Web: www.taiclone.com
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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.

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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 μM) 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 μM) 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 μM) 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].