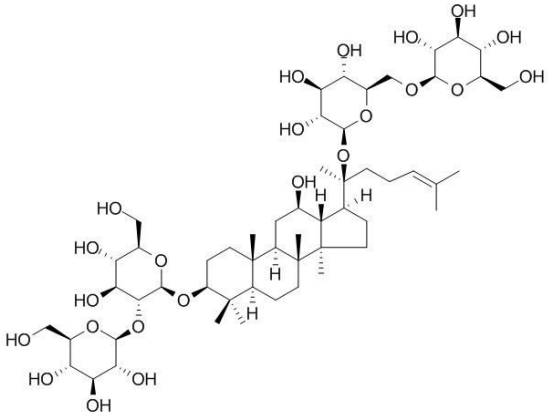
Natural Products

ChemFaces

Ginsenoside Rb1 Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Ginsenoside Rb1

Catalog No.: CFN99964

Cas No.: 41753-43-9

Purity: >=98%

M.F: $C_{54}H_{92}O_{23}$

M.W: 1109.29

Physical Description: White powder

Synonyms:2-O-β-Glucopyranosyl-(3β,12β)-20-[(6-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]-12-hydroxydammar-24-en-3-yl β-D-glucopyranoside; Arasaponin E1; Gynosaponin C; Panaxoside Rb1; Sanchinoside E1; Sanchinoside Rb1.

[Intended Use]

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

[Source]

The root and rhizome of *Panax ginseng C. A. Mey..*

[Biological Activity or Inhibitors]

Ginsenosides, a class of ginseng compounds of herbal medicine, have therapeutic potential for the neuroprotection of brain damage after cerebral ischemia because of their anti-oxidant and anti-inflammation activities, ginsenoside Rb1 can represent promising applications as anti-oxidants for the anti-aging treatment of neurological disorders, such as stroke, in elderly patients.[1]

Ginsenoside Rb1 presents cardioprotective effect against I/R or H/R injury which involves in activating Akt, phosphorylating GSK-3 β and inhibiting mPTP opening.[2]

Ginsenoside Rb1 has anti-oxidative effects on NPCs, may offer potential as a potent antioxidant for the treatment of neurological disorders.[3]

Ginsenoside Rb1 possesses protective effects on swimming exercise-induced oxidative stress in mice.[4]

Ginsenosides Rb1 and Rg1 have many molecular targets including the (CREB), which is involved in melanogenesis, they increase melanogenesis and activity in melanocytes by the activation of PKA/CREB/MITF Signaling.[5]

Ginsenoside Rb1, ginsenoside Rg1,and estrogen can significantly enhance OVA-specific IgG responses, lymphocyte proliferation and cytokines mRNA expression and the enhancement could be blocked by pre-injection of an estrogen receptor antagonist ICI 182780, indicating that ginsenoside Rb1, ginsenoside Rg1, and estrogen may exhibit the adjuvant activities through estrogen receptors.[6]

[Solvent]

Pyridine, DMSO, Ethanol, Methanol.

[HPLC Method][7]

Mobile phase: H2O-Acetonitrile=71:29;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 203 nm.

[Storage]

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

[References]

[1] Xiao D, Lei Z, Lu S, *et al. Geriatr Gerontol In, 2015,12(1).*

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[3] Ye J, Yao J P, Wang X, *et al. Mol. Med. Rep., 2016, 13(4):3083-91.*

[4] Qi B, Zhang L, Zhang Z, *et al. Pharmacogn. Mag. , 2014, 10(40):458-63.*

[5] Lin M, Zhang B X, Zhang C, *et al. Evid.-Based. Compl. Al., 2014, 2014(14):892073.*

[6] Li Y, Wu L, Yuan L, *et al. American Journal of Traditional Chinese Veterinary Medicine, 2012,2(7):1-17.*

[7] Ji L N, Feng W H, Wang Z M, *et al. China journal of Chinese materia medica, 2013, 38(17):2798-802.*

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