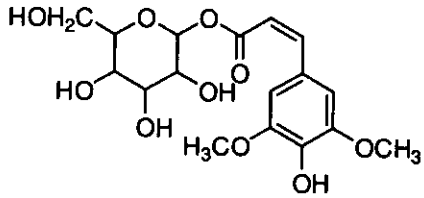
§ 2-Amino-3,4-dihydroxypentanedioic acid
[化学名・別名]3,4-Dihydroxyglutamic acid
[化合物分類]アミノ酸とペプチド(Non-protein α-aminoacids)
[構造式]$HOOCCH(OH)CH(OH)CH(NH_2)COOH$
[分子式]$C_5H_9NO_6$
[分子量]179.129
[基原]次の植物から分離: *Lepidium sativum*, *Rheum rhaponticum*
[その他のデータ]The (2*S*,3*S*,4*S*)-stereoisomer has been synthesised, but the abs. config. of the natural product is currently (1999) unknown

----------文 献----------

Virtanen, A.I. et al., Acta Chem. Scand., 1957, 11, 182, (分離)
Mueller, A.L. et al., Acta Chem. Scand., 1965, 19, 1987, (分離)

§ 1-*O*-*p*-Coumaroylglucose; β-D-form, 3',5'-Dimethoxy
[化学名・別名]1-Sinapoylglucose
[化合物分類]単環芳香族(Simple phenylpropanoids), 炭水化物(gluco-Hexoses)
[構造式]

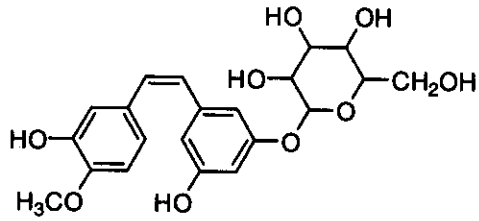


[分子式]$C_{17}H_{22}O_{10}$
[分子量]386.355
[基原]ルバーブ(*Rheum rhaponticum*), キャベツ(*Brassica aleracea*)

----------文 献----------

Litvinenko, V.I. et al., Planta Med., 1975, 27, 372, (レビュー, Feruloylglucose)
Imperato, F. et al., Phytochemistry, 1976, 15, 1786, (分離, glucosylcaffeoylglucose)
Herrmann, K., Prog. Chem. Org. Nat. Prod., 1978, 35, 73, (レビュー)

§ 1-(3,4-Dihydroxyphenyl)-2-(3,5-dihydroxyphenyl) ethylene; (*E*)-form, 4'-Me ether, 3''-*O*-β-D-glucopyranoside
[化学名・別名]Rhapontin. Rhaponticin. Ponticin
[CAS No.]155-58-8
[化合物分類]単環芳香族(Stilbenes)
[構造式]

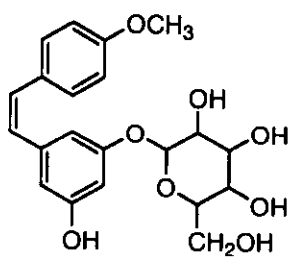


[分子式]$C_{21}H_{24}O_9$
[分子量]420.415
[基原]次の植物から分離: *Rheum rhaponticum* の種子, *Rheum emodi*, *Eucalyptus sideroxylon*
[融点]Mp 236-237 ℃で分解
[比旋光度]:$[\alpha]_D^{32}$ -59.5 (Me_2CO)
[販売元]Aldrich:23052-9; Rare Chemicals Library:S41004-7; Sigma:R7753

----------文 献----------

Banks, H.J. et al., Aust. J. Chem., 1971, 24, 2427-2430, (Rhapontin)
Aburjai, T.A., Phytochemistry, 2000, 55, 407-410, (Rhapontin)

§ 1-(3,5-Dihydroxyphenyl)-2-(4-hydroxyphenyl) ethylene; (*E*)-form, 4'-Me ether, 3-*O*-β-D-glucopyranoside
[化合物分類]単環芳香族(Stilbenes)
[構造式]



[分子式]$C_{21}H_{24}O_8$
[分子量]404.416
[基原]*Rheum rhaponticum*
[性状]結晶 (EtOH 溶液)
[融点]Mp 226-228 ℃
UV: [neutral] λ_{max} 307 (ε 31000); 320 (ε 30700) (MeOH)

----------文 献----------

Kumar, N. et al., Phytochemistry, 1974, 13, 633, (分離)
Ingham, J.L. et al., Phytochemistry, 1976, 15, 1791, (分離, UV, Mass)
Aritomi, M. et al., Phytochemistry, 1976, 15, 2006, (分離, UV)
Nonaka, G.-I. et al., Chem. Pharm. Bull., 1977, 25, 2300, (分離, UV, IR, H-NMR, 誘導体)
Langcake, P. et al., Phytochemistry, 1977, 16, 1193, (生合成)
Nakajima, K. et al., Chem. Pharm. Bull., 1978, 26, 3050, (分離, IR, UV, H-NMR)
Sotheeswaran, S. et al., Phytochemistry, 1993, 32, 1083, (レビュー, 成書)

§§タデ科カラダイオウ(*Rheum undulatum* Linne)の葉柄または根。

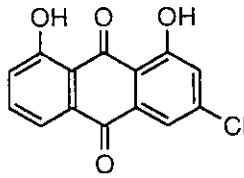
§ 1,8-Dihydroxy-3-hydroxymethylanthraquinone(旧 CAS 名)

[化学名・別名]1,8-Dihydroxy-3-hydroxymethyl-9,10-anthracenedione(CAS 名). 3-(Hydroxymethyl) chrysazin. Aloe emodin. Rottlerin ‡

[CAS No.]481-72-1

[化合物分類]WE1500, 多環芳香族(9,10-Anthraquinones; 2 × O-置換基), 薬物: 抗腫瘍薬(Antineoplastic agents), 薬物: 消毒薬(Antiseptics)

[構造式]



[分子式]$C_{15}H_{10}O_5$

[分子量]270.241

[基原]アロエ, また cascara sagrada *Rhamnus purshiana* の樹皮, *Rhamnus* *alate*
rnus, 中国ダイオウ *Rheum palmatum*, *Rheum undulatum*; *Rumex orientalis*, *Cassi*
a alata の葉と果実. また *Asphodelus microcarpus*, *Asphodelus fistulosus*, *Xant*
horrhoea australis, *Oroxylum indicum* からも得られる

[用途]いくつかの抗白血病活性を示す. Starting material for synth. of anthracycline antibiotics. しゃ下剤, 消毒薬

[性状]橙色の針状結晶 (toluene)

[融点]Mp 221-223 ℃

[PKa 値]p*K*. 10.17 (25 ℃, H_2O)

[Log P 計算値]Log P 0.88 (計算値)

[化学物質毒性データ総覧(RTECS)登録番号]CB6712200

[販売元]Sigma:A7687

----------文献----------

Tutin, F. et al., J.C.S., 1911, 99, 946, (分離)
Okabe, H. et al., Chem. Pharm. Bull., 1973, 21, 1254, (分離, 配糖体)
Fairbairn, J.W., Pharmacology, 1976, 14, 1, (suppl, レビュー)
DMU600

***RTECS (化学物質毒性データ) ***

生体影響物質 : 変異原性物質.

健康障害に関するデータ

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 : 100 ug/plate

参照文献

Biochemical Society Transactions.(Biochemical Soc. Book Depot, POB 32, Commerce Way, Colchester, Essex CO2 8HP, UK) 5,1489,1977

〈〈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

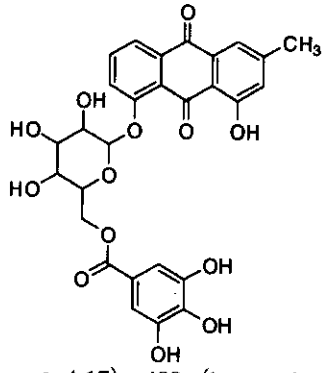
参照文献

Mutation Research.(Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) 367,123,1996

〈〈試験方法〉〉 不定期 DNA 合成.
試験系 : げっ歯類-ラット肝臓.
投与量・期間 : 10 mg/L

§ 1,8-Dihydroxy-3-methylanthraquinone; 8-*O*-[3,4,5-Trihydroxybenzoyl-(→ 6)-β-D-glucopyranoside]

§ 1,8-Dihydroxy-3-methylanthraquinone; 8-*O*-[3,4,5-Trihydroxybenzoyl-(→ 6)-β-D-glucopyranoside]
[化学名・別名]Chrysophanol 8-(6-galloylglucoside)
[化合物分類]多環芳香族(9,10-Anthraquinones; 2 × O-置換基)
[構造式]

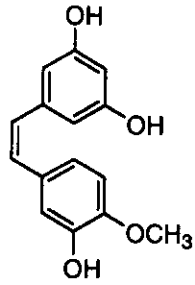


[分子式]$C_{28}H_{24}O_{13}$
[分子量]568.49
[基原]*Rheum undulatum* の根茎
[性状]黄色の針状結晶 (MeOH)
[融点]Mp 207-210 ℃
[比旋光度]:$[\alpha]_D^{25}$ +95 (c, 0.1 in MeOH)
UV: [neutral] λ_{max} 220 (log ε 4.58); 260 (log ε 4.32); 284 (sh)(log ε 4.17); 409 (log ε 3.79) (MeOH)

----------文 献----------

Hoerhammer, L. et al., Chem. Ber., 1965, 98, 2859; 1966, 99, 2471, (Chrysophanein)
Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhäuser Verlag, Basel, 1972, no. 1254, (生育)
Kelly, T.R. et al., J.O.C., 1983, 48, 3573, (分離)
Thomson, W.H., Naturally Occurring Quinones, Recent Advances, Chapman and Hall, 1987, (生育)
Sassa, T. et al., Agric. Biol. Chem., 1991, 55, 95, (分離)
Kubo, I. et al., Phytochemistry, 1992, 31, 1063, (Chrysophanein, Pulmatin)
Yang, X. et al., CA, 1998, 129, 313336b, (8-(6-malonylglucoside))
Matsuda, H. et al., Bioorg. Med. Chem., 2001, 9, 41-50, (8-6-galloylglucoside)

