Natural Products

ChemFaces

Ginsenoside Rk1 Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Ginsenoside Rk1

Catalog No.: CFN92818

Cas No.: 364779-14-6

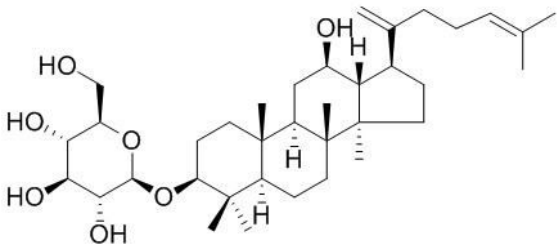
Purity: > 98%

M.F: $C_{36}H_{60}O_7$

M.W: 604.9

Physical Description: Powder

Synonyms:



[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]

Ginsenoside Rk1(RK1) has anti-tumor activity in human hepatocellular carcinoma cells through inhibition of telomerase activity and induction of apoptosis.[1]

Ginsenoside Rk1 has anti-platelet aggregation activity.[2]

Ginsenoside Rk1 may be a promising compound to induce apoptosis through both extrinsic and intrinsic pathways in SK-MEL-2 cells.[3]

Ginsenoside Rk1 can strongly inhibit permeability induced by VEGF, advance glycation end-product, thrombin, or histamine in human retinal endothelial cells, it reduces the vessel leakiness of retina in a diabetic mouse model; this anti-permeability activity of Rk1 is correlated with enhanced stability and positioning of tight junction proteins at the boundary between cells; Rk1 induces phosphorylation of myosin light chain and cortactin, which are critical regulators for the formation of the cortical actin ring structure and endothelial barrier; suggests that ginsenoside Rk1 could be exploited as a novel prototype compound for the prevention of human diseases that are characterized by vascular leakage.[4]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][5]

Mobile phase: Acetonitrile -H2O,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 203 nm.

[Storage]

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

[References]

[1] Kim Y J, Kwon H C, Ko H, *et al. Biol.Pharmaceut. Bull., 2008, 31(5):826-30.*

[2] Ju H K, Jin G L, Mi K P, *et al.. J. Proteome Res., 2012, 11(10):4939-46.*

[3] Ji S K, Joo E J, Chun J, *et al. Arch. Pharm. Res., 2012, 35(4):717-22.*

[4] Maeng Y S, Maharjan S, Kim J H, *et al. Plos One, 2013, 8(7):e68659-e68659.*

[5] Zang P, Zhang P, Gao Y, *et al. J. Med. Plant Res., 2011, 5(23):5513-6.*

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