(20S)-Protopanaxatriol Datasheet

4th Edition (Revised in July, 2016)

[ Product Information ]

Name: (20S)-Protopanaxatriol
Catalog No.: CFN90564
Cas No.: 34080-08-5
Purity: > 98%
M.F: C_{30}H_{52}O_{4}
M.W: 476.4
Physical Description: Powder
Synonyms: (3b,6a,12b)-Dammar-24-ene-3,6,12,20-tetrol.

[ Intended Use ]

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

[ Source ]

The roots of Panax ginseng.
Biological Activity or Inhibitors

20(S)-Protopanaxatriol (PPT), one of the ginsenoside metabolites, it can increase peroxisome proliferator-activated receptor gamma (PPARgamma)-transactivation activity dose-dependently with similar activity as troglitazone, a well-known PPARgamma agonist; it can enhance adipogenesis by increasing the expression of PPARgamma target genes such as aP2, LPL and PEPCK, it significantly increases expression of glucose transporter 4 (GLUT4); indicates that PPT can be developed as a PPARgamma agonist for the improvement of insulin resistance associated with diabetes.[1]

20(S)-protopanaxatriol has antiallergic effects, it reduces the release of inflammatory mediators via inhibiting multiple cellular signaling pathways comprising the Ca2+ influx, protein kinase C, and phospholipase A2 (PLA2), which are propagated by Syk activation upon allergic stimulation of mast cells.[2]

20(S)-Protopanaxatriol inhibits inducible nitric oxide synthase and cyclooxygenase-2 expressions through inactivation of nuclear factor-κB in RAW 264.7 macrophages stimulated with lipopolysaccharide, it may be possible to develop PPT as a useful agent for chemoprevention of cancer or inflammatory diseases.[3]

Solvent

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

HPLC Method[4]

HPLC-ELSD:
Mobile phase: 10% acetonitrile aqueous solution containing 5% acetic acid- 80% acetonitrile aqueous solution water, gradient elution;
Flow rate: 1.2 ml/min;
Column temperature: 30 °C;
Drift tube temperature: 60 °C;
Flow rate of gas: 1.8L/min;
Carrier gas: \text{N}_2.

[ **Storage** ]

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

[ **References** ]


[ **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