§ 1-(3,4-Dihydroxyphenyl)-2-(3,5-dihydroxyphenyl)ethylene; (*E*)-form, 4'-Me ether
[化学名・別名]1-(3,5-Dihydroxyphenyl)-2-(3-hydroxy-4-methoxyphenyl) ethylene. 3,3',5-Trihydroxy-4'-methoxystilbene. Rhapontigenin. Pontigenin
[CAS No.]500-65-2
[化合物分類]単環芳香族(Stilbenes)
[構造式]

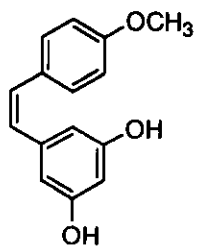


[分子式]$C_{15}H_{14}O_4$
[分子量]258.273
[基原]次の植物の根茎から分離: *Rheum undulatum*
[融点]Mp 186-187 ℃

----------文 献----------

Banks, H.J. et al., Aust. J. Chem., 1971, 24, 2427-2430, (Rhapontin)
Manners, G.D. et al., Phytochemistry, 1971, 10, 607-610, (生育, 分離, UV)
Nakajima, K. et al., Chem. Pharm. Bull., 1978, 26, 3050-3057, (分離)
Hata, K. et al., Chem. Pharm. Bull., 1979, 27, 984-989, (分離)
Steynberg, J.P. et al., J.C.S. Perkin 1, 1988, 37-41, (4'-Me ether rutinoside)
Qian, L. et al., Chin. Chem. Lett., 2000, 11, 217-218, (Isorhapontigenin, 合成法)
Aburjai, T.A., Phytochemistry, 2000, 55, 407-410, (Rhapontin)

§ 1-(3,5-Dihydroxyphenyl)-2-(4-hydroxyphenyl)ethylene; (*E*)-form, 4'-Me ether
[化学名・別名]1-(3,5-Dihydroxyphenyl)-2-(4-methoxyphenyl) ethylene. 4'-Methoxy-3,5-stilbenediol(旧 CAS 名). 3,5-Dihydroxy-4'-methoxystilbene
[CAS No.]33626-08-3
[化合物分類]単環芳香族(Stilbenes)
[構造式]



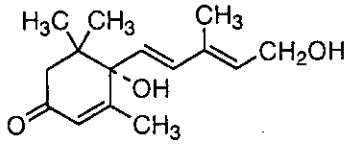
[分子式]$C_{15}H_{14}O_3$
[分子量]242.274
[基原]*Rheum undulatum*, *Rheum webbianum*

Banks. H.J. et al., Aust. J. Chem., 1971, 24, 2427, (分離, 誘導体)
Murakami, T. et al., Tet. Lett., 1972, 2965, (分離, UV)
Kumar, N. et al., Phytochemistry, 1974, 13, 633, (分離)
Ingham, J.L. et al., Phytochemistry, 1976, 15, 1791, (分離, UV, Mass)
Aritomi, M. et al., Phytochemistry, 1976, 15, 2006, (分離, UV)
Nonaka, G.-I. et al., Chem. Pharm. Bull., 1977, 25, 2300, (分離, UV, IR, H-NMR, 誘導体)
Steynberg, J.P. et al., J.C.S. Perkin 1, 1988, 37, (3,4'-di-Me ether rutinoside)
Sotheeswaran, S. et al., Phytochemistry, 1993, 32, 1083, (レビュー, 成書)

**********マルメロ (Quince) **********

§ § バラ科マルメロ(*Cydonia oblonga* Miller)の果実または種子。

§ Abscisic alcohol

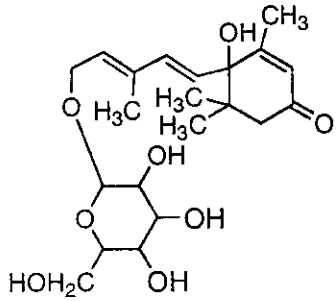


[CAS No.] 113472-20-1
[化合物分類] テルペノイド(Cyclofarnesane sesquiterpenoids)
[構造式]
[分子式] $C_{15}H_{22}O_3$
[分子量] 250.337
[基原] マルメロ(*Cydonia oblonga*)の果実

----------文献----------

Lutz, A. et al., J. Agric. Food Chem., 1992, 40, 116, (分離, H-NMR, C13-NMR)
Lutz, A. et al., Phytochemistry, 1993, 32, 57; 1994, 36, 811, (分離, H-NMR, C13-NMR, CD)

§ Abscisic alcohol; 11-*O*-β-D-Glucopyranoside



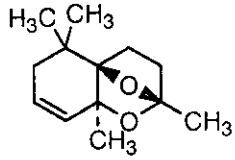
[CAS No.] 145153-00-0
[化合物分類] テルペノイド(Cyclofarnesane sesquiterpenoids)
[構造式]

[分子式] $C_{21}H_{32}O_8$
[分子量] 412.479
[基原] マルメロ(*Cydonia oblonga*)の果実

----------文献----------

Lutz, A. et al., J. Agric. Food Chem., 1992, 40, 116, (分離, H-NMR, C13-NMR)
Lutz, A. et al., Phytochemistry, 1993, 32, 57; 1994, 36, 811, (分離, H-NMR, C13-NMR, CD)

§ 5,9:6,9-Diepoxy-3-megastigmene

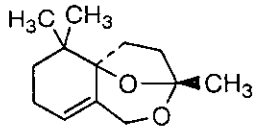


[化学名・別名] 2,2,6,8-Tetramethyl-7,11-dioxatricyclo[6.2.1.$0^{1,6}$]undec-4-ene
[化合物分類] テルペノイド(Megastigmane norterpenoids)
[構造式]
[分子式] $C_{13}H_{20}O_2$
[分子量] 208.3
[基原] マルメロの果実(*Cydonia oblonga*)のブランデー, リースリングワイン

----------文献----------

Naumlf, R. et al., Tet. Lett., 1991, 32, 753, (構造決定, 合成法)

§ 5,9:6,9-Diepoxy-4-megastigmene



[化学名・別名] 2,2,9-Trimethyl-8,12-dioxatricyclo[7.2.1.$0^{1,6}$]dodec-5-ene
[CAS No.] 133661-30-0
[化合物分類] テルペノイド(Megastigmane norterpenoids)
[構造式]
[分子式] $C_{13}H_{20}O_2$
[分子量] 208.3
[基原] マルメロの果実(*Cydonia oblonga*)のブランデー

----------文献----------

Naumlf, R. et al., Tet. Lett., 1991, 32, 753, (構造決定, 合成法)

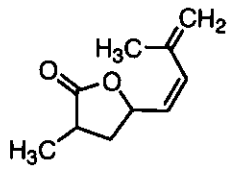
[基原]マルメロの果実(*Cydonia oblonga*)のブランデー

----------文 献----------

Naumlf, R. et al., Tet. Lett., 1991, 32, 753, (構造決定, 合成法)

§ 4,5-Dihydro-3-methyl-5-(3-methyl-1,3-butadienyl)-2(3*H*)-furanone; (2*R*,4*S*)-form

[化学名・別名]Marmelolactone A
[CAS No.]74133-35-0
[化合物分類]テルペノイド(Irregular acyclic monoterpenoids)
[構造式]



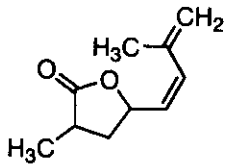
[分子式]$C_{10}H_{14}O_2$
[分子量]166.219
[基原]Contributes to 熟したマルメロの果実(*Cydonia oblonga*)の香り
[性状]シロップ
[比旋光度]:$[\alpha]_D^{23}$ +93.6 (c, 0.09 in MeOH)

----------文 献----------

Tsuneya, T. et al., Agric. Biol. Chem., 1980, 44, 957, (分離)
Ishihara, M. et al., Agric. Biol. Chem., 1983, 47, 2121, (絶対構造)
Nishida, Y. et al., Agric. Biol. Chem., 1983, 47, 2123; 1986, 50, 191; 813; 1665, (合成法, C13-NMR, CD)
Escher, S. et al., Helv. Chim. Acta, 1991, 74, 179

§ 4,5-Dihydro-3-methyl-5-(3-methyl-1,3-butadienyl)-2(3*H*)-furanone; (2*R*,4*R*)-form

[化学名・別名]Marmelolactone B
[CAS No.]74183-60-1
[化合物分類]テルペノイド(Irregular acyclic monoterpenoids)
[構造式]



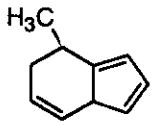
[分子式]$C_{10}H_{14}O_2$
[分子量]166.219
[基原]*Cydonia oblonga*
[性状]シロップ
[比旋光度]:$[\alpha]_D^{23}$ +21.8 (c, 0.11 in MeOH)

----------文 献----------

Tsuneya, T. et al., Agric. Biol. Chem., 1980, 44, 957, (分離)
Ishihara, M. et al., Agric. Biol. Chem., 1983, 47, 2121, (絶対構造)
Nishida, Y. et al., Agric. Biol. Chem., 1983, 47, 2123; 1986, 50, 191; 813; 1665, (合成法, C13-NMR, CD)

§ 5,7*a*-Dihydro-1,4,4,7*a*-tetramethyl-4*H*-indene(CAS 名)

[化学名・別名]2,2,6,7-Tetramethylbicyclo[4.3.0]nona-1(9),4,7-triene
[CAS No.]99901-21-0
[化合物分類]テルペノイド(Miscellaneous bicyclic sesquiterpenoids)
[構造式]



[分子式]$C_{13}H_{18}$
[分子量]174.285
[天然基原マルメロの果実の香り(*Cydonia oblonga*)
[性状]オイル

----------文 献----------

Ishihara, M. et al., J.O.C., 1986, 51, 491

§ 2,7-Dimethyl-2,4-octadiene-1,8-diol; (2*E*,4*E*,7*R*)-form, 8-*O*-β-D-Glucopyranoside

