-85. For publisher information, see ICDBEO. [Vol.,頁,年(19-)]17,719,1981

〈〈試験方法〉〉不定期 DNA 合成試験.
試験系　　：ヒトの肺.
投与量・期間：50 mg/L

参照文献

NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. [Vol.,頁,年(19-)]AD-A041-973

〈〈試験方法〉〉優勢致死試験.
曝露経路　　：腹腔内投与
試験系　　：げっ歯類-マウス
投与量・期間：830 mg/kg/5 日間(間欠的)

参照文献

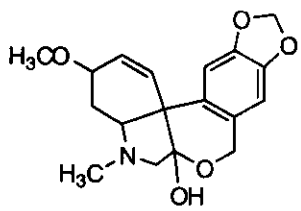
NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. [Vol.,頁,年(19-)]AD-A041-973

〈〈試験方法〉〉細胞遺伝学分析試験
試験系　　：げっ類-ハムスター肺
投与量・期間：60 mg/L

参照文献

MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherland) V.1- 1964- [Vol.,頁,年(19-)]241,175,1990

**§ Tazettine; (+)-form**

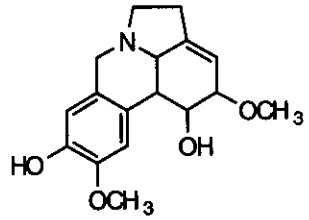


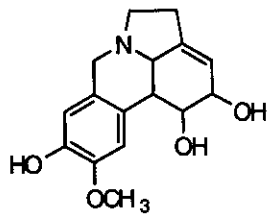

[CAS No.]507-79-9
[化合物分類]アルカロイド化合物(Amaryllidaceae alkaloid)
[構造式]
[基原]次の植物から分離: *Narcissus tazetta,* ヒガンバナ科
[用途]弱い血圧降下作用
[融点]Mp 210-211 ℃

[比旋光度]:[α]$_D^{16}$ +150 (CHCl$_3$)
[傷害・毒性]50 %致死量(LD$_{50}$)(イヌ, 静脈内投与) 71 mg/kg
----------文献----------
Ikeda, T. et al., J.C.S., 1956, 4749, (構造決定)
Highet, R.J. et al., Tet. Lett., 1966, 4099, (構造)
Sato, T. et al., J.C.S.(B), 1971, 1070, (結晶構造)
Kadyrov, K.A. et al., Khim. Prir. Soedin., 1979, 15, 585; Chem. Nat. Compd. (Engl. Transl.), 1979, 15, 513, (Ungvedine)
Suffness, M. et al., Alkaloids (N.Y.), 1985, 25, 203, (生育)
Pham, L.H. et al., Phytochemistry, 1999, 51, 327, (H-NMR, C13-NMR, *O*-Demethyltazettine)

**§ 3,4',5,7-Tetrahydroxy-3'-methoxyflavone; 5-Glycoside**
[化学名・別名]Tazettin
[化合物分類]フラボノイド(Flavonol; 5 × O-置換基)
[構造式]なし
[分子式]C$_{27}$H$_{32}$O$_{16}$
[分子量]612.54
[正確な分子量]612.16904
[基原]次の植物の花から分離: *Narcissus tazetta*
[融点]Mp 175-177 ℃
----------文献----------
Shikhiev, A.Sh. et al., Khim. Prir. Soedin., 1970, 6, 475; Chem. Nat. Compd. (Engl. Transl.), 1970, 6, 490, (Tazettin)

## §§ ヒガンバナ科キズイセン(ジョンキル) (*Narcissus jonquilla* L.)の花。

**§ Galanthine; *O*'-De-Me**

[化学名・別名]Goleptine
[化合物分類]アルカロイド化合物(Amaryllidaceae alkaloid)
[構造式]
[分子式]C$_{17}$H$_{21}$NO$_4$
[分子量]303.357
[正確な分子量]303.147059
[基原]次の植物から得られるアルカロイド: *Narcissus jonquilla* の交雑種"Golden Sceptre"(ヒガンバナ科)
[性状]微細結晶 (Me$_2$CO)
[融点]Mp 141 ℃
[比旋光度]:[α]$_D^{24}$ -99 (c, 0.2 in CHCl$_3$)
[その他のデータ]推定構造式.
----------文献----------
Doumlpke, W., Naturwissenschaften, 1963, 50, 645, (Goleptine, Golceptine)
Doumlpke, W., Arch. Pharm. (Weinheim, Ger.), 1964, 297, 39, (Goleptine, Golceptine)

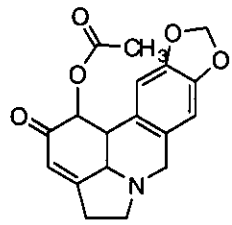
**§ Galanthine; *O*$^2$,*O*'-Di-de-Me**

[化学名・別名]Golceptine
[化合物分類]アルカロイド化合物(Amaryllidaceae alkaloid)
[構造式]
[分子式]C$_{16}$H$_{19}$NO$_4$
[分子量]289.33
[正確な分子量]289.131409
[基原]次の植物から得られるアルカロイド: *Narcissus jonquilla* (ヒガンバナ科)
[性状]結晶(Me$_2$CO)
[融点]Mp 146-148 ℃
[比旋光度]:[α]$_D^{24}$ -156 (c, 0.2 in CHCl$_3$)

[その他のデータ]推定構造式.

----------文献----------

Doumlpke, W., Naturwissenschaften, 1963, 50, 645, (Goleptine, Golceptine)
Doumlpke, W., Arch. Pharm. (Weinheim, Ger.), 1964, 297, 39, (Goleptine, Golceptine)

**§ Lycorine; (-)-form, 2-Ketone, 1-Ac**

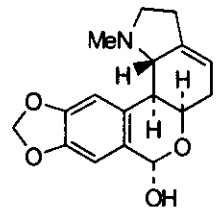


[化学名・別名]Jonquilline
[化合物分類]アルカロイド化合物(Amaryllidaceae alkaloid)
[構造式]
[分子式]$C_{18}H_{17}NO_5$
[分子量]327.336
[正確な分子量]327.110674
[基原]次の植物から得られるアルカロイド: *Narcissus jonquilla* Golden Sceptre hybrid
[性状]針状結晶(MeOH)
[融点]Mp 188-190 ℃で分解
[比旋光度]:$[\alpha]_D^{20}$ -325 (c, 0.5 in $CHCl_3$)

----------文献----------

Doumlpke, W. et al., Naturwissenschaften, 1963, 50, 354; 1965, 52, 60; 61, (Poetaminine, Jonquilline)
Sadikov, T. et al., Khim. Prir. Soedin., 1972, 8, 134; Chem. Nat. Compd. (Engl. Transl.), 1972, 8, 140, (代謝物)
Martin, S.F., Alkaloids (N.Y.), 1987, 30, 251, (レビュー)

**§ Oduline**

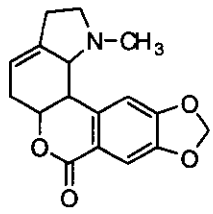


[CAS No.]477-18-9
[化合物分類]アルカロイド化合物(Amaryllidaceae alkaloid)
[構造式]
[分子式]$C_{17}H_{19}NO_4$
[分子量]301.341
[正確な分子量]301.131409
[基原]次の植物の球根から得られるアルカロイド: *Narcissus jonquilla* hybrids "Golden sceptre"、*Narcissus odorus* var. *rugulosus* (*Narcissus jonquilla* x *Narcissus poeticu*)(ヒガンバナ科)
[性状]プリズム結晶($Me_2CO$)
[融点]Mp 168 ℃
[比旋光度]:$[\alpha]_D^{25}$ +239 (c, 0.35 in $CHCl_3$)

----------文献----------

Boit, H.-G. et al., Chem. Ber., 1957, 90, 725, (分離, IR)
Boit, H.G. et al., Naturwissenschaften, 1958, 45, 85, (分離. IR, 構造決定, 生育, Masonine)
Doumlpke, W. et al., Naturwissenschaften, 1965, 52, 60, (生育, Masonine)
Doumlpke, W. et al., Arch. Pharm. (Weinheim, Ger.), 1966, 299, 994, (構造決定, stereochem, Masonine)
Doumlpke, W. et al., Pharmazie, 1966, 21, 323; CA, 65, 10632d, (構造決定)
Schnoes, H.K. et al., Tetrahedron, 1968, 24, 2825, (Mas)
Clardy, J. et al., J.O.C., 1972, 37, 49, (構造)
Battersby, A. et al., J.C.S. Perkin 1, 1973, 1609, (生合成, IR, H-NMR)
Kreh, M. et al., Phytochemistry, 1995, 38, 1533, (*O*-Methyloduline, *N*-Demethylmasonine)

**§ Oduline; 7-Ketone (lactone)**



[化学名・別名]Masonine
[CAS No.]568-40-1
[化合物分類]アルカロイド化合物(Amaryllidaceae alkaloid)
[構造式]
[分子式]$C_{17}H_{17}NO_4$
[分子量]299.326
[正確な分子量]299.1115759
[基原]次の植物から得られるアルカロイド: *Nerine masonorum* の球根, *Narcissus jonquilla* hybrid Golden Sceptre, and from *Galanthus nivalis* (ヒガンバナ科)

[性状]結晶(EtOAc/$Et_2O$)
[融点]Mp 180 ℃
[比旋光度]:[α]$_D^{25}$ +140 (c, 0.2 in $CHCl_3$)

