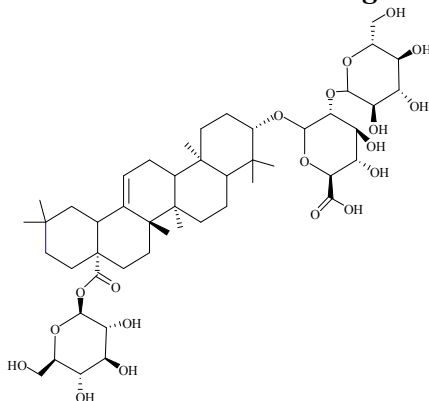


Ginsenoside-Ro from *Panax ginseng* C.A.Mey rhizome.



Product Name: (3beta)-28-(beta-d-glucopyranosyloxy)-28-oxoolean-12-en-3-yl-2-o-beta-d-glucopyranosyl-beta-d-glucopyranosiduronic acid

Product Number: G016048

CAS Number: 34367-04-9

Formula (Hill method): C₄₈H₇₆O₁₉

Formula Weight: 957.11 AMU

Purity(HPLC): ≥ 98.00 %

Stock Status: In Stock

Solubility: 10 mM in DMSO

Mechanisms: Pathways: Others; Target: Others

Biological Activity: Ginsenoside Ro, the predominant ginsenoside in the rhizome, is reported to have anti-inflammatory, anti-hepatitic activities, and showed inhibitory activity against 5αR with IC(50) value of 259.4 μm.

IC50 Value & Target: 259.4 μm (for 5α-reductase)

In Vitro: Ginsenoside Ro exhibited suppressive activities on reactive oxygen species and matrix metalloproteinase-2 elevation in UV-B-irradiated fibroblasts. Ginsenoside Ro could overcome the reduction of the total glutathione contents in UV-B-irradiated fibroblasts. In IL-1β-induced rat chondrocytes, ginsenoside Ro exerted anti-apoptosis and anti-inflammation. Ro could improve IL-1β-induced chondrocytes viability. Ginsenoside Ro could suppress IL-1β-induced apoptosis by inhibiting levels of Bax and Bad, decreasing p53 phosphorylation and promoting the expression of Bcl-xL and PCNA. Ginsenoside Ro inhibited caspase 3 activity. IL-1β-induced inflammation and matrix degradation were also alleviated by Ginsenoside Ro with down-regulating the expression of MMP 3, MMP 9 and COX-2. Moreover, ginsenoside Ro inhibited NF-κB p65 phosphorylation induced by IL-1β [2].

In Vivo: Topical administration of ginsenoside Ro (0.2 mg/mouse) to shaved skin inhibited hair re-growth suppression after shaving in the testosterone-treated C57BL/6 mice. Ginsenoside Ro showed inhibitory activity against 5αR with IC(50) value of 259.4 μm [3].

References:

- [1]. Kang HJ, et al. Antioxidative properties of ginsenoside Ro against UV-B-induced oxidative stress in human dermal fibroblasts. *Biosci Biotechnol Biochem*. 2015 Jul 27;1-4.
- [2]. Zhang XH, et al. Ginsenoside Ro suppresses interleukin-1β-induced apoptosis and inflammation in rat chondrocytes by inhibiting NF-κB. *Chin J Nat Med*. 2015 Apr;13(4):283-9.
- [3]. Murata K, et al. Effects of ginseng rhizome and ginsenoside Ro on testosterone 5α-reductase and hair re-growth in testosterone-treated mice. *Phytother Res*. 2012 Jan;26(1):48-53.
- [4]. Matsuda H, et al. Anti-hepatitic activity of ginsenoside Ro. *Planta Med*. 1991 Dec;57(6):523-6.
- [5]. Matsuda H, et al. Anti-inflammatory activity of ginsenoside ro. *Planta Med*. 1990 Feb;56(1):19-23.

Caution: Not fully tested. For research purposes only!

E-mail: sales@star-ocean-biotech.com