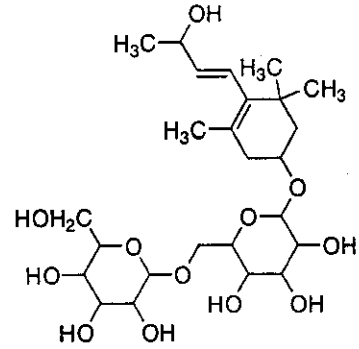
[化合物分類]テルペノイド(Irregular acyclic monoterpenoids)
[構造式]
[分子式]$C_{16}H_{28}O_7$
[分子量]332.393
[基原]マルメロの果実(*Cydonia oblonga*)
[性状]粘りけのある黄色のオイル
[比旋光度]:$[\alpha]_D^{23}$ -15.5 (c, 0.31 in MeOH)

----------文 献----------

§ 5,7-Megastigmadiene-3,9-diol; (3ξ,7*E*,9ξ)-form, 3-*O*-[β-D-Glucopyranosyl-(1→6)-β-D-glucopyranoside]

[化合物分類]テルペノイド(Megastigmane norterpenoids)

[構造式]



[分子式]$C_{25}H_{42}O_{12}$

[分子量]534.6

[基原]*Cydonia oblonga*

----------文献----------

Winterhalter, P. et al., Phytochemistry, 1991, 30, 3021, (分離, H-NMR, C13-NMR)
Tamaki, A. et al., J. Nat. Prod., 1999, 62, 1074-1076, (Platanionoside B)

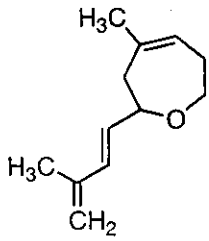
§ Quinceoxepine

[化学名・別名]2,3,6,7-Tetrahydro-4-methyl-2-(3-methyl-1,3-butadienyl)oxepin

[CAS No.]132925-10-1

[化合物分類]テルペノイド(Irregular acyclic sesquiterpenoids)

[構造式]



[分子式]$C_{13}H_{18}O$

[分子量]178.274

[基原]マルメロの果実(*Cydonia oblonga*)

[性状]オイル

[沸点]Bp_{11} 110-120 ℃

----------文献----------

Escher, S. et al., Helv. Chim. Acta, 1991, 74, 179, (分離, H-NMR, C13-NMR, 合成法)

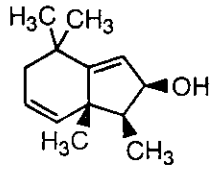
§ 2,4,5,7*a*-Tetrahydro-1,4,4,7*a*-tetramethyl-1*H*-inden-2-ol(CAS 名)

[化学名・別名]2,2,6,7-Tetramethylbicyclo[4.3.0]nona-1(9),4-dien-8-ol

[CAS No.]99901-23-2

[化合物分類]テルペノイド(Miscellaneous bicyclic sesquiterpenoids)

[構造式]



[分子式]$C_{13}H_{20}O$

[分子量]192.3

[基原]マルメロの果実の香り(*Cydonia oblonga*)

[性状]オイル

[比旋光度]:$[\alpha]_D^{26}$ -40 (c, 0.67 in MeOH)

----------文献----------

Ishihara, M. et al., J.O.C., 1986, 51, 491

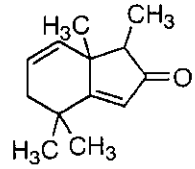
§ 2,4,5,7*a*-Tetrahydro-1,4,4,7*a*-tetramethyl-1*H*-inden-2-ol; 8-Ketone

[化学名・別名]1,4,5,7*a*-Tetrahydro-1,4,4,7*a*-tetramethyl-2*H*-inden-2-one(CAS 名), 2,2,6,7-Tetramethylbicyclo[4.3.0]nona-1(9),4-dien-8-one

[CAS No.]99901-22-1

[化合物分類]テルペノイド(Miscellaneous bicyclic sesquiterpenoids)

[構造式]



[分子式]$C_{13}H_{18}O$

[分子量]190.285

[基原]*Cydonia oblonga*

[性状]オイル

[比旋光度]:$[\alpha]_D^{26}$ +11 (c, 0.2 in MeOH)

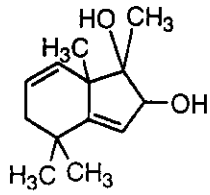
----------文献----------

Ishihara, M. et al., J.O.C., 1986, 51, 491

§ 2,4,5,7*a*-Tetrahydro-1,4,4,7*a*-tetramethyl-1*H*-inden-2-ol; 7α-Hydroxy

Ishihara, M. et al., J.O.C., 1986, 51, 491

§ 2,4,5,7*a*-Tetrahydro-1,4,4,7*a*-tetramethyl-1*H*-inden-2-ol; 7 α-Hydroxy
[化学名・別名] 2,4,5,7*a*-Tetrahydro-1,4,4,7*a*-tetramethyl-1*H*-indene-1,2-diol(CAS名).
2,2,6,7-Tetramethylbicyclo[4.3.0]nona-1(9),4-diene-7,8-diol
[CAS No.]99901-24-3
[化合物分類]テルペノイド(Miscellaneous bicyclic sesquiterpenoids)
[構造式]



[分子式]$C_{13}H_{20}O_2$
[分子量]208.3
[基原]*Cydonia oblonga*
[性状]オイル
[比旋光度]:$[\alpha]_D^{26}$ -6 (c, 0.35 in MeOH)

----------文献----------

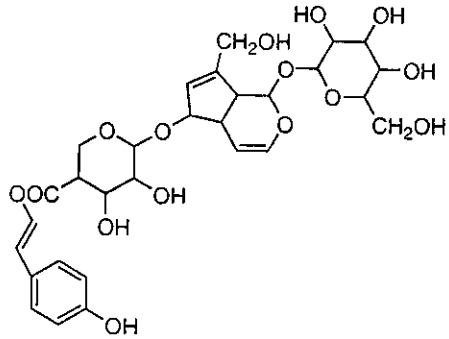
Ishihara, M. et al., J.O.C., 1986, 51, 491

***********マレイン (Mullein) ***********

§§ゴマノハグサ科ビロードモウズイカ(*Verbascum thaspsus* L.)の花または全草。
本調査研究では、成分に関する文献はなかった。

§§ゴマノハグサ科(*Verbascum phlomoides* L.)の花または全草。

§ Aucubigenin; 1-*O*-β-D-Glucopyranoside, 6-*O*-[4-hydroxycinnamoyl-(→4)-β-D-xylopyranoside]
[化学名・別名]Phlomoidoside
[化合物分類]テルペノイド(Iridoid monoterpenoids)
[構造式]

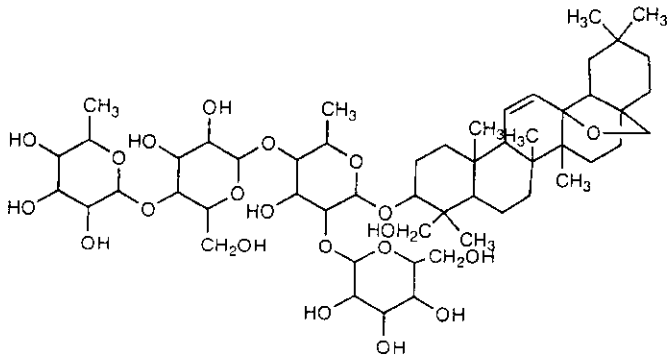


[分子式]$C_{29}H_{36}O_{15}$
[分子量]624.594
[基原]*Verbascum phlomoides*

----------文献----------

Klimek, B. et al., Phytochemistry, 1996, 43, 1281, (Phlomoidoside)

§ 13,28-Epoxy-11-oleanene-3,23-diol; (3β,13β)-form, 3-*O*-[α-L-Rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→4)-[β-D-glucopyranosyl-(1→2)]-β-D-fucopyranoside]
[化学名・別名]Verbascosaponin
[CAS No.]74163-66-9
[化合物分類]テルペノイド(Oleanane triterpenoids)
[構造式]



[分子式]$C_{54}H_{88}O_{23}$
[分子量]1073.277
[基原]次の植物のサポニン: *Verbascum phlomoides*
[融点]Mp 263-268 ℃

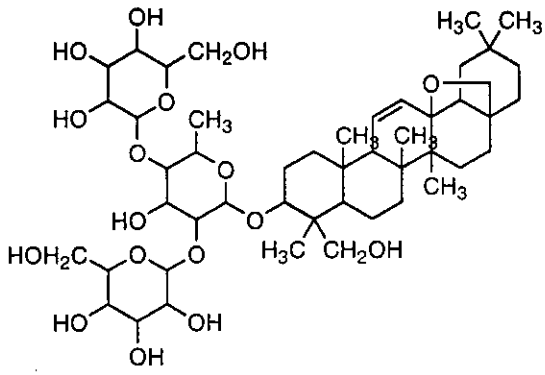
----------文献----------

Tschesche, R. et al., Chem. Ber., 1980, 113, 1754, (分離, C13-NMR, 構造決定)

Bhandori, S.P.S. et al., Phytochemistry, 1996, 41, 879, (Scrokoelziside A)
Klimek, B. et al., Phytochemistry, 1996, 43, 1281, (分離, H-NMR, C13-NMR)

§ 13,28-Epoxy-11-oleanene-3,23-diol; (3 β ,13 β) -form, 3-*O*-[β -D-Glucopyranosyl-(1 → 4) -[β -D-glucopyranosyl(1 → 2)] - β -D-fucopyranoside]

[化学名・別名]Derhamnoverbascosaponin, Desrhamnoverbascosaponin
[化合物分類]テルペノイド(Oleanane triterpenoids)
[構造式]

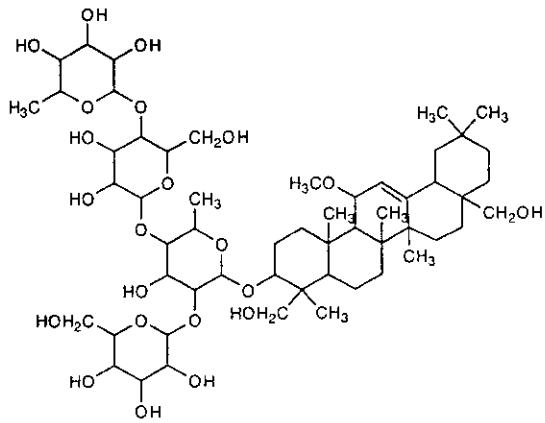


[分子式]$C_{48}H_{78}O_{17}$
[分子量]927.134
[基原]*Verbascum phlomoides*
[性状]結晶
[融点]Mp 226-230 ℃