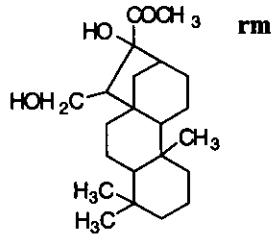
----------文献----------


Boit, H.-G. et al., Chem. Ber., 1957, 90, 725, (分離, IR)
Boit, H.G. et al., Naturwissenschaften, 1958, 45, 85, (分離. IR, 構造決定, 生育, Masonine)
Doumlpke, W. et al., Naturwissenschaften, 1965, 52, 60, (生育, Masonine)
Doumlpke, W. et al., Arch. Pharm. (Weinheim, Ger.), 1966, 299, 994, (構造決定, stereochem, Masonine)
Doumlpke, W. et al., Pharmazie, 1966, 21, 323; CA, 65, 10632d, (構造決定)
Schnoes, H.K. et al., Tetrahedron, 1968, 24, 2825, (Mas)
Clardy, J. et al., J.O.C., 1972, 37, 49, (構造)
Battersby, A. et al., J.C.S. Perkin 1, 1973, 1609, (生合成, IR, H-NMR)
Kreh, M. et al., Phytochemistry, 1995, 38, 1533, (*O*-Methyloduline, *N*-Demethylmasonine)


## *********スギ (Sugi, Peacock pine) *********

**§§ スギ科スギ(*Cryptomeria japonica* D. Don)の葉または材。**

**§ 17(16 → 15)-Abeo-16-acetyl-16,17-kauranediol; (*ent*-15 α *H*,16 α *OH*)-fo rm**

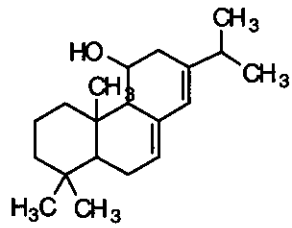


[CAS No.]155536-36-0
[化合物分類]テルペノイド(Rearranged kaurane diterpenoid)
[構造式]
[基原]*Cryptomeria japonica*
[性状]結晶(hexane)
[融点]Mp 170-171 ℃
[比旋光度]:[α]$_D^{25}$ +62.5 (c, 0.9 in $CHCl_3$)

----------文献----------


Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (分離, H-NMR, C13-NMR)


**§ 7,13-Abietadien-11-ol; 11 α-form**

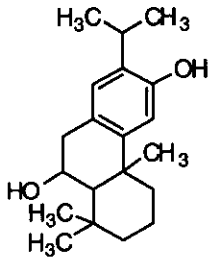


[CAS No.]239097-73-5
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D$ -45.8 (c, 0.17 in $CHCl_3$)

----------文献----------


Ashitani, T. et al., Nat. Prod. Lett., 1999, 13, 169, (分離, H-NMR, C13-NMR)

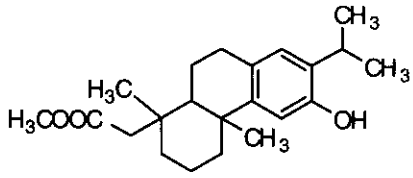

**§ 8,11,13-Abietatriene-6,12-diol; 6 α-form**



[CAS No.]70614-90-3
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]
[基原]*Cryptomeria japonica*
[性状]オイル様の塊
[比旋光度]:[α]$_D^{20}$ +9.4 (c, 0.5 in $CHCl_3$)
[その他のデータ]6-Config. は改正された(1996)

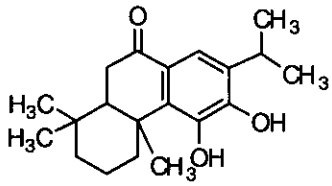
----------文献----------


Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (6-Hydroxyferruginol, 分離, H-NMR, C13-NMR)
Ulubelen, A. et al., Phytochemistry, 1995, 40, 861, (6-Oxoferruginol)
Kuo, Y.-H. et al., Chem. Pharm. Bull., 1996, 44, 1431, (分離, H-NMR, C13-NMR, 合成法)
Kuo, Y.H. et al., J. Nat. Prod., 1997, 60, 648, (分離, H-NMR, C13-NMR)
Ulubelen, A. et al., Phytochemistry, 1998, 47, 895, (hydroperoxyketone)

**§ 8,11,13-Abietatriene-12,19-diol; 19-Ac**
[化学名・別名]19-Acetoxyferruginol
[CAS No.]90832-22-7
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]

[分子式]$C_{22}H_{32}O_3$
[分子量]344.493
[正確な分子量]344.235145
[基原]*Podocarpus ferrugineus*, *Cryptomeria japonica*
[性状]ガム
[比旋光度]:$[\alpha]_D^{25}$ +52 (c, 0.6 in $CHCl_3$)

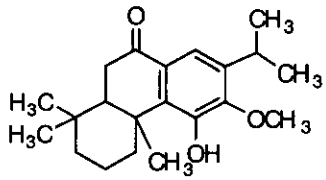
----------文献----------


Campello, J. de P. et al., Phytochemistry, 1975, 14, 243, (Lambertic acid)
Cambie, R.C. et al., Phytochemistry, 1984, 23, 333, (19-Hydroxyferruginol)
Hao, X.J. et al., J.C.S. Perkin 1, 1992, 1505-1509, (合成法)
Su, W.C. et al., Phytochemistry, 1996, 41, 255, (19-Acetoxyferruginol, C13-NMR)


**§ 8,11,13-Abietatriene-7,11,12-triol; 7 α-form, 7-Ketone**
[化学名・別名]11,12-Dihydroxy-8,11,13-abietatrien-7-one. Demethylcryptojaponol. 11-Hydroxysugiol
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]

[分子式]$C_{20}H_{28}O_3$
[分子量]316.439
[正確な分子量]316.203845
[基原]*Salvia phlomoides*, *Cryptomeria japonica*
[性状]青白い黄色の板状結晶(EtOAc/hexane)
[融点]Mp 184-187 ℃
[比旋光度]:$[\alpha]_D^{26}$ +31.2 (c, 0.635 in $CHCl_3$)

----------文献----------


Kondo, T. et al., Yakugaku Zasshi, 1962, 82, 1252, (分離)
Wenkert, E. et al., J.O.C., 1970, 35, 2422, (分離)
Yanagawa, T. et al., CA, 1971, 75, 148545a
Matsumoto, T. et al., Bull. Chem. Soc. Jpn., 1979, 52, 1459, (合成法)
Snitman, D.L. et al., Tet. Lett., 1979, 2477, (合成法)
Hueso-Rodriguez, J.A. et al., Phytochemistry, 1983, 22, 2005, (分離)
Valverde, S. et al., Phytochemistry, 1985, 24, 111
Kuo, Y.-H. et al., Chem. Pharm. Bull., 1990, 38, 3195, (誘導体)
Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (Cryptojaponol, 11-Hydroxysugiol, C13-NMR)
Dellar, J.E. et al., Phytochemistry, 1996, 41, 735, (12-Me ether)
Su, W.-C. et al., Phytochemistry, 1996, 43, 255, (誘導体)

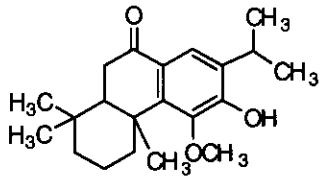

**§ 8,11,13-Abietatriene-7,11,12-triol; 7 α-form, 7-Ketone, 12-Me ether**
[化学名・別名]11-Hydroxy-12-methoxy-8,11,13-abietatrien-7-one. Cryptojaponol
[CAS No.]16755-52-5
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]

[分子式]$C_{21}H_{30}O_3$
[分子量]330.466
[正確な分子量]330.219495
[基原]*Cryptomeria japonica*, *Podocarpus ferrugineus*
[性状]結晶(MeOH)
[融点]Mp 205-207 ℃
[比旋光度]:$[\alpha]_D^{25}$ +25.3 ($CHCl_3$)

----------文献----------

Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (Cryptojaponol, 11-Hydroxysugiol, C13-NMR)
Dellar, J.E. et al., Phytochemistry, 1996, 41, 735, (12-Me ether)
Su, W.-C. et al., Phytochemistry, 1996, 43, 255, (誘導体)

**§ 8,11,13-Abietatriene-7,11,12-triol; 7 α-form, 7-Ketone, 11-Me ether**

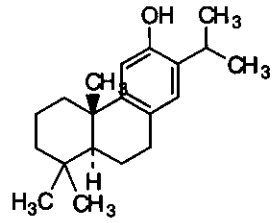
[化学名・別名]12-Hydroxy-11-methoxy-8,11,13-abietatrien-7-one
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]
[分子式]$C_{21}H_{30}O_3$
[分子量]330.466
[正確な分子量]330.219495
[基原]*Cryptomeria japonica*
[性状]結晶
[融点]Mp 177-178 ℃
[比旋光度]:$[\alpha]_D^{30}$ +10 (c, 0.3 in $CHCl_3$)



----------文献----------
Kondo, T. et al., Yakugaku Zasshi, 1962, 82, 1252, (分離)
Wenkert, E. et al., J.O.C., 1970, 35, 2422, (分離)
Yanagawa, T. et al., CA, 1971, 75, 148545a
Matsumoto, T. et al., Bull. Chem. Soc. Jpn., 1979, 52, 1459, (合成法)
Snitman, D.L. et al., Tet. Lett., 1979, 2477, (合成法)
Hueso-Rodriguez, J.A. et al., Phytochemistry, 1983, 22, 2005, (分離)
Valverde, S. et al., Phytochemistry, 1985, 24, 111
Kuo, Y.-H. et al., Chem. Pharm. Bull., 1990, 38, 3195, (誘導体)
Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (Cryptojaponol, 11-Hydroxysugiol, C13-NMR)
Dellar, J.E. et al., Phytochemistry, 1996, 41, 735, (12-Me ether)
Su, W.-C. et al., Phytochemistry, 1996, 43, 255, (誘導体)

