Licochalcone C

Cat. No.: HY-N0374

CAS No.: 144506-14-9

Molecular Formula: $C_{21}H_{22}O_4$

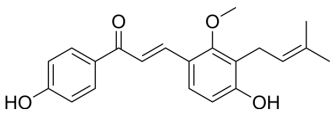
Molecular Weight: 338.4

Target: Glucosidase

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (98.49 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9551 mL	14.7754 mL	29.5508 mL
	5 mM	0.5910 mL	2.9551 mL	5.9102 mL
	10 mM	0.2955 mL	1.4775 mL	2.9551 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.39 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.39 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Licochalcone C could inhibit α-glucosidase, with IC_{50}s of <100 nM and 92.43 μM for α-glucosidase and protein tyrosine phosphatase 1B (PTP1B), respectively.

IC_{50} & Target

IC50: <100 nM (α-glucosidase), 92.43 μM (PTP1B)[1].

In Vitro

Licochalcone C could inhibit α- glucosidase, with IC50s of <100 nM and 92.43 μM for α- glucosidase and PTP1B, respectively [1]. It is also indicated that Licochalcone C induces T24 cell apoptosis in a concentration?dependent manner. Licochalcone C treatment reduces the levels of the anti?apoptotic mRNAs (Bcl-2, Bcl-w and Bcl-XL) and increases expression of the pro-apoptotic mRNAs (Bax and Bim). The Bcl-2 family inhibitor (ABT-737) reduces apoptosis induced by licochalcone C in T24 cells[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Front Cell Dev Biol. 2021 Jun 11;9:684393.

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REFERENCES

[1]. Zhenghong Guo, et al. Chemical profile and inhibition of α-glycosidase and protein tyrosine phosphatase 1B (PTP1B) activities by flavonoids from licorice (Glycyrrhiza uralensis Fisch). journal of functional foods 14 (2015) 324-336.

[2]. PENGLONG WANG, et al. Licochalcone C induces apoptosis via B-cell lymphoma 2 family proteins in T24 cells. Mol Med Rep. 2015 Nov;12(5):7623-8.

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