文献
Tschesche, R. et al., Chem. Ber., 1980, 113, 1754, (分離, C13-NMR, 構造決定)
Ding, N. et al., Chem. Pharm. Bull., 1992, 40, 780, (Mimengoside A)
Schroumlder, H. et al., Annalen, 1993, 413, (分離, H-NMR, C13-NMR)
Yamamoto, A. et al., Chem. Pharm. Bull., 1993, 41, 1780, (Scrophulasaponins)
Bhandori, S.P.S. et al., Phytochemistry, 1996, 41, 879, (Scrokoelziside A)
Klimek, B. et al., Phytochemistry, 1996, 43, 1281, (分離, H-NMR, C13-NMR)

§ 12-Oleanene-3,11,23,28-tetrol; (3 β ,11 ξ)-form, 11-Me ether, 3-*O*-[α -L-rhamnopyranosyl-(1 → 4)- β -D-glucopyranosyl-(1 → 3)-[β -D-glucopyranosyl-(1 → 2)]- β -D-fucopyranoside]

[化学名・別名]Verbascosaponin A
[CAS No.]151283-37-3
[化合物分類]テルペノイド(Oleanane triterpenoids)
[構造式]

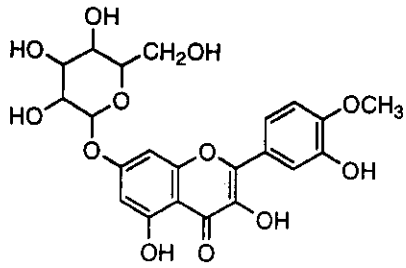


[分子式]$C_{55}H_{92}O_{22}$
[分子量]1105.319
[基原]*Verbascum phlomoides*
[その他のデータ]Possible artifact

文献
Ding, N. et al., Chem. Pharm. Bull., 1992, 40, 780, (Mimenogoside B)
Schröder, H. et al., Annalen, 1993, 413, (分離, H-NMR, C13-NMR)
Yamamoto, A. et al., Chem. Pharm. Bull., 1993, 41, 1780, (Scrophulasaponin Ia)

Schröder, H. et al., Annalen. 1993, 413, (分離, H-NMR, C13-NMR)
Yamamoto, A. et al., Chem. Pharm. Bull., 1993, 41, 1780, (Scrophulasaponin Ia)

§ 3,3',5,7-Tetrahydroxy-4'-methoxyflavone; 7-*O*-β-D-Glucopyranoside

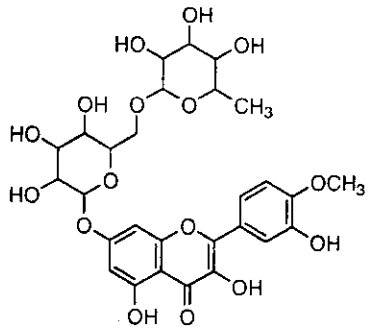


[CAS No.]16290-09-8
[化合物分類]フラボノイド(Flavonols; 5 × O-置換基)
[構造式]

[分子式]$C_{22}H_{22}O_{12}$
[分子量]478.409
[基原]次の植物から分離: *Verbascum phlomoides*
[融点]Mp 287 ℃

文 献
Bahl, C.P. et al., Indian J. Chem., 1967, 5, 171-172, (Tamarixetin)
Tschesche, R. et al., Phytochemistry, 1979, 18, 1248-1249, (7-glucoside, 7-rutinoside)
Norbedo, C. et al., Phytochemistry, 1984, 23, 2698-2708, (分離)
McCormick, S. et al., Phytochemistry, 1985, 24, 2133, (分離)

§ 3,3',5,7-Tetrahydroxy-4'-methoxyflavone; 7-*O*-[α-L-Rhamnopyranosyl-(1→6)-β-D-galactopyranoside]

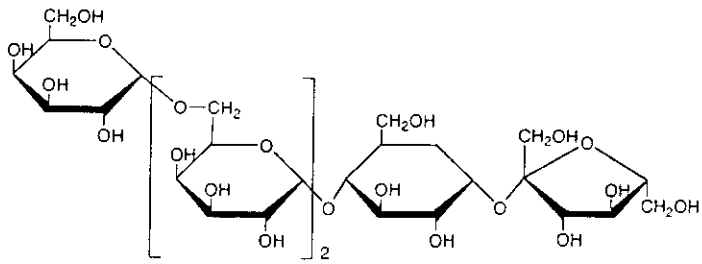


[化学名・別名]Tamarixetin 7-rutinoside
[CAS No.]14265-53-3
[化合物分類]フラボノイド(Flavonols; 5 × O-置換基)
[構造式]
[分子式]$C_{28}H_{32}O_{16}$
[分子量]624.551
[基原]次の植物から分離: *Verbascum phlomoides*
[性状]結晶・一水和物
[融点]Mp 293-295 ℃ (288 ℃)
[比旋光度]:[α]$_D$ -93 (Py)

文 献
Bahl, C.P. et al., Indian J. Chem., 1967, 5, 171-172, (Tamarixetin)
Tschesche, R. et al., Phytochemistry, 1979, 18, 1248-1249, (7-glucoside, 7-rutinoside)
Gunasegaran, R. et al., Indian J. Chem., Sect. B, 1981, 20, 832-833, (Thevefolin, 成書)
Norbedo, C. et al., Phytochemistry, 1984, 23, 2698-2708, (分離)
McCormick, S. et al., Phytochemistry, 1985, 24, 2133, (分離)
da Silva, B.P. et al., Phytochemistry, 2000, 53, 87-92, (3-neohesperidoside)

§§ ゴマノハグサ科(*Verbascum thapsiforme* Schrader)の花または全草。

§ Ajugose



[化合物分類]炭水化物(Oligosaccharides)
[構造式]

[分子式]$C_{36}H_{62}O_{31}$
[分子量]990.867
[基原]*Ajuga nipponensis* と *Verbascum thapsiforme* の根, the transfer products formed by the action of coffee α-D-galactosidase upon Raffinose and Stachyose
[融点]Mp 270 ℃
[比旋光度]:[α]$_D^{15}$ +190.8 (H_2O), [α]$_D^{20}$ +161.3 (H_2O)

文 献

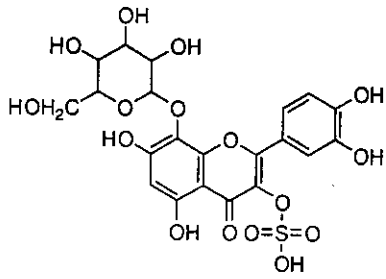
**********マロー（Mallow）**********

§§アオイ科ウスベニアオイ(*Malva sylvestris* L.)の花または全草。

§ 3,3',4',5,7,8-Hexahydroxyflavone; 8-*O*-β-D-Glucopyranoside, 3-*O*-sulfate

[化合物分類]フラボノイド(Flavonols; 6 × O-置換基)

[構造式]



[分子式]$C_{21}H_{20}O_{16}S$

[分子量]560.445

[基原]次の植物から分離: *Malva sylvestris*

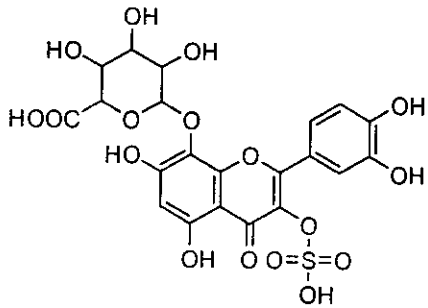
----------文献----------

Nauwar, M.A.M. et al., Phytochemistry, 1977, 16, 145; 1981, 20, 2446, (8-glycoside 3-sulfates)

§ 3,3',4',5,7,8-Hexahydroxyflavone; 8-*O*-β-D-Glucuronoside, 3-*O*-sulfate

[化合物分類]フラボノイド(Flavonols; 6 × O-置換基)

[構造式]



[分子式]$C_{21}H_{18}O_{17}S$

[分子量]574.429

[基原]次の植物から分離: *Malva sylvestris*

[融点]Mp 239℃で分解

[その他のデータ]Incorrect struct. given in CA

----------文献----------

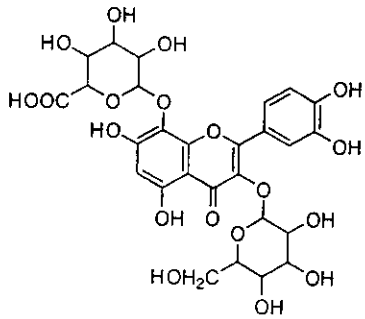
Nauwar, M.A.M. et al., Phytochemistry, 1977, 16, 145; 1981, 20, 2446, (8-glycoside 3-sulfates)

§ 3,3',4',5,7,8-Hexahydroxyflavone; 3-*O*-β-D-Glucopyranoside, 8-*O*-β-D-glucuronoside

[CAS No.]135010-45-6

[化合物分類]フラボノイド(Flavonols; 6 × O-置換基)

[構造式]



[分子式]$C_{27}H_{28}O_{19}$

[分子量]656.507

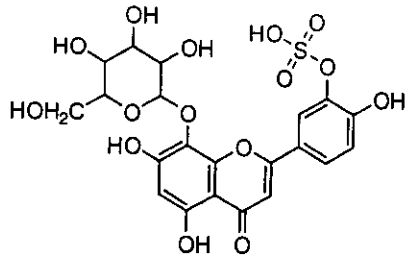
[基原]次の植物から分離: *Malva sylvestris*

----------文献----------

Ross, S.A. et al., Herba Pol., 1984, 30, 91, (3,8-diglucoside)
Saleh, N.A.M. et al., Phytochemistry, 1988, 27, 309, (3-glucuronoside 8-glucoside)
Billeter, M. et al., Phytochemistry, 1991, 30, 987, (3-glucoside 8-glucuronide)

§ 3',4',5,7,8-Pentahydroxyflavone; 8-*O*-β-D-Glucopyranoside, 3'-*O*-sulfate

§ **3',4',5,7,8-Pentahydroxyflavone; 8-*O*-β-D-Glucopyranoside, 3'-*O*-sulfate**
[CAS No.]63109-34-2
[化合物分類]フラボノイド(Flavones; 5 × O-置換基)
[構造式]

