[ Product Information ]

Name: Ginsenoside Ro

Catalog No.: CFN99147

Cas No.: 34367-04-9

Purity: > 98%

M.F: C_{48}H_{76}O_{19}

M.W: 957.11

Physical Description: Yellow powder

Synonyms: Chikusetsusaponin V; Polysciasaponin P3;

(3beta)-28-(beta-D-Glucopyranosyloxy)-28-oxoolean-12-en-3-yl 2-O-beta-D-glucopyranosyl-beta-D-glucopyranosiduronic acid.

[ 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.
The root of Panax ginseng C. A. Mey.

**[Biological Activity or Inhibitors]**

Ginsenoside-Ro, an oleanane-type saponin, has anti-inflammatory activity, it (10, 50, and 200 mg/kg, p.o.) inhibits an increase in vascular permeability in mice induced by acetic acid and reduces an acute paw edema in rats induced by compound 48/80 or carrageenin; it is effective in hypercoagulable state, increase of connective tissue in the artery and calcium effluence from the bone in adjuvant-induced arthritic rats.[1]

Ginsenoside Ro inhibits the increase of connective tissue in the liver of CCl4-induced chronic hepatitic rats, it shows a stronger inhibitory effect on the GalN-induced acute hepatitic model than those of the aglycone of ginsenoside Ro, oleanolic acid, or glycyrrhizic acid and its aglycone, glycyrrhetinic acid.[2]

Ginsenoside Ro shows inhibitory activity against 5αR with IC(50) values of 259.4 um; it (0.265mg/mouse) to shaved skin inhibited hair re-growth suppression after shaving in the testosterone-treated C57BL/6 mice; suggests that ginsenoside Ro enhances in vivo hair re-growth based on their inhibitory activity against 5αR in the androgenetic alopecia model.[3]

Ginsenoside-Ro increases the production and expression of Th2 cytokine IL-4 and decreases the production and expression of Th1 cytokine IFN-γ in Con A-induced murine splenocytes at concentrations of 2-10 μmol·L⁻¹, it shows immunomodulatory effects by regulating the production and expression of Th1/Th2 cytokines in murine splenocytes.[4]

Ginsenoside Ro exerts anti-apoptosis and anti-inflammation in IL-1β-induced rat chondrocytes, which might be related to NF-κB signal pathway, it might be a potential novel drug for the treatment of osteoarthritis.[5]

Ginsenoside Ro has antioxidative properties against UV-B-induced oxidative stress in human dermal fibroblasts, it possesses a potential skin anti-photoaging property against UV-B radiation in fibroblasts.[6]
**[Solvent]**
Pyridine, DMSO, Methanol, Ethanol, Hot water, etc.

**[HPLC Method]**[7]
Mobile phase: 0.2% Aqueous phosphoric acid -Acetonitrile, gradient elution ;
Flow rate: 1.0 ml/min;
Column temperature: 25 °C;
The wave length of determination: 203 nm.

**[Storage]**
2-8°C, Protected from air and light, refrigerate or freeze.

**[References]**

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