

Ginsenoside Rk1 Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Ginsenoside Rk1

Catalog No.: CFN92644

Cas No.: 494753-69-4

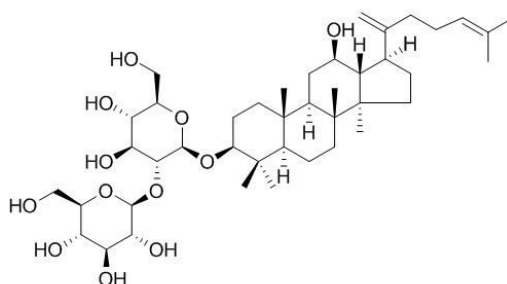
Purity: > 98%

M.F: C₄₂H₇₀O₁₂

M.W: 767.0

Physical Description: Powder

Synonyms: 3β,12β-dihydroxydammar-20(21),24-diene-3-O-β-D-glucopyranosyl(1→2)-β-D-glucopyranoside.



[Intended Use]

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

[Source]

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

[Biological Activity or Inhibitors]

Ginsenoside Rk1 has anti-tumor activity in human hepatocellular carcinoma cells through inhibition of telomerase activity and induction of apoptosis.^[1]

Combination of ginsenoside Rk1 with an autophagy inhibitor, such as bafilomycin A1 or beclin 1 siRNA, can enhance the anti-tumor effect of Rk1, these results imply that autophagy functions as a survival mechanism in HepG2 cells against Rk1-induced apoptosis, suggest that the use of autophagy inhibitors in combination with Rk1 as an effective anti-cancer regimen in HepG2 cells.^[2]

Ginsenoside Rk1 has antiplatelet aggregation; the inhibition effects induce a decreased 12-hydroxy-5,8,10,14-eicosatetraenoic acid (12-HETE) level, which is related to 12-LOX translocation resulting from decreased Ca(2+) levels. ^[3]

Ginsenoside Rk1 has antioxidant activity.^[4]

Ginsenoside Rk1 anti-inflammatory effect , it can significantly inhibit COX-2 and iNOS gene expression in a dose-dependent manner.^[5]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[6]

HPLC-ELSD:

Mobile phase: Acetonitrile-H₂O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 35 °C;

Drift tube temperature: 110 °C;

Flow rate of gas : 2.4L/min.

[Storage]

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

[References]

- [1] Kim Y J, Kwon H C, Ko H, *et al. Biol. Pharm. Bull.*, 2008, 31(5):826-30.
- [2] Hyeonseok K O, Kim Y J, Park J S, *et al. Agricultural and Biological Chemistry*, 2009, 73(10):2183-9.
- [3] Ju H K, Jin G L, Mi K P, *et al. J. Proteome Res.*, 2012, 11(10):4939-46.
- [4] Hwang I G, Kim H Y, Joung E M, *et al. Food Sci. Biotechnol.*, 2010, 19(4):941-9.
- [5] Lee S M. *Phytother. Res.*, 2014, 28(12):1893-6.
- [6] Yu H S, Zhang L J, Song X B, *et al. China Journal of Chinese Materia Medica*, 2013, 38(22):3910-7.

[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