**§ 8,11,13-Abietatrien-12-ol; 5 α-form**

[化学名・別名]Ferruginol
[CAS No.]514-62-5
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]
[基原]Miro tree の樹脂成分, *Podocarpus ferrugineus*. また *Podocarpus totara*, *Dacrydium* spp., *Cupressus* spp., *Cryptomeria japonica*, *Inula royleana* の根からも得られる
[性状]オイル
[沸点]$Bp_{0.3}$ 175 ℃
[比旋光度]:$[\alpha]_D^{16}$ +40.6 (EtOH)

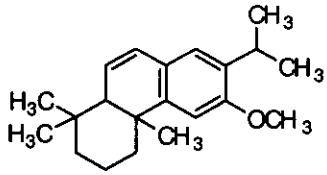


----------文献----------
Briggs, L.H. et al., Tetrahedron, 1959, 7, 270, (Dehydroferruginol)
Mangoni, L. et al., Tet. Lett., 1967, 2643, (1,3-Dioxoferruginyl methyl ether)
Yatagai, M. et al., Phytochemistry, 1980, 19, 1149, (15-Hydroxyferruginol)
Hasegawa, S. et al., Phytochemistry, 1982, 21, 643, (分離)
Matsumoto, T. et al., Bull. Chem. Soc. Jpn., 1991, 64, 2855, (合成法, 16-Hydroxyferruginol)
Ulubelen, A. et al., J. Nat. Prod., 1992, 55, 441, (14-Hydroxyferruginol)
Gonzaacutelez, A.G. et al., Phytochemistry, 1992, 31, 1691, (6,7-Didehydroferruginol)
Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (6,7-Didehydroferruginol methyl ether, C13-NMR)
Zhao, Q.-S. et al., Phytochemistry, 1998, 48, 1025, (16-Hydroxyferruginol, H-NMR, C13-NMR)

**§ 8,11,13-Abietatrien-12-ol; 5 α-form, 6,7-Didehydro, Me ether**

[化学名・別名]12-Methoxy-6,8,11,13-abietatetraene. 6,7-Didehydroferruginol methyl ether
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]

[分子式]$C_{21}H_{30}O$
[分子量]298.467
[正確な分子量]298.229665
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{25}$ -87 (c, 1 in $CHC_{13}$)

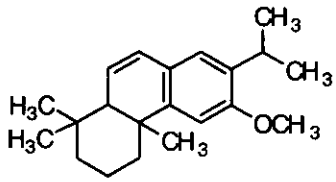


----------文献----------


Briggs, L.H. et al., Tetrahedron, 1959, 7, 270, (Dehydroferruginol)
Mangoni, L. et al., Tet. Lett., 1967, 2643, (1,3-Dioxoferruginyl methyl ether)
Yatagai, M. et al., Phytochemistry, 1980, 19, 1149, (15-Hydroxyferruginol)
Hasegawa, S. et al., Phytochemistry, 1982, 21, 643, (分離)
Matsumoto, T. et al., Bull. Chem. Soc. Jpn., 1991, 64, 2855, (合成法, 16-Hydroxyferruginol)
Ulubelen, A. et al., J. Nat. Prod., 1992, 55, 441, (14-Hydroxyferruginol)
Gonzaacutelez, A.G. et al., Phytochemistry, 1992, 31, 1691, (6,7-Didehydroferruginol)
Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (6,7-Didehydroferruginol methyl ether, C13-NMR)
Zhao, Q.-S. et al., Phytochemistry, 1998, 48, 1025, (16-Hydroxyferruginol, H-NMR, C13-NMR)


**§ 8,11,13-Abietatrien-12-ol; 5 β-form, 6,7-Didehydro, Me ether**

[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]
[分子式]$C_{21}H_{30}O$
[分子量]298.467
[正確な分子量]298.229665
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{28}$ -266 (c, 1 in $CHCl_3$)

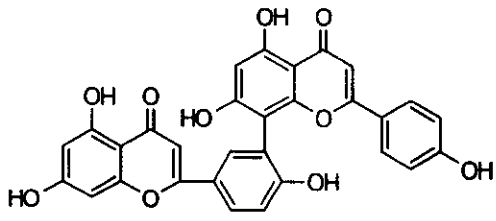


----------文献----------


Briggs, L.H. et al., Tetrahedron, 1959, 7, 270, (Dehydroferruginol)
Mangoni, L. et al., Tet. Lett., 1967, 2643, (1,3-Dioxoferruginyl methyl ether)
Yatagai, M. et al., Phytochemistry, 1980, 19, 1149, (15-Hydroxyferruginol)
Hasegawa, S. et al., Phytochemistry, 1982, 21, 643, (分離)
Matsumoto, T. et al., Bull. Chem. Soc. Jpn., 1991, 64, 2855, (合成法, 16-Hydroxyferruginol)
Ulubelen, A. et al., J. Nat. Prod., 1992, 55, 441, (14-Hydroxyferruginol)
Gonzaacutelez, A.G. et al., Phytochemistry, 1992, 31, 1691, (6,7-Didehydroferruginol)
Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (6,7-Didehydroferruginol methyl ether, C13-NMR)
Zhao, Q.-S. et al., Phytochemistry, 1998, 48, 1025, (16-Hydroxyferruginol, H-NMR, C13-NMR)

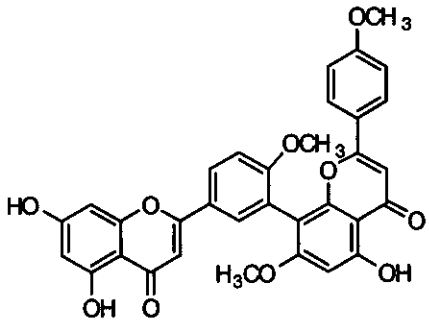

**§ Amentoflavone**

[化学名・別名]4',4''',5,5'',7,7''-Hexahydroxy-3''',8-biflavone(旧 CAS 名). 4',5,7-Trihydroxyflavone(3'→ 8)-4',5,7-trihydroxyflavone. 3',8-Bi[4',5,7-trihydroxyflavone]
[CAS No.]1617-53-4
[化合物分類]薬物: ブラジキン受容体拮抗薬(Bradykinin receptor antagonist), フラボノイド(Biflavonoid and polyflavonoid)
[構造式]
[分子式]$C_{30}H_{18}O_{10}$
[分子量]534.466
[正確な分子量]538.09
[基原]*Metasequoia glyptostroboides* の葉, *Cryptomeria japonica*, *Amentotaxus formosana*, *Viburnum prunifolium*, *Psilotum triquetrum*, *Callitris*, *Cupressus*, *Juniperus* spp. その他多く
[用途]ブラジキン拮抗薬
[性状]黄色の結晶(EtOH)
[融点]Mp 300 ℃
[比旋光度]:[α]$_D^{40}$ +9



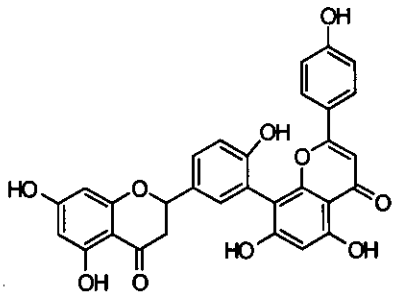
[溶解性]BERDY SOL: メタノール, クロロホルムに可溶; 水に難溶
[Log P 計算値]Log P 1.7 (計算値)
[UV]:[neutral] $\lambda_{max}$ 270 ( $\varepsilon$ 41600); 338 ( $\varepsilon$ 38900) (EtOH)
----------文献----------
Baker, W. et al., J.C.S., 1963, 1477, (分離, 構造決定, 誘導体)
Markham, K.R. et al., Phytochemistry, 1984, 23, 2053; 1987, 26, 3335; 1990, 29, 501, (配糖体, C13-NMR, 2,3-Dihydro-7-methylamentoflavone)
Geiger, H. et al., Z. Naturforsch., C, 1988, 43, 1; 1989, 44, 189, (5'-Hydroxyamentoflavone)

**§ Amentoflavone; 4',4''',7-Tri-Me ether**



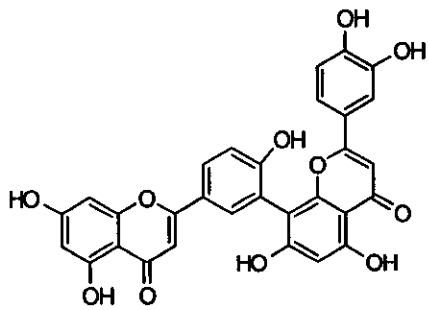
[化学名・別名]Kayaflavone
[CAS No.]481-45-8
[化合物分類]フラボノイド(Biflavonoid and polyflavonoid)
[構造式]
[分子式]$C_{33}H_{24}O_{10}$
[分子量]580.547
[正確な分子量]580.13695
[基原]*Torreya nucifera*, *Cryptomeria japonica*, *Podocarpus saligna*
[性状]青白い黄色の針状結晶($Me_2CO$)
[融点]Mp 335 (314-315 ℃)℃で分解
----------文献----------
C13-NMR, 2,3-Dihydro-7-methylamentoflavone)
Geiger, H. et al., Z. Naturforsch., C, 1988, 43, 1; 1989, 44, 189, (5'-Hydroxyamentoflavone)
Parmar, V.S. et al., Indian J. Chem., Sect. B, 1993, 32, 601, (4''',7,7''-tri-Me ether)

