

20(S)-Protopanaxdiol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: 20(S)-Protopanaxdiol

Catalog No.: CFN99764

Cas No.: 30636-90-9

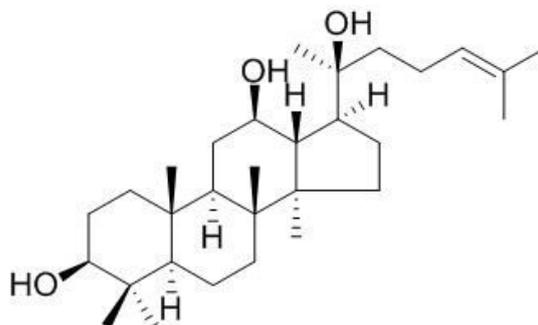
Purity: > 98%

M.F: C₃₀H₅₂O₃

M.W: 460.00

Physical Description: White powder

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



[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]

20(S)-Protopanaxadiol may inhibit the proliferation of Siha cells, and its mechanism may be related to up-regulating the expressions of p53, p21, and autophagy related gene Beclin 1 and MAP1-LC3, and down-regulating the expression of cyclin-E.^[1,2]

20 (S)-Protopanaxadiol may induce the apoptosis of PC3 cells, and its mechanism may be related to the down-regulation of Bcl-2 protein and the up-regulation of γ H2Ax protein expression.^[3]

20(S)-Protopanaxadiol may induce the apoptosis of Siha cells, and its mechanism may be related to the up-regulation of bax expression, and the up-regulation and activation of caspase family.^[4,5]

20(S)-Protopanaxadiol saponins have protective effects on acute myocardial ischemia including improving heart function, decreasing cardiac oxygen consumption and increasing myocardial blood flow, etc.^[6]

[Solvent]

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

[HPLC Method]^[7]

Mobile phase: Acetonitrile-0.2% Phosphoric acid H₂O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 40 °C;

The wave length of determination: 203 nm.

[Storage]

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

[References]

- [1] Lu Y M , Zhao L J, Wang H B, *et al. Journal of Jilin University*, 2013, 39(05):909-12.
- [2] Duo X U, Zhao L J, Cheng H, *et al. Journal of Jilin University*, 2010, 36(6):1055-8.
- [3] Cheng H, Zhao L J, Lu Y M, *et al. Journal of Jilin University Medicine Edition*, 2012, 38(3):482-5.
- [4] Zhao L J, Xu D, Liang Z W, *et al. Journal of Jilin University Medicine Edition*, 2010, 36(2):345-8.
- [5] Zhao L J, Xu D, Hong C, *et al. Journal of Jilin University Medicine Edition*, 2011, 37(1):26-9.
- [6] Liu S, Sui D, Yu X, *et al. Zhongguo Yao Xue Za Zhi*, 2001, 36(1):25-9
- [7] Yin S, Wu H, Xu F, *et al. Acta Acad. Med. Militaris Tertiae*, 2010, 32(7):658-60.

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