

Licochalcone D

Chemical Properties

CAS No. : 144506-15-0

Formula: C₂₁H₂₂O₅

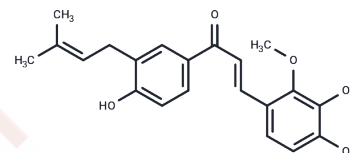
Molecular Weight: 354.4

Storage:

Keep away from direct sunlight, Keep away from moisture, Store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Licochalcone D may be a potential drug for human melanoma treatment by inhibiting proliferation, inducing apoptosis via the mitochondrial pathway and blocking cell migration and invasion. Licochalcone D has cardioprotective potential against myocardial ischemia/reperfusion injury in langendorff-perfused rat hearts. Licochalcone D has anti-inflammatory activity, it shows suppression ability of nitric oxide (NO) production. Licochalcone D has anti-allergic activity, it suppresses degranulation by decreasing the intracellular Ca ²⁺ level and tyrosine phosphorylation of ERK in RBL-2H3 cells.
Targets(IC50)	Apoptosis, ERK, NF-κB, Reactive Oxygen Species, ROS

Solubility Information

Solubility	DMSO: 150 mg/mL (423.25 mM), Sonication is recommended. Ethanol: Soluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.82 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8217 mL	14.1084 mL	28.2167 mL
5 mM	0.5643 mL	2.8217 mL	5.6433 mL
10 mM	0.2822 mL	1.4108 mL	2.8217 mL
50 mM	0.0564 mL	0.2822 mL	0.5643 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Wang P, et al. Licochalcone C induces apoptosis via B-cell lymphoma 2 family proteins in T24 cells[J]. *Molecular Medicine Reports*, 2015, 12(5):7623.

Lu X, Ji Q, Pan H, et al. IL-23p19 deficiency reduces M1 macrophage polarization and improves stress-induced cardiac remodeling by alleviating macrophage ferroptosis in mice. *Biochemical Pharmacology*.2024: 116072.

Yuan X, et al. Cardioprotective Effect of Licochalcone D against Myocardial Ischemia/Reperfusion Injury in Langendorff-Perfused Rat Hearts[J]. *Plos One*, 2015, 10(6):e20128375.

Kim S J, et al. Synthesis of licochalcone analogues with increased anti-inflammatory activity[J]. *Bioorganic & Medicinal Chemistry Letters*, 2014, 24(1):181-185.

Tanifuji S, et al. Licochalcones suppress degranulation by decreasing the intracellular Ca²⁺ level and tyrosine phosphorylation of ERK in RBL-2H3 cells.[J]. *International Immunopharmacology*, 2010, 10(7):769-776.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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