**§ Amentoflavone; 2'',3''-Dihydro**



[化学名・別名]2,3-Dihydroamentoflavone
[CAS No.]34340-51-7
[化合物分類]フラボノイド(Biflavonoid and polyflavonoid)
[構造式]
[分子式]$C_{30}H_{20}O_{10}$
[分子量]540.482
[正確な分子量]540.10565
[基原]*Cryptomeria japonica*, *Cycas* spp.
[性状]結晶(EtOH)
[融点]Mp 300 ℃
----------文献----------
Nakazawa, K., Chem. Pharm. Bull., 1962, 10, 1032, (合成法, 誘導体)
Baker, W. et al., J.C.S., 1963, 1477, (分離, 構造決定, 誘導体)
Batterham, R. et al., Aust. J. Chem., 1964, 17, 428, (H-NMR, 誘導体)
Houmlrhammer, L. et al., Naturwissenschaften, 1965, 52, 161, (分離)
Markham, K.R. et al., Phytochemistry, 1984, 23, 2053; 1987, 26, 3335; 1990, 29, 501, (配糖体, C13-NMR, 2,3-Dihydro-7-methylamentoflavone)
Geiger, H. et al., Z. Naturforsch., C, 1988, 43, 1; 1989, 44, 189, (5'-Hydroxyamentoflavone)
Krauze-Baranowska, M., Planta Med., 1999, 65, 482, (2,3-Dihydrosciadopitysin)

**§ Amentoflavone; 3'-Hydroxy**



[CAS No.]86682-62-4
[化合物分類]フラボノイド(Biflavonoid and polyflavonoid)
[構造式]
[分子式]$C_{30}H_{18}O_{11}$
[分子量]554.466
[正確な分子量]554.084915
[基原]*Cryptomeria japonica*
[性状]結晶(EtOH)

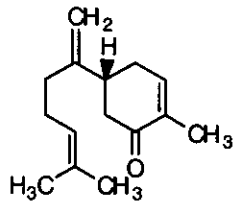
[融点] Mp 298-300 ℃

----------文献----------

Nakazawa, K., Chem. Pharm. Bull., 1962, 10, 1032, (合成法, 誘導体)
Baker, W. et al., J.C.S., 1963, 1477, (分離, 構造決定, 誘導体)
Batterham, R. et al., Aust. J. Chem., 1964, 17, 428, (H-NMR, 誘導体)
Houmlrhammer, L. et al., Naturwissenschaften, 1965, 52, 161, (分離)
Pelter, A. et al., Experientia, 1969, 25, 350, (性質)
Beckmann, S. et al., Phytochemistry, 1971, 10, 245, (誘導体)
Pelter, A. et al., Tetrahedron, 1971, 27, 1625, (性質)
Ilyas, N. et al., Phytochemistry, 1978, 17, 987, (誘導体)
Ahmad, I. et al., Phytochemistry, 1981, 20, 1169, (誘導体)
Ohmoto, T. et al., Chem. Pharm. Bull., 1983, 31, 919, (誘導体)
Markham, K.R. et al., Phytochemistry, 1984, 23, 2053; 1987, 26, 3335; 1990, 29, 501, (配糖体, C13-NMR, 2,3-Dihydro-7-methylamentoflavone)
Kamil, M. et al., Phytochemistry, 1987, 26, 1171, (誘導体)
Geiger, H. et al., Z. Naturforsch., C, 1988, 43, 1; 1989, 44, 189, (5'-Hydroxyamentoflavone)
Krauze-Baranowska, M., Planta Med., 1999, 65, 482, (2,3-Dihydrosciadopitysin)

**§ 3,7(14),10-Bisabolatrien-2-one**

[化学名・別名] 2-Methyl-5-(5-methyl-1-methylene-4-hexenyl)-2-cyclohexen-1-one. Cryptomerione
[CAS No.] 5988-72-7
[化合物分類] テルペノイド (Bisabolane sesquiterpenoid)
[構造式]



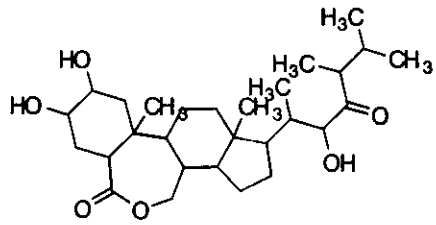
[分子式] $C_{15}H_{22}O$
[分子量] 218.338
[正確な分子量] 218.167065
[基原] *Cryptomeria japonica*, *Senecio macroglossus*
[比旋光度] : $[\alpha]_D$ -38 ($CHCl_3$)
[屈折率] $n^{26}{}_D$ 1.505

----------文献----------

Nagahama, S. et al., Bull. Chem. Soc. Jpn., 1964, 37, 1029, (分離)
Erdtman, H. et al., Phytochemistry, 1979, 18, 1495, (分離)
Bohlmann, F. et al., Phytochemistry, 1985, 24, 1249, (分離, H-NMR)
Gutierrez, A.B. et al., Phytochemistry, 1988, 27, 3871, (誘導体)

**§ Brassinolide; 23-Ketone, 24-epimer**

[化学名・別名] 24-Epi-23-dehydrobrassinolide
[CAS No.] 208346-75-2
[化合物分類] ステロイド (Withanolide and brassinolide steroid). (C28)
[構造式]



[分子式] $C_{28}H_{46}O_6$
[分子量] 478.668
[正確な分子量] 478.32944
[基原] *Cryptomeria japonica*

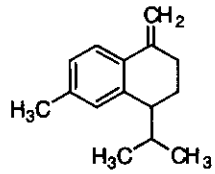
----------文献----------

Grove, M.D. et al., Nature (London), 1979, 281, 216, (分離, 結晶構造)
Sakakibara, M. et al., Agric. Biol. Chem., 1983, 47, 663, (合成法, 成書)
Singh, H. et al., Indian J. Chem., Sect. B, 1986, 25, 989, (レビュー)
Adam, G. et al., Phytochemistry, 1986, 25, 1787, (レビュー)
Yokota, T. et al., Biosci., Biotechnol., Biochem., 1998, 62, 526, (23-Dehydrobrassinolide)

**§ β-Calacorene**

[化学名・別名] 1,2,3,4-Tetrahydro-6-methyl-1-methylene-4-(1-methylethyl) naphthalene. 1,2,3,4-Tetrahydro-4-isopropyl-6-methyl-1-methylenenaphthalene

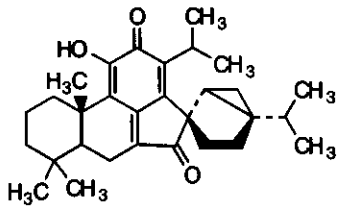
[CAS No.]50277-34-4
[化合物分類]テルペノイド(Cadinane sesquiterpenoid)
[構造式]
[分子式]$C_{15}H_{20}$
[分子量]200.323
[正確な分子量]200.1565
[基原]*Cryptomeria japonica*, *Teucrium polium*
[性状]オイル



----------文献----------

Vokov, D. et al., J. Nat. Prod., 1985, 48, 498, (分離)
Gupta, K. et al., J. Indian Chem. Soc., 1987, 64, 66, (分離, ガスクロマト)

**§ Chamaecydin**
[CAS No.]86746-82-9
[化合物分類]テルペノイド(Nor- and homoabietane diterpenoid)
[構造式]
[分子式]$C_{30}H_{40}O_3$
[分子量]448.644
[正確な分子量]448.297745
[基原]*Chamaecyparis obtusa* と *Cryptomeria japonica* の種子成分
[性状]黄色のプリズム結晶
[融点]Mp 196-197 ℃
[比旋光度]:$[\alpha]_D^{25}$ +40 (c, 0.96 in $CHCl_3$)

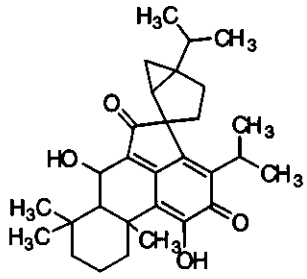


Absolute configuration

----------文献----------

Hirose, Y. et al., Tet. Lett., 1983, 24, 1535, (分離, 結晶構造)
Shibuya, T., Phytochemistry, 1992, 31, 4289, (分離, H-NMR, C13-NMR)
Su, W.-C. et al., Phytochemistry, 1993, 34, 779, (分離, H-NMR, C13-NMR)

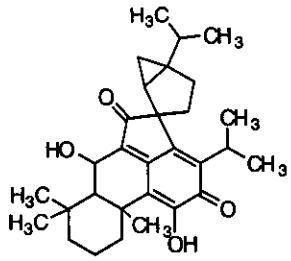
**§ Chamaecydin; 6 α-Hydroxy**
[化学名・別名]Chamaecydinol. 6 α-Hydroxychamaecydin
[CAS No.]86699-52-7
[化合物分類]テルペノイド(Nor- and homoabietane diterpenoid)
[構造式]
[分子式]$C_{30}H_{40}O_4$
[分子量]464.644
[正確な分子量]464.29266
[基原]*Chamaecyparis obtusa*, *Cryptomeria japonica*
[性状]黄色のプリズム結晶
[融点]Mp 220-221 ℃
[比旋光度]:$[\alpha]_D^{25}$ -113.8 (c, 0.91 in $CHCl_3$)



----------文献----------

Hirose, Y. et al., Tet. Lett., 1983, 24, 1535, (分離, 結晶構造)
Shibuya, T., Phytochemistry, 1992, 31, 4289, (分離, H-NMR, C13-NMR)
Su, W.-C. et al., Phytochemistry, 1993, 34, 779, (分離, H-NMR, C13-NMR)

**§ Chamaecydin; 6 β-Hydroxy**
[化学名・別名]6 β-Hydroxychamaecydin
[化合物分類]テルペノイド(Nor- and homoabietane diterpenoid)
[構造式]
[分子式]$C_{30}H_{40}O_4$
[分子量]464.644
[正確な分子量]464.29266
[基原]*Cryptomeria japonica*
[性状]橙色の結晶



[融点]Mp 206-208 ℃
[比旋光度]:[α]$_D^{25}$ +100 (c, 0.8 in $CHCl_3$)

