Natural Products

ChemFaces

Ganoderiol F Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Ganoderiol F

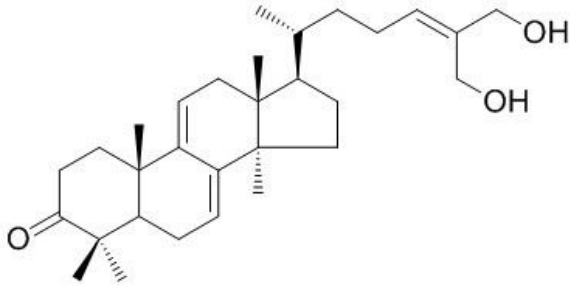
Catalog No.: CFN99244

Cas No.: 114567-47-4

Purity: > 98%

M.F: $C_{30}H_{46}O_3$

M.W: 454.7



Physical Description: Powder

Synonyms:26,27-Dihydroxylanosta-7,9(11),24-trien-3-one;(5R,10S,13R,14R,17R)-17-[(2R)-7-hydroxy-6-(hydroxymethyl)hept-5-en-2-yl]-4,4,10,13,14-pentamethyl-1,2,5,6,12,15,16,17-octahydrocyclopenta[a]phenanthren-3-one;Lanosta-7,9(11),24-trien-3-one,26,27-dihydroxy-.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Care and daily chemicals;
6. Intermediates & Fine Chemicals;
7. Ingredient in supplements, beverages;
8. Others.

[Source]

The fruit body of *Ganoderma lucidum.*

[Biological Activity or Inhibitors]

Ganoderiol F(GolF) , a tetracyclic triterpene, was isolated from Ganoderma amboinense and found to induce senescence of cancer cell lines, it induces growth arrest of cancer cell lines HepG2, Huh7 and K562; activation of the mitogen-activated protein kinase EKR and up-regulation of cyclin-dependent kinase inhibitor p16 were found in early stages of GolF treatment and were presumed to cause cell-cycle arrest and trigger premature senescence of HepG2 cells; suggests that the growth-arrest and senescence induction capability on cancer cells suggest anticancer potential of GolF.[1]

Ganoderiol-F could be developed further as both anti-HIV and antimalaria, the affinity of ganoderiol-F is higher towards HIV-1 protease (binding energy= -11.40kcal/mol and Ki= 4.68nM) than to plasmepsin I (binding energy= -9.96 kcal/mol and Ki= 50.94 nM), meanwhile pepstatin-A has better affinity towards HIV-1 protease (binding energy= -4.52 kcal/mol and Ki= 496.13 uM) than to plasmepsin I (binding energy= -3.07 kcal/mol and Ki= 5.98 mM).[2]

Ganoderiol F shows binding activity to androgen receptor and inhibits LNCaP cell proliferation.[3]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, Ethyl ether, DMSO.

[HPLC Method][4]

Mobile phase: Methanol -H2O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 25 ℃;

The wave length of determination: 254 nm.

[Storage]

2-8℃, Protected from air and light, refrigerate or freeze.

[References]

[1] Chang U M, Li C H, Li Lin, *et al. Life Sci., 2006, 79(12):1129-39.*

[2] Levita J, Chao K H, Mutakin. *Int .J. Pharm. Pharmaceut. Sci., 2014, 6(5):561-6.*

[3] Jie L, Tamura S, Kurashiki K, *et al. Chem. Biodivers., 2009, 6(2):231-43.*

[4] Zhao J, Zhang X, Li S, *et al. J. Sep. Sci., 2006, 29(17):2609-15.*

[Contact]

Address:
S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com
Tel: +86-27-84237783
Fax: +86-27-84254680
Web: www.chemfaces.com
Tech Support: service@chemfaces.com