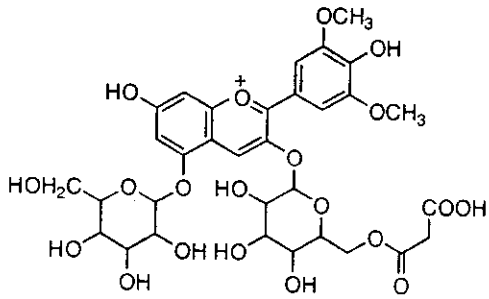


[分子式]$C_{21}H_{20}O_{15}S$
[分子量]544.446
[基原]次の植物から分離: *Malva sylvestris*
[その他のデータ]CAS no. は K salt のものである

---文 献---

Nawwar, M.A.M. et al., Phytochemistry, 1977, 16, 145, (8-glucoside 3'-sulfate)

§ **3,4',5,7-Tetrahydroxy-3',5'-dimethoxyflavylium (1+); 3-*O*-(6-*O*-Malonyl-β-D-glucopyranoside), 5-*O*-β-D-glucopyranoside**
[化学名・別名]Malvidin 3-(6-*O*-malonylglucoside) 5-glucoside
[化合物分類]フラボノイド(Anthocyanidins and anthocyanins; 6 × O-置換基)
[構造式]

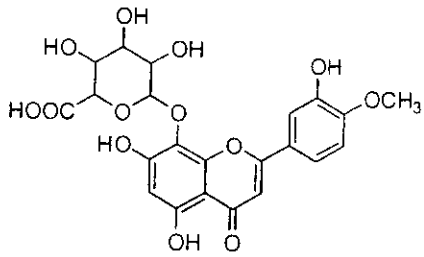


[分子式]$C_{32}H_{37}O_{20}^{(+)}$
[分子量]741.632
[基原]次の植物から分離: *Malva sylvestris*

---文 献---

Levy, L.P. et al., J.C.S., 1931, 2701, (合成法, 成書)
Robinson, R. et al., J.C.S., 1932, 2299, (Malvin)
Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhaumluser Verlag, Basel, 1972, no. 1746, (生育)
Pomilio, A.B. et al., Phytochemistry, 1973, 12, 218, (分離)
Brouillard, R. et al., J.A.C.S., 1977, 99, 8461, (分離)
Srivastava, B.S. et al., Planta Med., 1977, 32, 138, (分離)
Iacobucci, G.A. et al., Tetrahedron, 1983, 39, 3005, (レビュー)
The Flavonoids: Advances in Research since 1980, (Ed. Harborne, J.B.), Chapman and Hall, London, 1988
Santos, H. et al., Phytochemistry, 1993, 33, 1227, (Malvin)
Mitchell, K.A. et al., Phytochemistry, 1998, 47, 355-361, (Pelargonium 3,5-diglucosides)

§ **3',5,7,8-Tetrahydroxy-4'-methoxyflavone; 8-*O*-β-D-Glucuronopyranoside**
[CAS No.]135010-46-7
[化合物分類]フラボノイド(Flavones; 5 × O-置換基)
[構造式]



[分子式]$C_{22}H_{20}O_{13}$
[分子量]492.392
[基原]次の植物から分離: *Malva sylvestris*

---文 献---

Gudej, J., Acta Pol. Pharm., 1985, 42, 192-198, (8-glucosides)
Billeter, M. et al., Phytochemistry, 1991, 30, 987-990, (8-glucuronoside)
Tezuka, Y. et al., Helv. Chim. Acta, 1999, 82, 408-417, (8-glucuronoside Me ester)

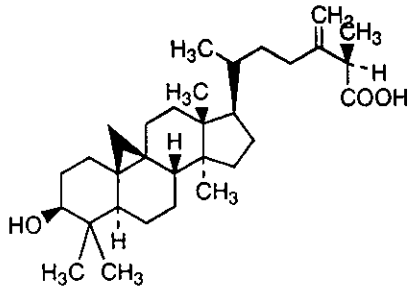
§§アオイ科ゼニアオイ(*Malva sylvestris* Linne var. *mauritiana* Miller)の花または全草。

*********マンゴー (Mango) *********

§ §ウルシ科マンゴー(*Mangifera indica* L.)の果実。

§ Ambolic acid

[化学名・別名]3 β-Hydroxy-24-methylene-25*R*-cycloartan-26-oic acid
[CAS No.]13878-93-8
[化合物分類]テルペノイド(Cycloartane triterpenoids),
[構造式]
[分子式]$C_{31}H_{50}O_3$
[分子量]470.734
[基原]*Mangifera indica*
[性状]結晶 ($CHCl_3$)
[融点]Mp 168-170 ℃
[比旋光度]:[α]$_D$ +32.6 (c, 0.5 in $CHCl_3$)

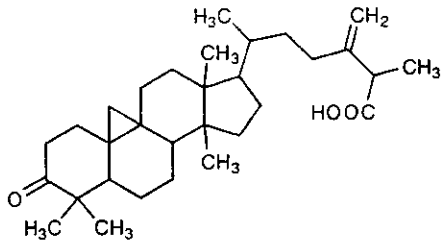


文献

Corsano, S. et al., Chem. Comm., 1968, 738, (分離)
Singh, C. et al., Tetrahedron, 1977, 33, 817, (合成法)

§ Ambolic acid; 3-Ketone

[化学名・別名]Ambonic acid
[CAS No.]17984-17-7
[化合物分類]AJ1760, テルペノイド(Cycloartane triterpenoids)
[構造式]
[分子式]$C_{31}H_{48}O_3$
[分子量]468.718
[基原]*Mangifera indica*
[性状]結晶 (Et_2O/hexane)
[融点]Mp 149-150 ℃
[比旋光度]:[α]$_D$ +9.4 (c, 0.7 in $CHCl_3$)

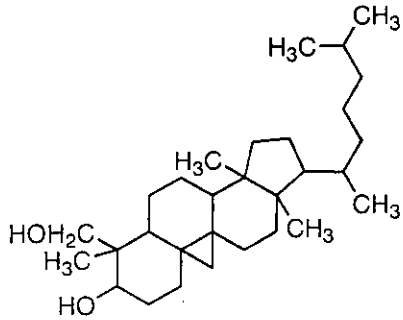


文献

Corsano, S. et al., Chem. Comm., 1968, 738, (分離)
Singh, C. et al., Tetrahedron, 1977, 33, 817, (合成法)

§ Cycloartane-3,29-diol; 3 β-form

[CAS No.]157772-00-4
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]
[分子式]$C_{30}H_{52}O_2$
[分子量]444.74
[基原]*Mangifera indica*
[性状]結晶
[融点]Mp 196-198 ℃
[比旋光度]:[α]$_D$ +34.9 (c, 0.18 in $CHCl_3$)

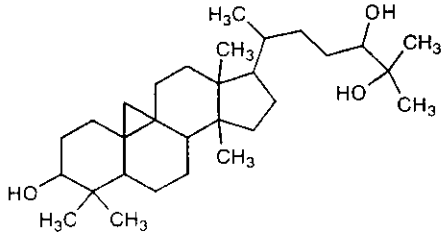


文献

Khan, M.A. et al., J. Nat. Prod., 1994, 57, 988, (分離, H-NMR, C13-NMR)

§ Cycloartane-3,24,25-triol; (3 β,24 ξ)-form

[CAS No.]110044-47-8
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]
[分子式]$C_{30}H_{52}O_3$
[分子量]460.739
[基原]*Mangifera indica*, *Juncus effusus*
[性状]結晶 (C_6H_6)
[融点]Mp 154-156 ℃

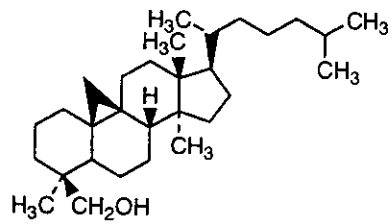


[融点]Mp 154-156 ℃
[比旋光度]:[α]$_D^{30}$ 0 (c, 0.8 in $CHCl_3$)
[その他のデータ]C-24 epimers の混合物として分離

----------文 献----------

Barik, B.R. et al., Phytochemistry, 1994, 35, 1001, (分離, H-NMR, C13-NMR)
Della Greca, M. et al., Phytochemistry, 1994, 35, 1017, (分離, H-NMR, C13-NMR)
Inada, A. et al., J. Nat. Prod., 1995, 58, 1143, (分離, H-NMR, C13-NMR)
Inada, A. et al., Phytochemistry, 1997, 46, 379-381, (3 α,24R-form)

§ Cycloartan-29-ol

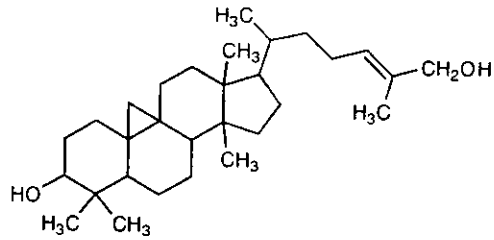


[化学名・別名]9,19-Cyclolanostan-29-ol
[CAS No.]157772-01-5
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]
[分子式]$C_{30}H_{52}O$
[分子量]428.74
[基原]*Mangifera indica*
[性状]結晶
[融点]Mp 180-182 ℃
[比旋光度]:[α]$_D$ +27.38 (c, 0.21 in $CHCl_3$)

----------文 献----------

Khan, M.A. et al., J. Nat. Prod., 1994, 57, 988, (分離, H-NMR, C13-NMR)

§ Cycloart-24-ene-3,26-diol; (3 β,24*E*)-form

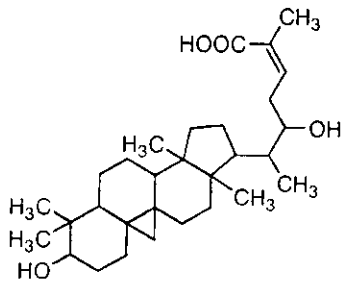


[化学名・別名]Mangiferadiol
[CAS No.]64396-81-2
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]
[分子式]$C_{30}H_{50}O_2$
[分子量]442.724
[基原]*Mangifera indica*
[性状]針状結晶 (C_6H_6)
[融点]Mp 154-155 ℃
[比旋光度]:[α]$_D^{30}$ +51 (c, 1 in $CHCl_3$)