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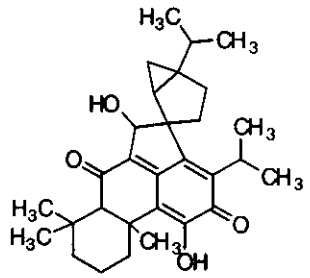
Hirose, Y. et al., Tet. Lett., 1983, 24, 1535, (分離, 結晶構造)
Shibuya, T., Phytochemistry, 1992, 31, 4289, (分離, H-NMR, C13-NMR)
Su, W.-C. et al., Phytochemistry, 1993, 34, 779, (分離, H-NMR, C13-NMR)

**§ Chamaecydin; 6-Oxo, 21 α-alcohol**

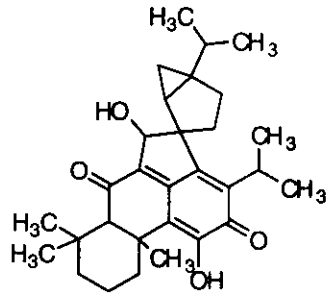


[化学名・別名]10'α-Hydroxycryptoquinone
[化合物分類]テルペノイド(Nor- and homoabietane diterpenoid)
[構造式]
[分子式]$C_{30}H_{40}O_4$
[分子量]464.644
[正確な分子量]464.29266
[基原]*Cryptomeria japonica*
[性状]橙色の結晶
[融点]Mp 210-212 ℃
[比旋光度]:[α]$_D^{25}$ +40 (c, 0.5 in $CHCl_3$)

----------文献----------

Hirose, Y. et al., Tet. Lett., 1983, 24, 1535, (分離, 結晶構造)
Shibuya, T., Phytochemistry, 1992, 31, 4289, (分離, H-NMR, C13-NMR)
Su, W.-C. et al., Phytochemistry, 1993, 34, 779, (分離, H-NMR, C13-NMR)

**§ Chamaecydin; 6-Oxo, 21 β-alcohol**

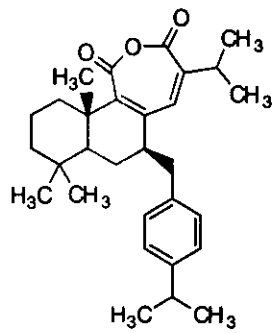


[化学名・別名]10'β-Hydroxycryptoquinone
[化合物分類]テルペノイド(Nor- and homoabietane diterpenoid)
[構造式]
[分子式]$C_{30}H_{40}O_4$
[分子量]464.644
[正確な分子量]464.29266
[基原]*Cryptomeria japonica*
[性状]橙色の結晶
[融点]Mp 202-203 ℃

----------文献----------

Hirose, Y. et al., Tet. Lett., 1983, 24, 1535, (分離, 結晶構造)
Shibuya, T., Phytochemistry, 1992, 31, 4289, (分離, H-NMR, C13-NMR)
Su, W.-C. et al., Phytochemistry, 1993, 34, 779, (分離, H-NMR, C13-NMR)

**§ Cryptomanhydride**



[CAS No.]166943-23-3
[関連 CAS No.]166534-22-1
[化合物分類]テルペノイド(p-Menthane monoterpenoid), テルペノイド(Secoabietane and secofriedoabietane diterpenoid)
[構造式]
[分子式]$C_{30}H_{40}O_3$
[分子量]448.644
[正確な分子量]448.297745
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{30}$ +370 (c, 0.4 in MeOH)

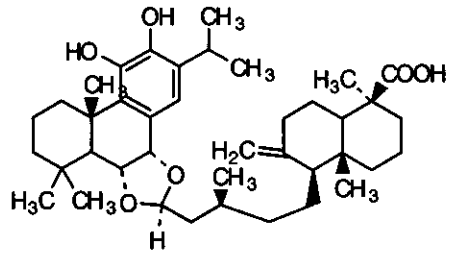
----------文献----------

Su, W.-C. et al., Tet. Lett., 1995, 36, 5367, (分離, H-NMR, C13-NMR, 合成法)

**§ Cryptomeria acetal A**

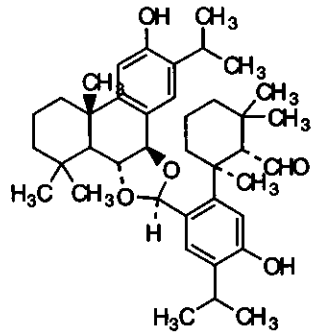
[CAS No.]172429-57-1

[化合物分類]テルペノイド(Labdane diterpenoid), テルペノイド(Abietane diterpenoid)
[構造式]
[分子式]$C_{40}H_{60}O_6$
[分子量]636.91
[正確な分子量]6366.43899
[基原]*Cryptomeria japonica*
[性状]結晶
[融点]Mp 134-136 ℃
[比旋光度]:[α]$_D^{20}$ +11 (c, 1.7 in $CHCl_3$)



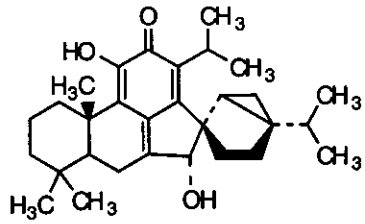
----------文献----------
Su, W.-C. et al., Phytochemistry, 1996, 41, 255, (分離, H-NMR, C13-NMR)

**§ Cryptomeria acetal B**
[CAS No.]172429-59-3
[化合物分類]テルペノイド(Secoabietane and secofriedoabietane diterpenoid), テルペノイド(Abietane diterpenoid)
[構造式]
[分子式]$C_{40}H_{56}O_5$
[分子量]616.879
[正確な分子量]616.412775
[基原]*Cryptomeria japonica*
[性状]結晶
[融点]Mp 144-145 ℃
[比旋光度]:[α]$_D^{28}$ +31 (c, 1.7 in $CHCl_3$)



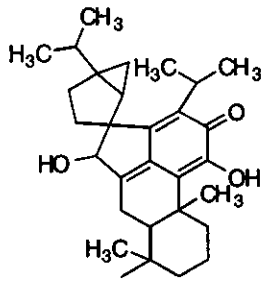
----------文献----------
Su, W.-C. et al., Phytochemistry, 1996, 41, 255, (分離, H-NMR, C13-NMR)

**§ Cryptoquinonemethide D**
[関連 CAS No.]145889-86-7, 145985-26-8, 146502-69-4, 146502-93-4
[化合物分類]テルペノイド(Nor- and homoabietane diterpenoid)
[構造式]
[分子式]$C_{30}H_{42}O_3$
[分子量]450.66
[正確な分子量]450.313395
[基原]*Cryptomeria japonica*
[性状]黄色のプリズム結晶 ($C_6H_6/Et_2O$)
[融点]Mp 239-240 ℃で分解
[比旋光度]:[α]$_D^{34}$ -129 (c, 0.98 in $CHCl_3$)



----------文献----------
Shibuya, T., Phytochemistry, 1992, 31, 4289, (分離, H-NMR, C13-NMR)

**§ Cryptoquinonemethide D; 21-Epimer**
[化学名・別名]Cryptoquinonemethide E
[化合物分類]テルペノイド(Nor- and homoabietane diterpenoid)
[構造式]
[分子式]$C_{30}H_{42}O_3$
[分子量]450.66
[正確な分子量]450.313395
[基原]*Cryptomeria japonica*
[性状]橙色の針状結晶($C_6H_6/Et_2O$)
[融点]Mp 205-206 ℃で分解
[比旋光度]:[α]$_D^{35}$ +155 (c, 0.52 in $CHCl_3$)



----------文献----------
Shibuya, T., Phytochemistry, 1992, 31, 4289, (分離, H-NMR, C13-NMR)

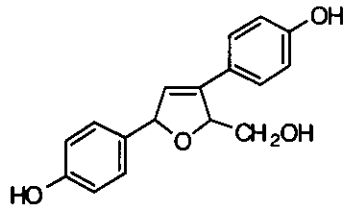
**§ Cryptoresinol**

[化学名・別名]2,5-Dihydro-3,5-bis(4-hydroxyphenyl)-2-furanmethanol(CAS 名).
4,4',9-Trihydroxy-9'-nor-7',8-epoxylign-7(8')-ene

[CAS No.]115713-11-6

[化合物分類]リグナン化合物(Norlignan)

[構造式]



[分子式]$C_{17}H_{16}O_4$

[分子量]284.311

[正確な分子量]284.10486

[基原]*Cryptomeria japonica* の心材, *Araucaria angustifolia* の瘤の樹脂

[性状]ピンク色の針状結晶($Et_2O$/MeOH or MeOH 溶液)

[融点]Mp 253-255 ℃ (230-232 ℃)

[比旋光度]:$[\alpha]_D^{25}$ -170.4 (c, 1.25 in MeOH)

----------文献----------


Takahashi, K. et al., Mokuzai Gakkaishi, 1986, 32, 457

Takahashi, K. et al., Phytochemistry, 1988, 27, 1550

Ohashi, H. et al., Phytochemistry, 1992, 31, 1371

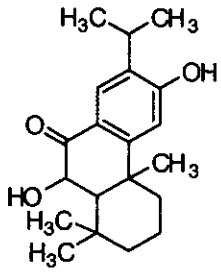

**§ 6,12-Dihydroxy-8,11,13-abietatrien-7-one; 6 α-form**

[化学名・別名]6 α-Hydroxysugiol

[CAS No.]55898-07-2

[化合物分類]テルペノイド(Abietane diterpenoid)

[構造式]



[基原]*Cryptomeria japonica*

[性状]結晶

[融点]Mp 207-208 ℃

[比旋光度]:$[\alpha]_D^{25}$ +35.3 (c, 0.5 in $CHCl_3$)

