Natural Products

ChemFaces

Eburicoic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Eburicoic acid

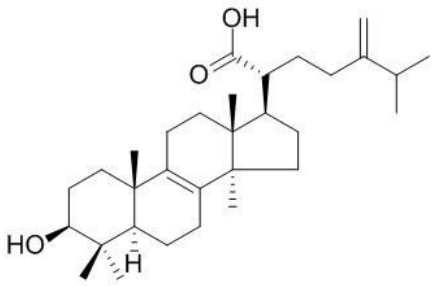
Catalog No.: CFN90414

Cas No.: 560-66-7

Purity: 96.5%

M.F: $C_{31}H_{50}O_3$

M.W: 470.73



Physical Description: Powder

Synonyms:(2R)-2-[(3S,5S,10S,13R,14R,17R)-3-hydroxy-4,4,10,13,14-pentamethyl-2,3 , 5,6,7,11,12,15,16,17-decahydro-1H-cyclopenta[a]phenanthren-17-yl]-6-methyl-5-methylidene-heptanoic acid;3beta-Hydroxy-24-methylene-8-lanosten-21-oic acid;NSC 41969.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The root of *Wolfiporia cocos (Schw.) Ryv.*

[Biological Activity or Inhibitors]

Eburicoic acid and dehydroeburicoic acid from *Antrodia camphorata* have hepatoprotective effects against carbon tetrachloride (CCl4)-induced liver damage were investigated in mice, they protect the liver from CCl4-induced hepatic damage via antioxidant and anti-inflammatory mechanisms.[1]

Eburicoic acid and dehydroeburicoic acid have analgesic and anti-inflammatory effects, the anti-inflammatory mechanisms of them might be related to the decrease of inflammatory cytokines and an increase of antioxidant enzyme activity.[2]

Eburicoic acid can effectively reduce Hep 3B cell viability within 24 hours, and the IC50 was 18.4 μM, which is equivalent to 8.7 μg/mL; it firstly promoted reactive oxygen species generation and ATP depletion, leading to endoplasmic reticulum stress, followed by elevated cytosolic calcium ion concentration and BiP expression, downregulated phosphorylation of DAPK, upregulated phosphorylation of Beclin-1, JNK, and Bcl-2, and finally induced autophagy in Hep 3B cells;indicates that eburicoic acid has significant anti-liver cancer effects and more distinctive mechanisms. [3]

Eburicoic acid shows a moderate vasore-laxant effect on rat aorta.[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method][5]

Mobile phase: Petroleum ether - Ethyl acetate,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 210 nm.

[Storage]

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

[References]

[1] Huang G J, Deng J S, Huang S S, *et al. Food Chem., 2013, 141(3):3020-7.*

[2] Deng J S, Huang S S, Lin T H, *et al. J. Agr. Food Chem., 2013, 61(21):5064-71.*

[3]Su Y C, Liu C T, Chu Y L, *et al. J.Tradit. Compl. Med., 2012, 2(4):312-22.*

[4] Hosoe T, Iizuka T, Chiba Y, *et al. Nat. Med., 2006, 60(2):130-4.*

[5] Sun Y C, Bai J, Hu J L, *et al. Guangzhou Chemical Industry, 2015(6):57-8.*

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