----------文 献----------

Corsano, S. et al., Tet. Lett., 1965, 2377, (合成法)
Anjaneyulu, V. et al., Phytochemistry, 1985, 24, 2359, (分離, H-NMR, C13-NMR)
Cabrera, G.M. et al., J. Nat. Prod., 1996, 59, 343, (分離, H-NMR, C13-NMR)

§ Cycloart-24-ene-3,22,26-triol; (3 α,22 ξ,24*E*)-form, 26-Carboxylic acid



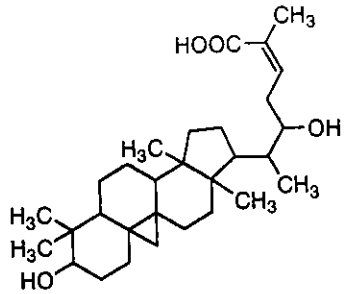
[化学名・別名]3,22-Dihydroxycycloart-24-en-26-oic acid
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

[分子式]$C_{30}H_{48}O_4$
[分子量]472.707
[基原]*Mangifera indica*
[性状]結晶 ($CHCl_3$/MeOH)
[融点]Mp 218-220 ℃
[比旋光度]:[α]$_D^{30}$ +27.5 (c, 0.8 in $CHCl_3$)

----------文 献----------

Anjaneyulu, V. et al., Phytochemistry, 1989, 28, 1471
Yi, Y. et al., Zhongguo Yaoke Daxue Xuebao, 1991, 22, 270; CA, 117, 66557c, (Thalifoenoside A)
Yoshimitsu, H. et al., Chem. Pharm. Bull., 1992, 40, 2465
Corsaro, M.M. et al., Phytochemistry, 1994, 37, 515, (Juncosides)
Yoshimitsu, H. et al., Chem. Pharm. Bull., 2000, 48, 828-831, (Squarroside I)

§ Cycloart-24-ene-3,22,26-triol; (3 β,22*S*,24*E*)-form, 26-Carboxylic acid



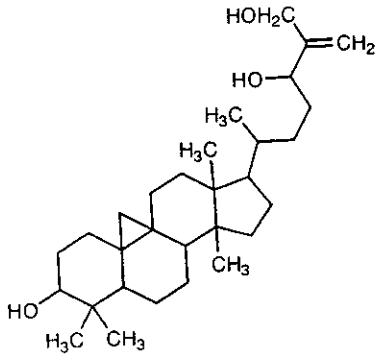
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

[分子式]$C_{30}H_{48}O_4$
[分子量]472.707
[基原]*Mangifera indica*

----------文献----------

Anjaneyulu, V. et al., Phytochemistry, 1989, 28, 1471
Yi, Y. et al., Zhongguo Yaoke Daxue Xuebao, 1991, 22, 270; CA, 117, 66557c, (Thalifoenoside A)
Yoshimitsu, H. et al., Chem. Pharm. Bull., 1992, 40, 2465
Corsaro, M.M. et al., Phytochemistry, 1994, 37, 515, (Juncosides)
Yoshimitsu, H. et al., Chem. Pharm. Bull., 2000, 48, 828-831, (Squarroside I)

§ Cycloart-25-ene-3,24,27-triol; (3 β,24 ξ)-form



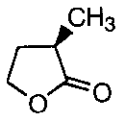
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

[分子式]$C_{30}H_{50}O_3$
[分子量]458.723
[基原]*Mangifera indica*
[性状]結晶 (C_6H_6/hexane)
[融点]Mp 190-192 ℃
[比旋光度]:$[\alpha]_D^{20}$ +18.8 (c, 1.2 in $CHCl_3$)
[その他のデータ]C-24 epimers の混合物として分離

----------文献----------

Anjaneyulu, V. et al., Phytochemistry, 1985, 24, 2359

§ Dihydro-3-methyl-2(3*H*)-furanone(CAS 名)



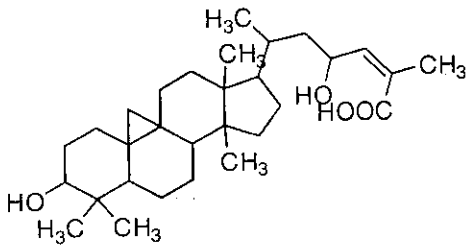
(*R*)-form

[化学名・別名] α-Methyl-γ-butyrolactone. 2-Methyl-4-butanolide
[CAS No.]1679-47-6
[化合物分類]含酸素複素環式化合物(Butanolides), 脂肪族化合物(Simple heteroalicyclics (1 × O))
[構造式]
[分子式]$C_5H_8O_2$
[分子量]100.117
[基原]Present in *Mangifera indica*, sex pheromone of Mediterranean fruit fly *Ceratitis capitata*
[販売元]Aldrich:11775-7; Fluka:66144; Sigma:M5892

----------文献----------

Timmer, R. et al., J. Agric. Food Chem., 1975, 23, 53, (分離, Mass, chromatogr)
Ozegowski, R. et al., Annalen, 1995, 1699, (R-form, 合成法, H-NMR, C13-NMR)

§ 3,23-Dihydroxycycloart-24-en-26-oic acid; (3 β,23 ξ)-form



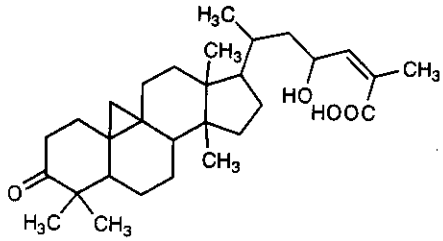
[CAS No.]123563-63-3
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]
[分子式]$C_{30}H_{48}O_4$
[分子量]472.707
[基原]*Mangifera indica*
[性状]結晶 ($CHCl_3$/MeOH)
[融点]Mp 279-281 ℃
[比旋光度]:$[\alpha]_D^{30}$ +49 (c, 0.52 in MeOH)

----------文献----------

Anjaneyulu, V. et al., Phytochemistry, 1989, 28, 1471

Anjaneyulu, V. et al., Phytochemistry, 1999, 50, 1229-1236, (23-epimer, 3-ketone)

§ 3,23-Dihydroxycycloart-24-en-26-oic acid; (3 β,23 ξ)-form, 3-Ketone
[化学名・別名]23-Hydroxy-3-oxocycloart-24-en-26-oic acid
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

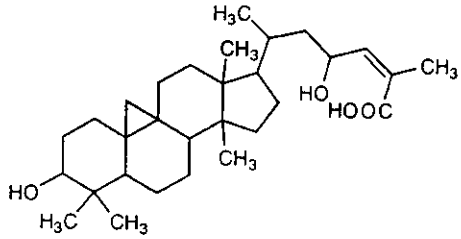


[分子式]$C_{30}H_{46}O_4$
[分子量]470.691
[基原]*Mangifera indica*

---文 献---

Anjaneyulu, V. et al., Phytochemistry, 1989, 28, 1471
Anjaneyulu, V. et al., Phytochemistry, 1999, 50, 1229-1236, (23-epimer, 3-ketone)

§ 3,23-Dihydroxycycloart-24-en-26-oic acid; (3 β,23 ξ)-form, 23-Epimer
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

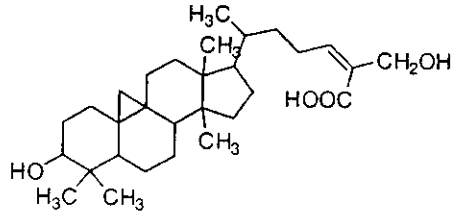


[分子式]$C_{30}H_{48}O_4$
[分子量]472.707
[基原]*Mangifera indica*
[性状]結晶 ($CHCl_3$/MeOH)
[融点]Mp 240-242 ℃
UV: [neutral] λ_{max} 218 (EtOH)

---文 献---

Anjaneyulu, V. et al., Phytochemistry, 1989, 28, 1471
Anjaneyulu, V. et al., Phytochemistry, 1999, 50, 1229-1236, (23-epimer, 3-ketone)

§ 3,27-Dihydroxycycloart-24-en-26-oic acid; (3 α, 24*E*)-form
[化学名・別名]27-Hydroxyisomangiferolic acid
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

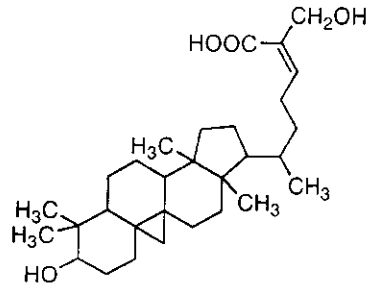


[分子式]$C_{30}H_{48}O_4$
[分子量]472.707
[基原]*Mangifera indica*
[性状]結晶 (C_6H_6/EtOAc)
[融点]Mp 207-209 ℃
[比旋光度]:$[\alpha]_D^{30}$ +21.5 (c, 0.8 in $CHCl_3$)

---文 献---

Corsano, S. et al., Ann. Chim. (Rome), 1967, 57, 508-521
Anjaneyulu, V. et al., Phytochemistry, 1989, 28, 1471-1477, (分離)
Sharma, S.K. et al., J. Indian Chem. Soc., 1995, 72, 339-342, (分離)

§ 3,27-Dihydroxycycloart-24-en-26-oic acid; (3 β, 24*E*)-form
[化学名・別名]27-Hydroxymangiferolic acid
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

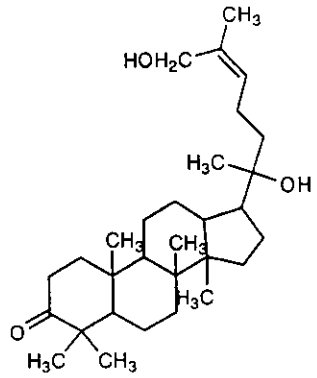


[分子式]$C_{30}H_{48}O_4$
[分子量]472.707
[基原]*Mangifera indica* の茎皮
[融点]Mp 201-204 ℃
[比旋光度]:$[\alpha]_D$ +39 (c, 0.4 in $CHCl_3$)

---文 献---

Corsano, S. et al., Ann. Chim. (Rome), 1967, 57, 508-521
Anjaneyulu, V. et al., Phytochemistry, 1989, 28, 1471-1477, (分離)
Sharma, S.K. et al., J. Indian Chem. Soc., 1995, 72, 339-342, (分離)