----------文献----------


Lin, Y.-T. et al., J. Chin. Chem. Soc. (Peking), 1975, 22, 331, (分離, H-NMR)

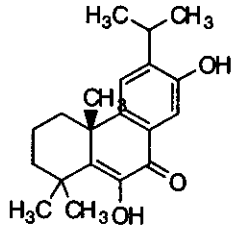
Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (分離, C13-NMR)


**§ 6,12-Dihydroxy-5,8,11,13-abietetraen-7-one**

[CAS No.]34327-29-2

[化合物分類]テルペノイド(Abietane diterpenoid)

[構造式]



[分子式]$C_{20}H_{26}O_3$

[分子量]314.424

[正確な分子量]314.188195

[基原]*Juniperus rigida*, *Cryptomeria japonica*

[性状]針状結晶($CHCl_3$)

[融点]Mp 189-190 ℃

[比旋光度]:$[\alpha]_D^{26}$ -8.5 (c, 0.9 in $CHCl_3$)

----------文献----------


Yanagawa, T. et al., CA, 1971, 75, 148545a, (分離)

Burnell, R.H., J. Nat. Prod., 1993, 56, 627, (合成法)

Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (分離, H-NMR, C13-NMR)

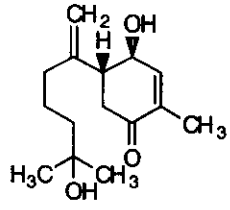

**§ 5,11-Dihydroxy-3,7(14)-bisaboladien-2-one**

[化学名・別名]Cryptomerone

[CAS No.]24112-89-8

[化合物分類]テルペノイド(Bisabolane sesquiterpenoid)

[構造式]



Absolute configuration

[分子式]$C_{15}H_{24}O_3$

[分子量]252.353

[正確な分子量]252.172545

[基原] *Cryptomeria japonica* の木部

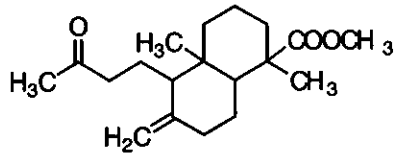
----------文献----------

Itocirc, S. et al., Tet. Lett., 1969, 3185

**§ 14,15-Dinor-13-oxo-8(17),11-labdadien-19-oic acid; (11*E*)-form, 11,12-Dihydro, Me ester**

[化合物分類] テルペノイド (Norlabdane diterpenoid)

[構造式]



[分子式] $C_{19}H_{30}O_3$

[分子量] 306.444

[正確な分子量] 306.219495

[基原] *Cryptomeria japonica*

[性状] オイル

[比旋光度]: $[\alpha]_D^{25}$ +37.1 (c, 1.4 in $CHCl_3$)

----------文献----------

Inoue, M. et al., Phytochemistry, 1985, 24, 1602, (分離, H-NMR)

Fang, J.-M. et al., Phytochemistry, 1996, 41, 1361, (分離)

Su, W.C. et al., Phytochemistry, 1996, 43, 255, (11,12-dihydro Me ester)

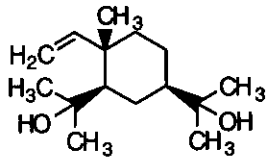
Muhammad, I. et al., Phytother. Res., 1996, 10, 604, (分離, H-NMR, C13-NMR)

**§ 1-Elemene-4,11-diol**

[CAS No.] 165816-60-4

[化合物分類] テルペノイド (Elemane sesquiterpenoid)

[構造式]



[分子式] $C_{15}H_{28}O_2$

[分子量] 240.385

[正確な分子量] 240.20893

[基原] *Cryptomeria japonica*

[性状] オイル

[比旋光度]: $[\alpha]_D^{15}$ -14 (c, 0.5 in $CHCl_3$)

----------文献----------

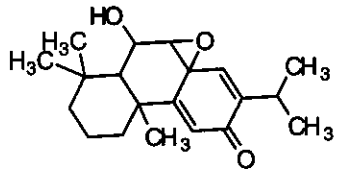
Su, W.-C. et al., Phytochemistry, 1995, 39, 603, (分離, H-NMR, C13-NMR)

**§ 7,8-Epoxy-6-hydroxy-9(11),13-abietadien-12-one; (6 α,7 α,8 α)-form**

[CAS No.] 155536-35-9

[化合物分類] テルペノイド (Abietane diterpenoid)

[構造式]



[基原] *Cryptomeria japonica*

[性状] オイル

[比旋光度]: $[\alpha]_D^{25}$ -42.5 (c, 2 in $CHCl_3$)

----------文献----------

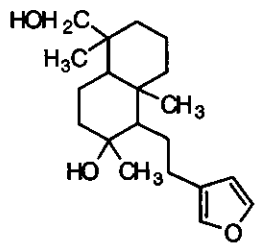
Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (分離, H-NMR, C13-NMR)

**§ 15,16-Epoxy-13(16),14-labdadiene-8,19-diol; 8 α-form**

[CAS No.] 159692-56-5

[化合物分類] テルペノイド (Labdane diterpenoid)

[構造式]



[基原] *Cryptomeria japonica*

[性状] 結晶 ($CHCl_3$/hexane)

[融点] Mp 163-164 ℃

[比旋光度]: $[\alpha]_D^{20}$ +20 (c, 0.5 in $CHCl_3$)

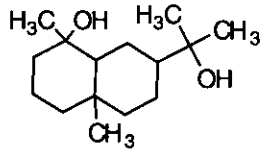
----------文献----------

Su, W.-C. et al., Phytochemistry, 1994, 37, 1109, (分離, H-NMR, C13-NMR)

**§ 4,11-Eudesmanediol; 4 α-form**

[化学名・別名] Cryptomeridiol. Proximadiol

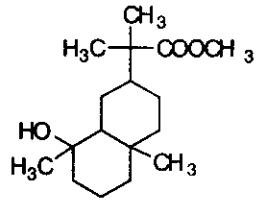
[CAS No.]4666-84-6
[化合物分類]薬物: 鎮痙薬(Antispasmodic), テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]
[基原]*Cryptomeria japonica*, *Cympobogon proximus*, *Widdringtonia dracomontana*, *Fokienia hodgkinsii*, *Callitris columellaris*, その他
[用途]鎮痙薬
[性状]結晶
[融点]Mp 138 ℃ (134.5-135.5 ℃)
[比旋光度]:[α]$_D$ -33.3 ($CHCl_3$)
[Log P 計算値]Log P 2.98 (計算値)



----------文献----------


Irwin, M.A. et al., Phytochemistry, 1973, 12, 849, (分離)
Cruz, A. et al., Phytochemistry, 1973, 12, 2549, (分離)
Nanayakkara, N.P.D. et al., J. Chem. Res., Synop., 1986, 454, (4-Epicryptomeridiol)
Ahmed, V.U. et al., J. Nat. Prod., 1992, 55, 73, (diepimer)
Su, W.-C. et al., Phytochemistry, 1994, 37, 1109; 1995, 39, 603, (diterpene esters, 11-Ac)

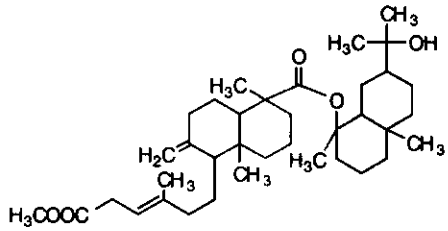

**§ 4,11-Eudesmanediol; 4 α-form, 11-Ac**
[化学名・別名]11-Acetoxy-4-eudesmanol
[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]
[分子式]$C_{17}H_{30}O_3$
[分子量]282.422
[正確な分子量]282.219495
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{25}$ -13 (c, 2.7 in $CHCl_3$)



----------文献----------


Irwin, M.A. et al., Phytochemistry, 1973, 12, 849, (分離)
Cruz, A. et al., Phytochemistry, 1973, 12, 2549, (分離)
Nanayakkara, N.P.D. et al., J. Chem. Res., Synop., 1986, 454, (4-Epicryptomeridiol)
Ahmed, V.U. et al., J. Nat. Prod., 1992, 55, 73, (diepimer)
Jakupovic, J. et al., Phytochemistry, 1992, 31, 863, (分離, H-NMR)
Su, W.-C. et al., Phytochemistry, 1994, 37, 1109; 1995, 39, 603, (diterpene esters, 11-Ac)


**§ 4,11-Eudesmanediol; 4 α-form, 4-[15-Acetoxy-8(17),13*E*-labdadien-19-oyl] ester**
[CAS No.]159692-59-8
[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid), テルペノイド(Labdane diterpenoid)
[構造式]
[分子式]$C_{37}H_{60}O_5$
[分子量]584.878
[正確な分子量]584.444075
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{25}$ +14.5 (c, 0.9 in $CHCl_3$)

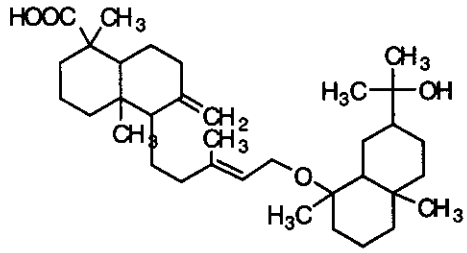


----------文献----------


Irwin, M.A. et al., Phytochemistry, 1973, 12, 849, (分離)
Cruz, A. et al., Phytochemistry, 1973, 12, 2549, (分離)
Nanayakkara, N.P.D. et al., J. Chem. Res., Synop., 1986, 454, (4-Epicryptomeridiol)
Ahmed, V.U. et al., J. Nat. Prod., 1992, 55, 73, (diepimer)
Jakupovic, J. et al., Phytochemistry, 1992, 31, 863, (分離, H-NMR)
Su, W.-C. et al., Phytochemistry, 1994, 37, 1109; 1995, 39, 603, (diterpene esters, 11-Ac)


