

# 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

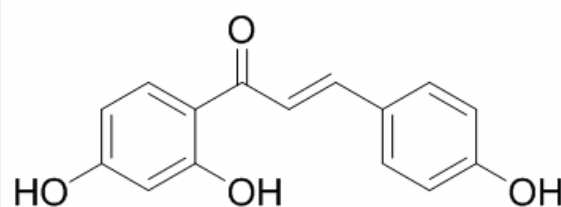
## Product Description

Isoliquiritigenin is an anti-tumor flavonoid from the root of *Glycyrrhiza glabra*, which inhibits **aldose reductase** with an **IC<sub>50</sub>** 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 IC<sub>50</sub> of 320 nM and sorbitol accumulation in human red blood cells with an IC<sub>50</sub> of 2.0 μM<sup>[1]</sup>. 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<sup>[3]</sup>. 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<sup>[4]</sup>.

**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 BaCl<sub>2</sub> (0.3 mM) with IC<sub>50</sub> values of 4.96±1.97 mM, 4.03±1.34 mM and 3.70±0.58 mM, respectively<sup>[2]</sup>. Isoliquiritigenin exhibits significant anti-tumor activity in MM xenograft models and synergistically enhances the anti-myeloma activity of adriamycin<sup>[4]</sup>.



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