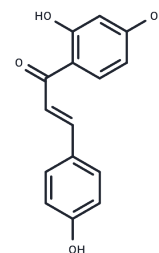


Isoliquiritigenin

Chemical Properties

CAS No. :	961-29-5
Formula:	C ₁₅ H ₁₂ O ₄
Molecular Weight:	256.25
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Isoliquiritigenin (ISL) is a flavonoid natural product that inhibits influenza virus replication (EC ₅₀ =24.7 μM) and aldose reductase activity (IC ₅₀ =320 nM). Isoliquiritigenin has antitumor activity.
Targets(IC ₅₀)	Apoptosis,Reductase,Autophagy,Influenza Virus
In vitro	METHODS: Normal human hepatocyte cell line LO2 and HCC cell line Hep3B were treated with Isoliquiritigenin (30-60 μM) for 24-72 h. Cell viability was measured by MTT assay. RESULTS: Isoliquiritigenin showed significant cytotoxicity against Hep3B cells with an IC ₅₀ of 42.84±2.01 μM at 48 h. This effect was concentration and time dependent. However, at the same Isoliquiritigenin stimulation intensity, the survival of LO2 cells was significantly less affected with an IC ₅₀ >60 μM.[1] METHODS: Human colorectal cancer cells HCT-116 were treated with Isoliquiritigenin (20 μM) for 24 h. Apoptosis was detected by Flow cytometry. RESULTS: Treatment of HCT-116 cells with Isoliquiritigenin resulted in a significant increase in apoptosis (17.26%) in the treated group compared to the NC group (7.37%). [2]
In vivo	METHODS: To assay anti-tumor activity in vivo, Isoliquiritigenin (50 mg/kg) was injected intraperitoneally into BALB/c-nu/nu mice bearing Hep3B xenografts once daily for three weeks. RESULTS: Isoliquiritigenin-treated mice had reduced tumor burden in terms of mean tumor size or xenograft weight. [1]

Solubility Information

Solubility	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5.1 mg/mL (19.9 mM),Suspension. DMSO: 60 mg/mL (234.15 mM),Sonication is recommended. Ethanol: 22 mg/mL (85.85 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9024 mL	19.5122 mL	39.0244 mL
5 mM	0.7805 mL	3.9024 mL	7.8049 mL
10 mM	0.3902 mL	1.9512 mL	3.9024 mL
50 mM	0.078 mL	0.3902 mL	0.7805 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

- Huang Y, et al. Isoliquiritigenin inhibits the proliferation, migration and metastasis of Hep3B cells via suppressing cyclin D1 and PI3K/AKT pathway. Biosci Rep. 2020 Jan 31;40(1):BSR20192727.
- Jung M A, Song H K, Jo K, et al. Gleditsia sinensis Lam. aqueous extract attenuates nasal inflammation in allergic rhinitis by inhibiting MUC5AC production through suppression of the STAT3/STAT6 pathway. Biomedicine & Pharmacotherapy. 2023, 161: 114482.
- The TCM Monomer Isoliquiritigenin Targeting METTL3, Shows Potential Anti-Leukemia Activity
- Luo F, et al. Isoliquiritigenin Inhibits the Growth of Colorectal Cancer Cells through the ESR2/PI3K/AKT Signalling Pathway. Pharmaceuticals (Basel). 2023 Dec 27;17(1):43.
- Kanazawa M, et al. Eur Urol, 2003, 43(5), 580-586.
- Ma J, et al. Planta Med, 2001, 67(8), 754-757.
- Chen G, et al. Phytother Res, 2009, 23(4), 498-506.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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