

Ginsenoside Rh1 Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Ginsenoside Rh1

Catalog No.: CFN99970

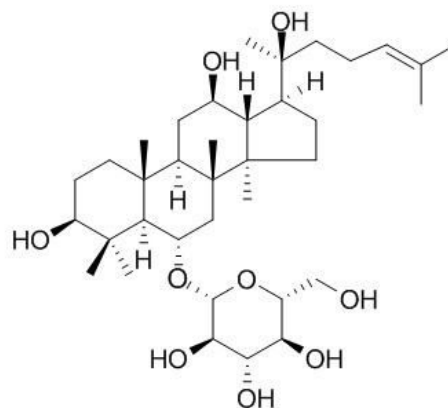
Cas No.: 63223-86-9

Purity: > 98%

M.F: C₃₅H₆₀O₉

M.W: 624.85

Physical Description: White powder



Synonyms: (2R,3R,4S,5S,6R)-2-[[[(3S,5R,6S,8R,10R,12R,14R,17S)-3,12-dihydroxy-17-[(2S)-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]phenanthren-6-yl]oxy]-6-(hydroxymethyl)oxane-3,4,5-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]

Ginsenoside Rh1 has antiallergic action , may originate from its cell membrane-stabilizing and anti-inflammatory activities, and can improve the inflammation caused by allergies.^[1]

Ginsenoside Rh1 (2065mg/kg, oral) suppresses body and epididymal fat weight gains and plasma triglyceride level in DIO mice, also inhibits the expressions of PPAR- γ , C/EBP- α , fatty acid synthase, adipocyte fatty acid-binding protein, as well as F4/80, CD68, tumor necrosis factor (TNF)- α , interleukin (IL)-6, and IL-1 β in DIO mice by real time PCR analysis, suggests it may ameliorate obesity, by inhibiting adipocyte differentiation and inflammation.^[2]

Ginsenoside Rh1 can upregulate glucocorticoid receptor (GR) level, suggests Rh1 may improve glucocorticoid efficacy in hormone-dependent diseases, it may enhance the effect of Dex in the treatment of MRL/lpr mice through regulating CD4⁺ T cells activation and Th1/Th2 balance.^[3]

Ginsenoside Rh1 can inhibit MAPK and PI3K/Akt signaling pathways and downstream transcription factors such as NF- κ B and AP-1, which play an important role in MMP gene expressions, suggests that ginsenoside Rh1 may have a therapeutic potential for malignant gliomas.^[4]

Ginsenoside Rh1 inhibits IFN-gamma-induced JAK/STAT and ERK signaling pathways and downstream transcription factors, and thereby iNOS gene expression, thus, the inhibition of microglial activation by ginsenoside Rh1 may provide potential therapeutic strategy for various neuroinflammatory diseases.^[5]

Ginsenoside Rh1(Rh1) has been reported to possess antiallergic and anti-inflammatory activities, treatment of Rh1 can decrease the levels of MCP-1 and CCR2 and the expression of VLA5 and activated β 1 integrin on the cell surface, and attenuate the phosphorylation of MAPKs, the inhibitory effects of Rh1 on monocyte function should be regarded as a promising new anti-inflammatory response with a potential therapeutic role

against inflammation-dependent diseases.^[6]

[Solvent]

Pyridine, Methanol, Ethanol, Hot water, etc.

[HPLC Method]^[7]

Mobile phase: 0.01% Acetic acid in water- 0.01% Acetic acid in acetonitrile, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 203 nm.

[Storage]

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

[References]

- [1] Park E K, Choo M K, Han M J, *et al. Int. Arch. Allergy Immun.*, 2004, 133(2):113-20.
- [2] Gu W, Kim K A, Kim D H. *Biol. Pharm. Bull.*, 2013, 36(1):102-7.
- [3] Feng Y, Wang C, Cheng S, *et al. Evid.-based. Compl. Alt.* , 2014, 2015:1-8.
- [4] Jung J S, Ahn J H, Le T K, *et al. Neurochem. Int.*, 2013, 63(2):80-6.
- [5] Jung J S, Kim DHKim H S. *Biochem. Bioph. Res. Co.*, 2010, 397(2):323-8.
- [6] Choi Y J, Yoon J H, Cha S W, *et al. Fitoterapia*, 2011, 82(6):911-9.
- [7] Zheng L Y, Hu C C, Fan X H, *et al. J. Liq. Chromatogr. R. T.*, 2005, 29(11):1575-87.

[Contact]

Address:

S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,

Email: info@chemfaces.com

Tel: +86-27-84237783

Fax: +86-27-84254680

Web: www.chemfaces.com

China

Tech Support: service@chemfaces.com