

## (20R)-Protopanaxdiol Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** (20R)-Protopanaxdiol

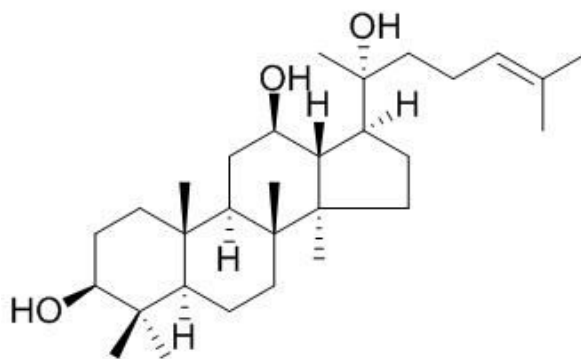
**Catalog No.:** CFN99979

**Cas No.:** 7755-01-3

**Purity:** > 98%

**M.F:** C<sub>30</sub>H<sub>52</sub>O<sub>3</sub>

**M.W:** 460.74



**Physical Description:** White powder

**Synonyms:** (3S,8R,9R,10R,12R,13R,14S,17S)-17-[(2R)-2-hydroxy-6-methylhept-5-en-2-yl]-4,4,8,10,14-pentamethyl-2,3,5,6,7,9,11,12,13,15,16,17-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]**

Protopanaxdiol is effective in preventing and healing obesity, fatty liver and hypertriglyceridemia in mice fed with a high-fat diet. <sup>[1]</sup>

Protopanaxdiol has the effect of anti-tumor through increasing the activity of body immunity,improving the lymphocyte transformation,the activity of NK cells and the contents of IL-2 significantly.<sup>[2]</sup>

Protopanaxdiol inhibits tumor interstitial microvascular density and its proliferation activity, finally inhibits tumor growth.<sup>[3]</sup>

Protopanaxdiol can inhibit expression of vascular endothelial growth factor (VEGF) and basofibroblast growth factor(bFGF) protein,finally inhibits tumor growth of liver.<sup>[4]</sup>

(20R)-Protopanaxdiol has protective effect on myocardial ischemia, which may be related to improving free radicals metabolism and myocardial metabolism, decreasing plasma TXA<sub>2</sub> levels, therefore, it may be an effective drug for the treatment of myocardial ischemia.<sup>[5]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ]<sup>[6]</sup>**

Mobile phase: Acetonitrile-0.2% Phosphoric acid H<sub>2</sub>O, 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] Liu R, Zhang J Z, Liu W C, *et al. Fitoterapia*, 2010, 81(8):1079-87.
- [2] Chen M, Li X. *China Pharmacist*, 2007, 10(12):1165-8.
- [3] Qin J J, Yang Y, Li Y , *et al. Chinese Journal of Clinical Hepatology*, 2006, 22(4):260-1.
- [4] Leng J Y, Jun F U, Wang J P. *Chinese Journal of Clinical Hepatology*, 2008, 24(1):42-3.
- [5] Shu W U, Sui D, Xiao Y U, *et al. Journal of Chinese Pharmaceutical Sciences*, 2002, 37(2):100-3.
- [6] Yin S, Wu H, Xu F, *et al. Acta Academiae Medicinae Militaris Tertiae*, 2010, 32(7): 658-60.

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