**§ 4,11-Eudesmanediol; 4 α-form, 4-Ether with 15-position of 8(17),13*E*-labdadien-19-oic acid**

[CAS No.]159692-49-6
[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid), テルペノイド(Labdane diterpenoid)
[構造式]

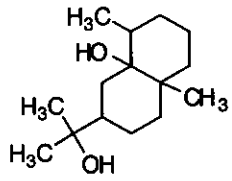


[分子式]$C_{35}H_{58}O_4$
[分子量]542.841
[正確な分子量]542.43351
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{25}$ +20 (c, 1.9 in $CHCl_3$)

----------文献----------


Irwin, M.A. et al., Phytochemistry, 1973, 12, 849, (分離)
Cruz, A. et al., Phytochemistry, 1973, 12, 2549, (分離)
Kaneko, N. et al., Phytochemistry, 1985, 24, 185, (4-Methoxyeudesmanol)
Nanayakkara, N.P.D. et al., J. Chem. Res., Synop., 1986, 454, (4-Epicryptomeridiol)
Ahmed, V.U. et al., J. Nat. Prod., 1992, 55, 73, (diepimer)
Shun-Hua, W. et al., Phytochemistry, 1993, 34, 1176, (Isodonsesquistin A)
Su, W.-C. et al., Phytochemistry, 1994, 37, 1109; 1995, 39, 603, (diterpene esters, 11-Ac)


**§ 5,11-Eudesmanediol; (4 β,5 α,7 β,10 β)-form**

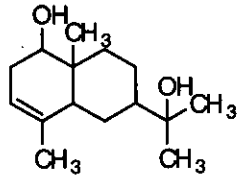


[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]
[基原]*Cryptomeria japonica*
[性状]結晶
[融点]Mp 66-67 ℃
[比旋光度]:[α]$_D^{25}$ +38 (c, 2.1 in $CHCl_3$)

----------文献----------


Itokawa, H. et al., Chem. Pharm. Bull., 1987, 35, 1460, (分離)
Mathela, C.S. et al., Phytochemistry, 1989, 28, 936, (分離, 結晶構造)
Su, W.-C. et al., Phytochemistry, 1995, 39, 603, (分離, H-NMR, C13-NMR)


**§ 3-Eudesmene-1,11-diol; 1 β-form**

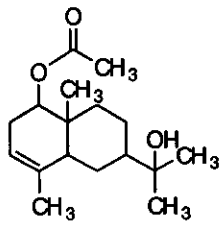


[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]
[基原]*Cryptomeria japonica*
[性状]針状結晶($CHCl_3$/hexane)
[融点]Mp 144-145 ℃
[比旋光度]:[α]$_D^{25}$ -4 (c, 1.4 in $CHCl_3$)

----------文献----------


Su, W.-C. et al., Phytochemistry, 1995, 39, 603, (分離, H-NMR, C13-NMR)


**§ 3-Eudesmene-1,11-diol; 1 β-form, 1-Ac**



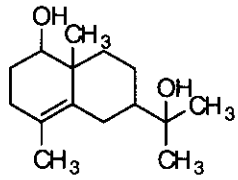
[化学名・別名]1 β-Acetoxy-3-eudesmen-11-ol
[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]
[分子式]$C_{17}H_{28}O_3$
[分子量]280.406
[正確な分子量]280.203845
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{28}$ +15.5 (c, 1.1 in $CHCl_3$)

----------文献----------


Su, W.-C. et al., Phytochemistry, 1995, 39, 603, (分離, H-NMR, C13-NMR)


**§ 4-Eudesmene-1,11-diol; (1 β,7 α)-form**

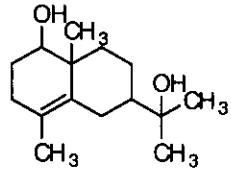
[CAS No.]166021-07-4
[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{25}$ -15 (c, 0.2 in $CHCl_3$)



----------文献----------

Su, W.-C. et al., Phytochemistry, 1995, 39, 603, (分離, H-NMR, C13-NMR)

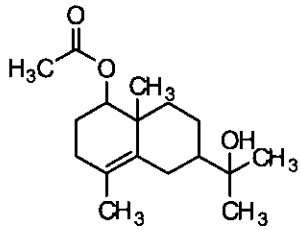
**§ 4-Eudesmene-1,11-diol; (1 β,7 β)-form**
[CAS No.]88494-81-9
[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]
[基原]*Cryptomeria japonica*
[性状]結晶($CH_2Cl_2$/hexane)
[融点]Mp 137-138 ℃
[比旋光度]:[α]$_D^{15}$ +61 (c, 5 in $CHCl_3$)



----------文献----------

Su, W.-C. et al., Phytochemistry, 1995, 39, 603, (分離, H-NMR, C13-NMR)

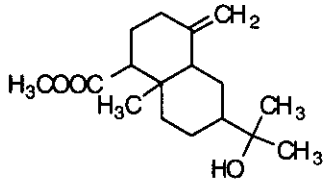
**§ 4-Eudesmene-1,11-diol; (1 β,7 β)-form, 1-Ac**
[化学名・別名]1 β-Acetoxy-4-eudesmen-11-ol
[CAS No.]165816-63-7
[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]
[分子式]$C_{17}H_{28}O_3$
[分子量]280.406
[正確な分子量]280.203845
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{25}$ +60 (c, 1 in $CHCl_3$)



----------文献----------

Su, W.-C. et al., Phytochemistry, 1995, 39, 603, (分離, H-NMR, C13-NMR)

**§ 4(15)-Eudesmene-1,11-diol; 1 β-form, 1-Ac**
[化学名・別名]1 β-Acetoxy-4(15)-eudesmen-11-ol
[CAS No.]165816-64-8
[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]
[分子式]$C_{17}H_{28}O_3$
[分子量]280.406
[正確な分子量]280.203845
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:[α]$_D^{30}$ +29 (c, 2.2 in $CHCl_3$)



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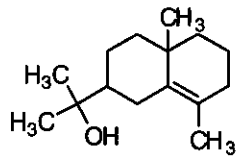
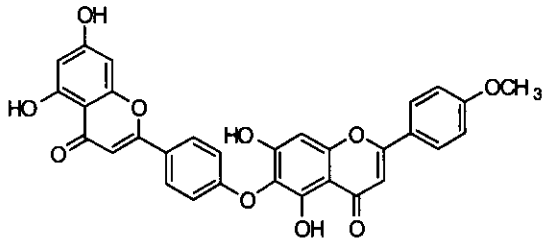
Cordano, G. et al., J. Indian Chem. Soc., 1978, 55, 1148, (分離)
Adinarayana, D. et al., Phytochemistry, 1982, 21, 1083
Anglea, T.A. et al., Tetrahedron, 1987, 43, 5537, (合成法)
Uchiyama, T. et al., Phytochemistry, 1991, 30, 655, (Plucheoside E)
Su, W.-C. et al., Phytochemistry, 1995, 39, 603, (1-Ac)

**§ 4-Eudesmen-11-ol; 7 α-form**
[化学名・別名]7-Epi-γ-eudesmol
[CAS No.]117066-77-0

[化合物分類]テルペノイド(Simple eudesmane sesquiterpenoid)
[構造式]

[基原]*Cryptomeria japonica*, *Olearia phlogopappa*
[性状]オイル
[比旋光度]:[α]$_D^{25}$ -45 (c, 2 in $CHCl_3$)

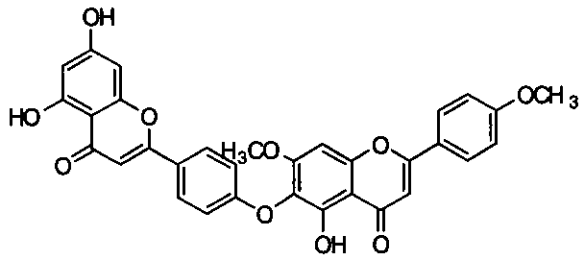
----------文献----------


Bates, R.B. et al., Chem. Ind. (London), 1962, 1759, (分離, 構造決定)
Marshall, J.A. et al., Tet. Lett., 1966, 4989, (合成法)
Minnaard, A.J. et al., Tetrahedron, 1994, 50, 4755, (合成法)
Su, W.-C. et al., Phytochemistry, 1995, 39, 603, (7-Epi-γ-eudesmol)
Barrero, A.F. et al., J. Nat. Prod., 1997, 60, 1026, (配糖体)
Raharivelomanana, P. et al., Phytochemistry, 1998, 47, 1085, (7-Epi-γ-eudesmol, H-NMR, C13-NMR, Mas)


**§ Hinokiflavone; 4'''-Me ether**
[化学名・別名]Cryptomerin A
[CAS No.]22012-97-1
[化合物分類]フラボノイド(Biflavonoid and polyflavonoid)
[構造式]

[分子式]$C_{31}H_{20}O_{10}$
[分子量]552.493
[正確な分子量]552.10565
[基原]*Cryptomeria japonica* の葉
[性状]黄色のプリズム結晶 (MeOH/Py)
[融点]Mp 308-310 ℃で分解

----------文献----------

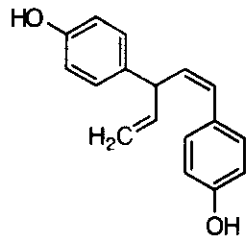

Voirin, B. et al., C. R. Hebd. Seances Acad. Sci. Ser. D, 1966, 262, 707, (分離)
Miura, H. et al., Chem. Pharm. Bull., 1966, 14, 1404; 1968, 16, 1838, (誘導体)
Miura, H. et al., Tet. Lett., 1968, 2339, (誘導体)
Silva, G.L. et al., Phytochemistry, 1995, 40, 129, (Dihydroisocryptomerin)
Rani, M.S. et al., Phytochemistry, 1998, 47, 319, (Tetrahydrohinokiflavone)
Meurer-Grimes, B. et al., Z. Naturforsch., C, 1999, 54, 1143, (Chamaecyparin)
Jayaprakasam, B. et al., Phytochemistry, 2000, 53, 515, (Tetrahydrodimethylhinokiflavone)