§ 20,26-Dihydroxy-24-dammaren-3-one; (20*S*,24*E*)-form
[CAS No.]99891-80-2
[化合物分類]テルペノイド(Dammarane triterpenoids)
[構造式]

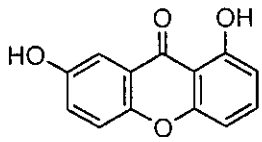


[分子式]$C_{30}H_{50}O_3$
[分子量]458.723
[基原]*Mangifera indica*
[性状]結晶 (C_6H_6/hexane)
[融点]Mp 116-118 ℃
[比旋光度]:$[\alpha]_D^{30}$ +30.6 (c, 0.6 in $CHCl_3$)

----------文 献----------

Anjaneyulu, V. et al., Phytochemistry, 1985, 24, 2359

§ 1,7-Dihydroxyxanthone
[化学名・別名]1,7-Dihydroxy-9*H*-xanthen-9-one(CAS 名). Euxanthone. Eyxanthone. Purrenone
[CAS No.]529-61-3
[化合物分類]単環芳香族(Xanthones; 2 × O-置換基)
[構造式]

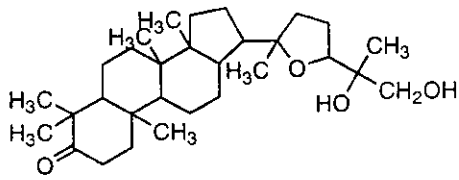


[分子式]$C_{13}H_8O_4$
[分子量]228.204
[基原]*Calophyllum* spp., *Mesua ferrea*, *Mesua thwaitesii*, *Mammea americana*, *Platonia insignis*, *Mangifera indica*, *Symphonia globulifera*, *Allanblackia floribunda*, 等
[性状]黄色の針状結晶 (toluene)
[融点]Mp 240 ℃

----------文献----------

Robertson, A. et al., J.C.S., 1931, 1709, (Euxanthinic acid)
Antonaccio, L.D. et al., Ann. Acad. Bras. Cienc., 1965, 37, 229; CA, 65, 2622, (分離, 誘導体)
Locksley, H.D. et al., J.C.S.(C), 1966, 430; 1969, 1567; 1971, 1332, (分離, 合成法)
Finnegan, R.A. et al., J.C.S. Perkin 1, 1972, 1896, (分離, 合成法)
Bandaranayake, W.M. et al., Phytochemistry, 1975, 14, 265; 1878, (分離)
Gunatilake, A.A.L. et al., Phytochemistry, 1982, 21, 1751, (分離)
Baer, N.S. et al., Artists' Pigm., 1986, 1, 17, (レビュー, Euxanthinic acid)

§ 20,24-Epoxydammarane-3,25,26-triol; (20*S*,24*R*,25 ξ)-form, 3-Ketone
[化学名・別名]20,24-Epoxy-25,26-dihydroxydammaran-3-one
[CAS No.]146830-04-8
[化合物分類]テルペノイド(Dammarane triterpenoids)
[構造式]

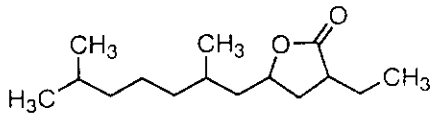


[分子式]$C_{30}H_{50}O_4$
[分子量]474.723
[基原]*Mangifera indica*
[性状]結晶 ($CHCl_3$/MeOH)
[融点]Mp 143-144 ℃
[比旋光度]:$[\alpha]_D^{30}$ +34 (c, 0.5 in $CHCl_3$)

----------文献----------

Anjaneyulu, V. et al., Phytochemistry, 1993, 32, 469, (分離, H-NMR, C13-NMR)
Fujita, S. et al., Phytochemistry, 1995, 38, 465, (分離, H-NMR, C13-NMR)

§ 15,5-Farnesanolide
[化学名・別名]5-(2,6-Dimethylheptyl)-3-ethyl-3,4-dihydro-2(5*H*)furanone
[CAS No.]160775-28-0
[化合物分類]テルペノイド(Simple farnesane sesquiterpenoids)
[構造式]

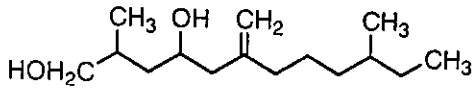


[分子式]$C_{15}H_{26}O_2$

[分子量]240.385
[基原]*Mangifera indica*

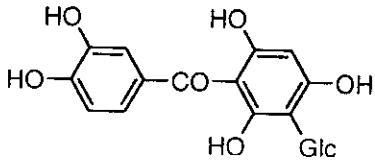
---文 献---
Sharma, S.K. et al., Indian J. Nat. Prod., 1993, 9, 3, (分離)

§ 7(14)-Farnesene-9,12-diol
[化学名・別名]2,10-Dimethyl-6-methylene-1,4-dodecanediol
[CAS No.]160775-29-1
[化合物分類]テルペノイド(Simple farnesane sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{30}O_2$
[分子量]242.401
[基原]*Mangifera indica*



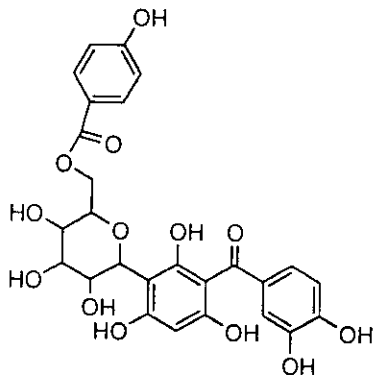
---文 献---
Sharma, S.K. et al., Indian J. Nat. Prod., 1993, 9, 3, (分離)

§ 3-Glucosyl-2,3',4,4',6-pentahydroxybenzophenone
[化学名・別名]3-Glucosylmaclurin
[CAS No.]92631-83-9
[化合物分類]単環芳香族(Benzophenones; 5 × O-置換基)
[構造式]
[分子式]$C_{19}H_{20}O_{11}$
[分子量]424.36
[基原]*Mangifera indica* の葉
[性状]黄色の無定型の粉末
[比旋光度]:$[\alpha]_D^{25}$ +33.2 (c, 0.9 in MeOH)



---文 献---
Tanaka, T. et al., Chem. Pharm. Bull., 1984, 32,2676
Li, J.-C. et al., Chem. Pharm. Bull., 2000, 48, 1354-1355, (Telephenones)

§ 3-Glucosyl-2,3',4,4',6-pentahydroxybenzophenone; 6''-(4-Hydroxybenzoyl)
[CAS No.]92665-82-2
[化合物分類]単環芳香族(Benzophenones; 5 × O-置換基)
[構造式]

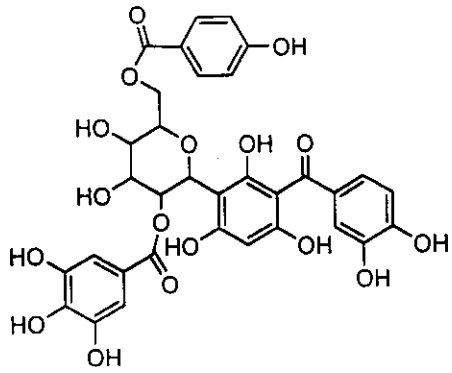


[分子式]$C_{26}H_{24}O_{12}$
[分子量]544.468
[基原]*Mangifera indica* の葉
[性状]黄色の無定型の粉末
[比旋光度]:$[\alpha]_D^{31}$ -50 (c, 0.80 in MeOH)

---文 献---
Tanaka, T. et al., Chem. Pharm. Bull., 1984, 32,2676
Li, J.-C. et al., Chem. Pharm. Bull., 2000, 48, 1354-1355, (Telephenones)

§ 3-Glucosyl-2,3',4,4',6-pentahydroxybenzophenone; 2''-(3,4,5-Trihydroxybenzoyl), 6''-(4-hydroxybenzoyl)
[CAS No.]92631-84-0

[構造式]



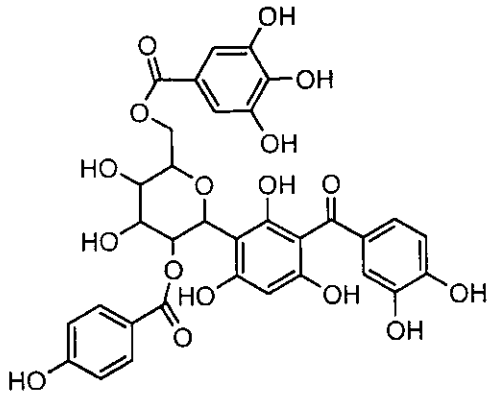
[分子式]$C_{33}H_{28}O_{17}$
[分子量]696.574
[基原]*Mangifera indica* の葉
[性状]黄色の無定型の粉末
[比旋光度]:$[\alpha]_D^{24}$ -181.3 (c, 0.4 in MeOH)

----------文献----------

Tanaka, T. et al., Chem. Pharm. Bull., 1984, 32,2676
Li, J.-C. et al., Chem. Pharm. Bull., 2000, 48, 1354-1355, (Telephenones)

§ 3-Glucosyl-2,3',4,4',6-pentahydroxybenzophenone; 6''-(3,4,5-Trihydroxybenzoyl), 2''-(*p*-hydroxybenzoyl)

[CAS No.]92631-85-1
[化合物分類]単環芳香族(Benzophenones; 5 × O-置換基), タンニン化合物(Simple gallate ester tannins)
[構造式]



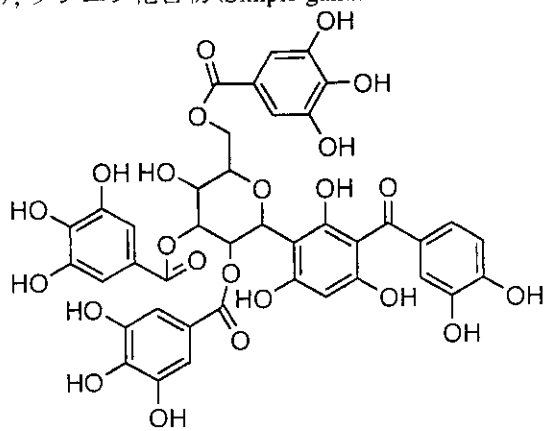
[分子式]$C_{33}H_{28}O_{17}$
[分子量]696.574
[基原]*Mangifera indica* の葉
[性状]青白い黄色の針状結晶 (H2O)
[融点]Mp 193-194 ℃
[比旋光度]:$[\alpha]_D^{24}$ -143.8 (c, 0.4 in MeOH)

