

Isoliquiritigenin

Catalog No: tcsc1745



Available Sizes

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g



Specifications

CAS No:

961-29-5

Formula:

$C_{15}H_{12}O_4$

Pathway:

Metabolic Enzyme/Protease;Autophagy

Target:

Aldose Reductase;Autophagy

Purity / Grade:

>98%

Solubility:

DMSO : \geq 100 mg/mL (390.24 mM); Ethanol : 100 mg/mL (390.24 mM; Need ultrasonic)

Alternative Names:

GU17;ISL;Isoliquiritigen

Observed Molecular Weight:

256.25

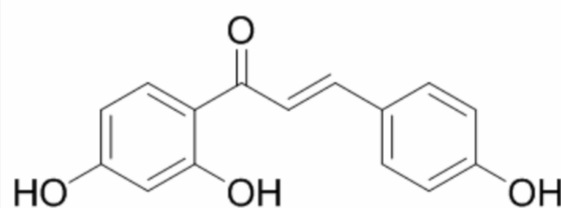
Product Description

Isoliquiritigenin is an anti-tumor flavonoid from the root of *Glycyrrhiza glabra*, which inhibits **aldose reductase** with an **IC₅₀** of 320 nM.

IC50 & Target: IC50: 320 nM (Aldose reductase)

In Vitro: Isoliquiritigenin may prevent diabetic complications through inhibiting rat lens aldose reductase with an IC₅₀ of 320 nM and sorbitol accumulation in human red blood cells with an IC₅₀ of 2.0 μM^[1]. Isoliquiritigenin (100 μM) markedly inhibits the hypoxia-induced prolonged TPS and TR90 of cardiomyocytes. Isoliquiritigenin significantly triggers AMPK Thr172 phosphorylation as compared with vehicle group. Isoliquiritigenin treatment also induces extracellular signal-regulated kinase (ERK) signaling pathway in the cardiomyocytes. Isoliquiritigenin treatment significantly decreases the intracellular ROS levels of isolated cardiomyocytes during hypoxia/reoxygenation^[3]. Isoliquiritigenin not only downregulates IL-6 expression but also significantly decreases levels of phosphorylated ERK and STAT3 and can inhibit phosphorylation levels of ERK and STAT3 induced by recombinant human IL-6, which are critical signaling proteins in IL-6 signaling regulation networks^[4].

In Vivo: Isoliquiritigenin shows concentration-dependent inhibition of the tonic contraction of mouse jejunum induced by various types of stimulants such as CCh (1 mM), KCl (60 mM) and BaCl₂ (0.3 mM) with IC₅₀ values of 4.96±1.97 mM, 4.03±1.34 mM and 3.70±0.58 mM, respectively^[2]. Isoliquiritigenin exhibits significant anti-tumor activity in MM xenograft models and synergistically enhances the anti-myeloma activity of adriamycin^[4].



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