**§ Hinokiflavone; 4''',7''-Di-Me ether**
[化学名・別名]Cryptomerin B
[CAS No.]22012-98-2
[化合物分類]フラボノイド(Biflavonoid and polyflavonoid)
[構造式]

[分子式]$C_{32}H_{22}O_{10}$
[分子量]566.52
[正確な分子量]566.1213
[基原]*Cryptomeria japonica*
[用途]黄色のプリズム結晶 (Py)
[融点]Mp 302-303 ℃で分解

----------文献----------


Voirin, B. et al., C. R. Hebd. Seances Acad. Sci. Ser. D, 1966, 262, 707, (分離)
Miura, H. et al., Chem. Pharm. Bull., 1966, 14, 1404; 1968, 16, 1838, (誘導体)
Miura, H. et al., Tet. Lett., 1968, 2339, (誘導体)
Gadek, P.A. et al., Phytochemistry, 1982, 21, 889; 1985, 24, 267, (生育)
Silva, G.L. et al., Phytochemistry, 1995, 40, 129, (Dihydroisocryptomerin)
Rani, M.S. et al., Phytochemistry, 1998, 47, 319, (Tetrahydrohinokiflavone)
Meurer-Grimes, B. et al., Z. Naturforsch., C, 1999, 54, 1143, (Chamaecyparin)
Jayaprakasam, B. et al., Phytochemistry, 2000, 53, 515, (Tetrahydrodimethylhinokiflavone)

**§ Hinokiresinol; ()-(Z)-form**

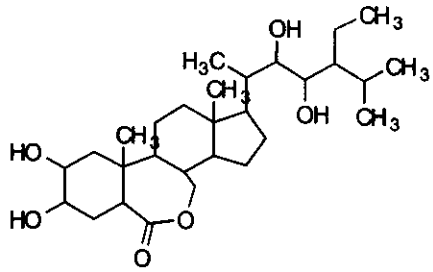


[CAS No.]96895-25-9
[化合物分類]リグナン化合物(Norlignan)
[構造式]
[基原]*Chamaecyparis obtusa* の木部, *Cryptomeria japonica*, *Hypoxis* spp.
[用途]強いオエストゲン受容体結合活性を示す
[融点]Mp 102-103 ℃

----------文献----------


Hirose, Y. et al., Tet. Lett., 1965, 3665, (分離, 構造決定, UV, IR, H-NMR, Mas)
Enzell, C.R. et al., Tet. Lett., 1967, 793; 2211, (絶対構造, Mas)
Minami, E. et al., Chem. Pharm. Bull., 2000, 48, 389, (絶対構造, 成書)
Su, B.-N. et al., Phytochemistry, 2000, 53, 1103, (構造決定, 4'-*O*-Methylhinokiresinol)


**§ 28-Homobrassinolide; 23-Epimer**

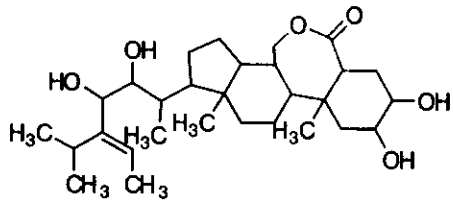


[CAS No.]82373-95-3
[化合物分類]ステロイド(Stigmastane steroid). (C29)
[構造式]
[分子式]$C_{29}H_{50}O_6$
[分子量]494.71
[正確な分子量]494.36074
[基原]*Cryptomeria japonica*
[性状]結晶(EtOAc/hexane)
[融点]Mp 195-196 ℃

----------文献----------


Hazra, B.G. et al., Liebigs Ann./Recl., 1997, 1029, (合成法, 成書)
Yokota, T. et al., Biosci., Biotechnol., Biochem., 1998, 62, 526, (stereoisomer)


**§ Homodolicholide; Stereoisomer**



[化合物分類]ステロイド(Stigmastane steroid). (C29)
[構造式]

[分子式]$C_{29}H_{48}O_6$
[分子量]492.695
[正確な分子量]492.34509
[基原]*Cryptomeria japonica*

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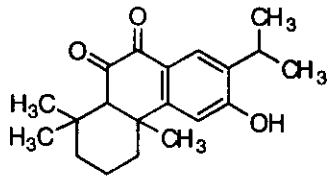
Sakakibara, M. et al., Agric. Biol. Chem., 1983, 47, 1407, (合成法)
Yokota, T. et al., Agric. Biol. Chem., 1983, 47, 1409, (分離, 構造決定)
Mori, K. et al., Tetrahedron, 1984, 40, 1767, (合成法)
Yokota, T. et al., Biosci., Biotechnol., Biochem., 1998, 62, 526, (stereoisomer)


**§ 12-Hydroxy-8,11,13-abietatriene-6,7-dione; 5 β -form**



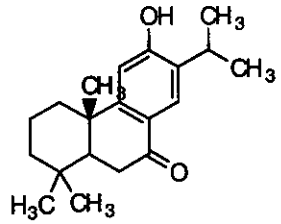
[化学名・別名]Xanthoperol
[CAS No.]564-23-8
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]
[基原]*Juniperus communis* とその他の木部, 例えば, *Podocarpus dacrydioides*, *Cryptomeria japonica*
[性状]黄色の結晶($C_6H_6$)
[融点]Mp 255-270 ℃で分解
[比旋光度]:$[\alpha]_D^{20}$ +132.5 (c, 1.2 in EtOH)

----------文献----------


Brendenberg, J.B. et al., Acta Chem. Scand., 1956, 10, 1511, (分離)
Kondo, Y. et al., Chem. Pharm. Bull., 1963, 11, 678, (構造決定)

Ulubelen, A. et al., J. Nat. Prod., 1988, 51, 1178, (分離, H-NMR, C13-NMR)
Ghosal, M. et al., Indian J. Chem., Sect. B, 1992, 31, 524, (合成法)

**§ 12-Hydroxy-8,11,13-abietatrien-7-one**

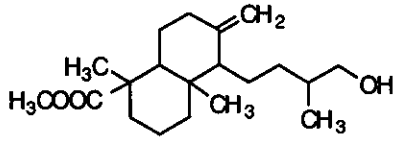


[化学名・別名]Sugiol. Isomicropinic acid. 7-Oxoferruginol
[CAS No.]511-05-7
[化合物分類]テルペノイド(Abietane diterpenoid)
[構造式]
[分子式]$C_{20}H_{28}O_2$
[分子量]300.44
[正確な分子量]300.20893
[基原]*Cryptomeria japonica*, *Dacrydium cupressinum*, *Juniperus communis*, *Salvia miltiorrhiza*
[性状]結晶(AcOH)
[融点]Mp 295-297 ℃
[比旋光度]:$[\alpha]_D^{20}$ +22.6 (c, 1.2 in dioxan)

----------文献----------

Meyer, W.L. et al., J.O.C., 1975, 40, 3686, (合成法, 成書)
Matsumoto, T. et al., Bull. Chem. Soc. Jpn., 1977, 50, 1575, (成書)
Gao, J. et al., Phytochemistry, 1997, 44, 759, (Sugiol, C13-NMR)

**§ 14-Hydroxy-15-nor-8(17)-labden-19-oic acid; (13)-form, Me ester**

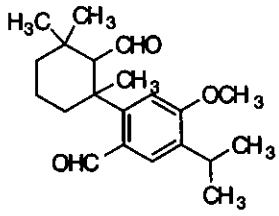


[CAS No.]159692-55-4
[化合物分類]テルペノイド(Norlabdane diterpenoid)
[構造式]
[分子式]$C_{20}H_{34}O_3$
[分子量]322.487
[正確な分子量]322.250795
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:$[\alpha]_D^{20}$ +50.5 (c, 2.6 in $CHCl_3$)

----------文献----------

Su, W.-C. et al., Phytochemistry, 1994, 37, 1109, (分離, H-NMR, C13-NMR)

**§ 12-Hydroxy-6,7-seco-8,11,13-abietatriene-6,7-dial; Me ether**

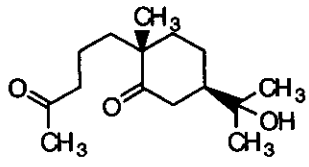


[化学名・別名]12-Methoxy-6,7-seco-8,11,13-abietatriene-6,7-dial
[化合物分類]テルペノイド(Secoabietane and secofriedoabietane diterpenoid)
[構造式]
[分子式]$C_{21}H_{30}O_3$
[分子量]330.466
[正確な分子量]330.219495
[基原]*Cryptomeria japonica*
[性状]オイル
[比旋光度]:$[\alpha]_D^{25}$ +51 (c, 1 in $CHCl_3$)

----------文献----------

Yanagawa, T. et al., CA, 1970, 73, 25689b, (分離, 構造決定, 合成法)
Fang, J.-M. et al., J. Chem. Res., Synop., 1986, 350, (分離)
Su, W.-C. et al., Phytochemistry, 1994, 35, 1279, (分離, C13-NMR)

**§ 11-Hydroxy-4,5-secoeudesmane-4,5-dione**



[CAS No.]119765-86-5
[化合物分類]テルペノイド(Secoeudesmane sesquiterpenoid)
[構造式]
[分子式]$C_{15}H_{26}O_3$
[分子量]314.424
[正確な分子量]314.188195