----------文献----------

Tanaka, T. et al., Chem. Pharm. Bull., 1984, 32,2676
Li, J.-C. et al., Chem. Pharm. Bull., 2000, 48, 1354-1355, (Telephenones)

§ 3-Glucosyl-2,3',4,4',6-pentahydroxybenzophenone; 2'',3'',6''-Tris(3,4,5-trihydroxybenzoyl)

[CAS No.]92631-86-2
[化合物分類]単環芳香族(Benzophenones; 5 × O-置換基), タンニン化合物(Simple gallate ester tannins)
[構造式]



[分子式]$C_{40}H_{32}O_{23}$
[分子量]880.679
[基原]*Mangifera indica* の葉
[性状]黄色の無定型の粉末・一水和物
[比旋光度]:$[\alpha]_D^{30}$ -48.8 (c, 0.4 in MeOH)

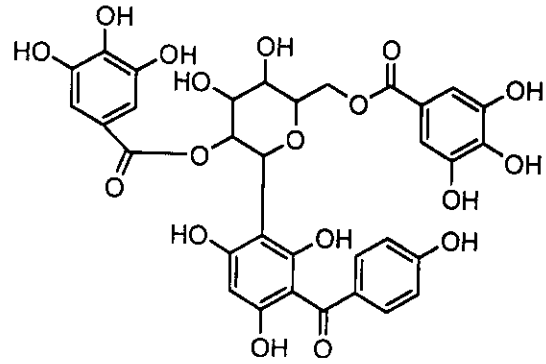
----------文献----------

Tanaka, T. et al., Chem. Pharm. Bull., 1984, 32,2676
Li, J.-C. et al., Chem. Pharm. Bull., 2000, 48, 1354-1355, (Telephenones)

§ 3-Glucosyl-2,4,4',6-tetrahydroxybenzophenone; 2'',6''-Di-*O*-galloyl

[CAS No.]92631-87-3
[化合物分類]単環芳香族(Benzophenones; 4 × O-置換基), タンニン化合物(Simple gallate ester tannins)

[CAS No.]92631-87-3
[化合物分類]単環芳香族(Benzophenones; 4 × O-置換基), タンニン化合物(Simple gallate ester tannins)
[構造式]

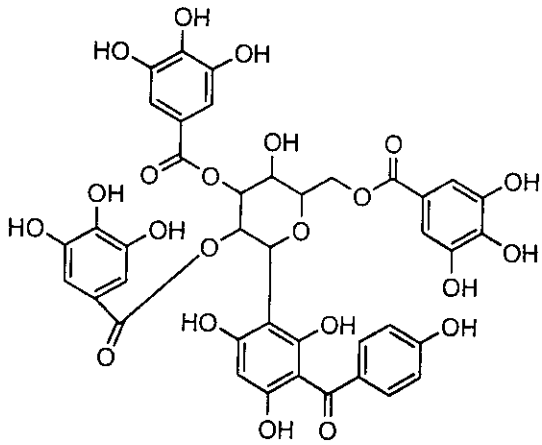


[分子式]$C_{33}H_{28}O_{18}$
[分子量]712.573
[基原]次の植物から分離: *Mangifera indica* の葉
[比旋光度]:[α]$_D$ -135 (c, 1.0 in MeOH)

----------文 献----------

Tanaka, T. et al., Chem. Pharm. Bull., 1984, 32, 2676
Murakami, T. et al., Yakugaku Zasshi, 1986, 106, 378

§ 3-Glucosyl-2,4,4',6-tetrahydroxybenzophenone; 2'',3'',6''-Tri-*O*-galloyl
[CAS No.]92631-88-4
[化合物分類]単環芳香族(Benzophenones; 4 × O-置換基), タンニン化合物(Simple gallate ester tannins)
[構造式]

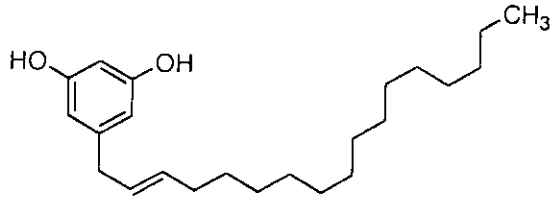


[分子式]$C_{40}H_{32}O_{22}$
[分子量]864.68
[基原]次の植物から分離: *Mangifera indica* の葉
[性状]黄色の無定型の粉末
[比旋光度]:[α]$_D$ -47.4 (c, 0.7 in MeOH)

----------文 献----------

Tanaka, T. et al., Chem. Pharm. Bull., 1984, 32, 2676
Murakami, T. et al., Yakugaku Zasshi, 1986, 106, 378

§ 5-Heptadecyl-1,3-benzenediol; 2',3'-Didehydro (*Z*-)
[化学名・別名]5-(2-Heptadecenyl)-1,3-benzenediol (CAS 名), 5-(2-Heptadecenyl) resorcinol
[CAS No.]94751-34-5
[化合物分類]単環芳香族(Simple phenols), 脂肪族化合物(Long-chain aromatic systems)
[構造式]



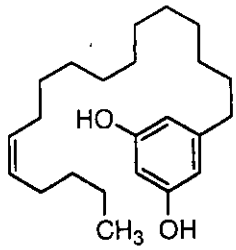
[分子式]$C_{23}H_{38}O_2$
[分子量]346.552
[基原]次の植物から分離: マンゴー(*Mangifera indica*)のラテックス

----------文 献----------

Cirigottis, K.A. et al., Aust. J. Chem., 1974, 27, 345-355, (分離, 合成法, UV, H-NMR, 誘導体)
Gohil, S. et al., J. Sci. Food Agric., 1988, 45, 43-52, (分離)
Trivedi, S.V. et al., Molecules, 1998, 3, 245-254, (2',3'-didehydro, 合成法, IR, H-NMR)

§ 5-Heptadecyl-1,3-benzenediol; 12',13'-Didehydro (Z-)
[化学名・別名]5-(12-Heptadecenyl)-1,3-benzenediol (CAS 名), 5-(12-Heptadecenyl) resorcinol
[CAS No.]103462-06-2
[その他の CAS No.]103462-07-3

[構造式]

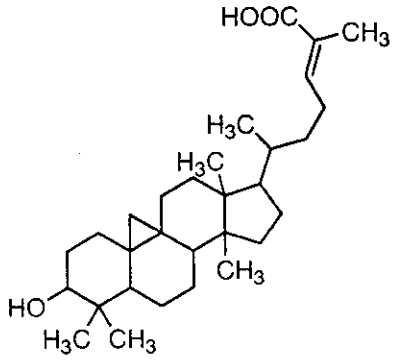


[分子式]$C_{23}H_{38}O_2$
[分子量]346.552
[基原]マンゴーの果実の皮(*Mangifera indica*)
[用途]抗カビ剤
[性状]オイル
UV: [neutral] λ max 233 (ε 1900); 274 (ε 920); 290 (ε 860) (EtOH) (Berdy) [base] λ max 244 (ε 1400); 292 (ε 920) (EtOH-NaOH) (Berdy)

----------文献----------

Cirigottis, K.A. et al., Aust. J. Chem., 1974, 27, 345-355, (分離, 合成法, UV, H-NMR, 誘導体)
Cojocaru, M. et al., Phytochemistry, 1986, 25, 1093, (12',13'-didehydro)
Gohil, S. et al., J. Sci. Food Agric., 1988, 45, 43-52, (分離)
Bouillant, M.L. et al., Phytochemistry, 1994, 35, 769, (12',13'-didehydro)
Trivedi, S.V. et al., Molecules, 1998, 3, 245-254, (2',3'-didehydro, 合成法, IR, H-NMR)

§ 3-Hydroxycycloart-24-en-26-oic acid; (3 α,24*E*)-form



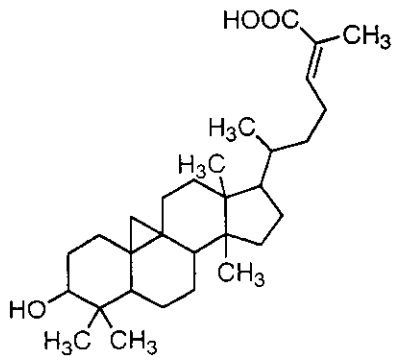
[化学名・別名]Isomangiferolic acid
[CAS No.]13878-92-7
[化合物分類]テルペノイド(Cycloartane triterpenoids), AJ1760
[構造式]
[分子式]$C_{30}H_{48}O_3$
[分子量]456.707
[基原]*Mangifera indica*
[性状]結晶 (EtOH)
[融点]Mp 168-170 ℃
[比旋光度]:[α]$_D$ +29 (c, 1 in $CHCl_3$)

----------文献----------

Corsano, S. et al., Tet. Lett., 1965, 2377, (分離)
Corsano, S. et al., Ann. Chim. (Rome), 1967, 57, 508, (分離)
Cheung, H.T. et al., Aust. J. Chem., 1972, 25, 2003, (分離)

§ 3-Hydroxycycloart-24-en-26-oic acid; (3 β,24*E*)-form

[化学名・別名]Mangiferolic acid
[CAS No.]4184-34-3
[化合物分類]AJ1760, テルペノイド(Cycloartane triterpenoids)
[構造式]



[分子式]$C_{30}H_{48}O_3$
[分子量]456.707
[基原]*Mangifera indica*
[性状]結晶 ($CHCl_3$/MEOH)
[融点]Mp 181-183 ℃
[比旋光度]:[α]$_D$ +49 ($CHCl_3$)

----------文献----------

Corsano, S. et al., Tet. Lett., 1965, 2377, (分離)
Corsano, S. et al., Ann. Chim. (Rome), 1967, 57, 508, (分離)
Cheung, H.T. et al., Aust. J. Chem., 1972, 25, 2003, (分離)

§ 30-Hydroxy-1,12,20(29)-lupatrien-3-one