

Ginsenoside Rb2

Catalog No: tcsc3830



Available Sizes

Size: 5mg

Size: 10mg



Specifications

CAS No:

11021-13-9

Formula:

$C_{53}H_{90}O_{22}$

Pathway:

GPCR/G Protein

Target:

GPR120

Purity / Grade:

>98%

Solubility:

H₂O : ≥ 100 mg/mL (92.66 mM); DMSO : 9.5 mg/mL (8.80 mM); Need ultrasonic and warming)

Alternative Names:

Ginsenoside C

Observed Molecular Weight:

1079.27

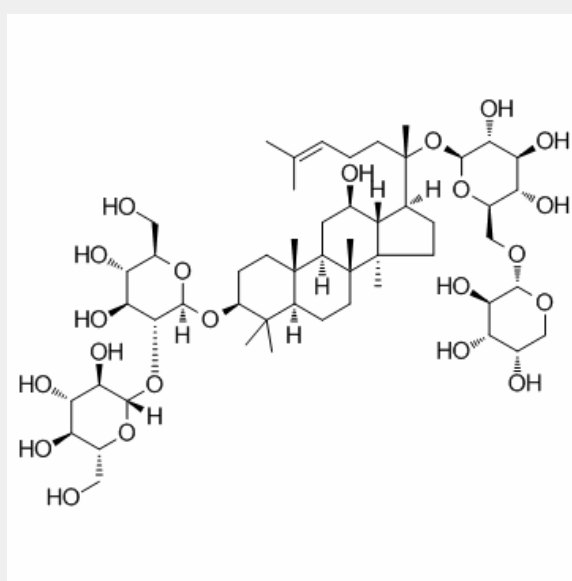
Product Description

Ginsenoside Rb2 is one of the main bioactive components of ginseng extracts. Rb2 can upregulate **GPR120** gene expression.

IC50 & Target: GPR120^[1]

In Vitro: Ginsenoside Rb2 pre-treatment enhances the anti-inflammatory effect of α -linolenic acid (ALA) and that the enhancing effect is strictly dependent on GPR120 activation. Ginsenoside Rb2 exerts anti-inflammatory effect in lipopolysaccharide (LPS)-stimulated mouse macrophage RAW264.7 cells in vitro by increasing GPR120 expression and subsequently enhancing ω -3 fatty acid-induced GPR120 activation. Ginsenoside Rb2 improves glucose metabolism in hepatocytes by activating AMPK and reduces cholesterol and triacylglycerol levels in 3T3-L1 cells by reducing oxidative damage. Ginsenoside Rb2 exerts anti-apoptosis effects in murine bone marrow-derived mesenchymal stem cells (BMMSCs). MTT assay results show no obvious cytotoxicity of Ginsenoside Rb2 (up to 100 μ M) toward RAW264.7 cells in the absence or presence of ALA. The influence of Rb2 on GPR120 expression in RAW264.7 macrophages is investigated by treating the cells with Ginsenoside Rb2 (0.1-100 μ M) for 12 h followed by harvesting and lysis. Subsequent Western blot analysis shows that expression of GPR120 is dose-dependently upregulated by Ginsenoside Rb2. Real-time PCR results indicate that incubation of RAW264.7 macrophages with Ginsenoside Rb2 (10 μ M) for 12 h leads to a 2.8-fold increase in GPR120 mRNA expression. In addition, this increase in GPR120 expression stimulated by Ginsenoside Rb2 is time dependent and begins as early as 6 h. These results indicate that Rb2 upregulates GPR120 expression in a dose- and time-dependent manner in RAW264.7 macrophages^[1].

In Vivo: Ginsenoside Rb2 is an antiviral reagent to protect against rotavirus (RV) infection. When various dosages of Ginsenoside Rb2 (25 to 250 mg/kg) are administered 3, 2 or 1 days before virus challenge, treatment with this Ginsenoside at the dosage of 75 mg/kg 3 days before virus infection most effectively reduces rotavirus (RV) -induced diarrhea. In addition, consecutive administration of Ginsenoside Rb2 (75 mg/kg) 3, 2, and 1 day before virus infection is more effective than single administration on day-3. The consecutive administration of Ginsenoside Rb2 also reduces virus titers in the bowels of RV-infected mice^[2].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!