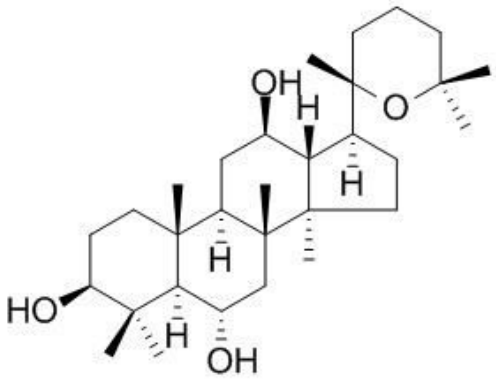
Natural Products

ChemFaces

Panaxatriol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Panaxatriol

Catalog No.: CFN99982

Cas No.: 32791-84-7

Purity: > 98%

M.F: $C_{30}H_{52}O_4$

M.W: 476.73

Physical Description: White powder

Synonyms:(3S,5R,6R,8R,9R,10R,12R,13R,14R,17S)-4,4,8,10,14-pentamethyl-17-[(2R)-2,6,6-trimethyl-2-oxanyl]-2,3,5,6,7,9,11,12,13,15,16,17-dodecahydro-1H-cyclopenta[a]phenanthrene-3,6,12-triol.

[Intended Use]

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

[Source]

The roots of *Panax ginseng C. A. Mey.*

[Biological Activity or Inhibitors]

Panaxatriol saponins (PTS), the main constituents extracted from Panax notoginseng, a Chinese herbal medicine, has been shown to be an effective agent on various diseases, it is an inducer of thioredoxin-1 (Trx-1), it prevents 1-methyl-4-phenylpyridinium ion-induced neurotoxicity and has pluripharmacological properties in the protection against Parkinson's disease (PD) including enhancing antioxidant activity, acting as neurotrophic factor, modulating inflammation and inhibiting mitochondria-mediated apoptosis.[1,2]

Panaxatriol saponins has been shown to be efficacious in the prevention and treatment of cerebrovascular diseases in China, it may activate endogenous cytoprotective mechanism against OGD-Rep induced oxidative injury via the activation of PI3K/Akt and Nrf2 signaling pathway.[3]

Panaxatriol saponins shows a protective effect on focal cerebral ischemia in rat brain by alleviating cerebral edema, up regulating the expression of HSP70, down regulating transferrin and maintaining blood brain barrier.[4]

Panaxatriol ameliorates ischemia/reperfusion (I/R) -induced myocardial damage and this protection is caused by reducing oxidative stress.[5]

[Solvent]

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

[HPLC Method][6]

Mobile phase: Methanol -H2O=95:5 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 230 nm.

[Storage]

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

[References]

[1] Luo F C, Wang S D, Qi L, *et al. J. Ethnopharmacol., 2011, 133(133):448-53.*

[2] Luo F C, Wang S D, Li K, *et al. J. Ethnopharmacol., 2010, 127(2):419-23.*

[3] Huang Y, Yu J, Fang W, *et al. Oxid. Med. Cell. Longev., 2014(6):978034-978034.*

[4] Hao Y X, Xue jun L I. *China Journal of Chinese Materia Medica, 2002, 27(5):371-3.*

[5] Kim T H, Lee S M. *Food Chem. Toxicol. , 2010, 48(6):1516-20.*

[6] Zhang N J, Qu X X, Liu H L. *Food Research & Development, 2015(6):28-31.*

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