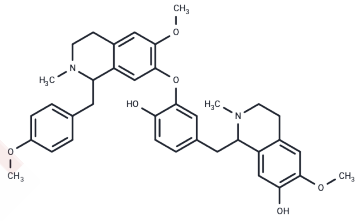
Data Sheet (Cat.No.T5S1103)

TargetMol

Isoliensinine

Chemical Properties



CAS No. : 6817-41-0

Formula: C37H42N2O6

Molecular Weight: 610.74

Storage: 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	Isoliensinine (Isoliensinin) is a natural product, a bisbenzylisoquinoline alkaloid. Isoliensinine has antitumor, antioxidant, anti-inflammatory, and antiarrhythmic activities.
Targets(IC50)	Apoptosis,Antioxidant
In vitro	**METHODS**: Human breast cancer cells MDA-MB-231 were treated with Isoliensinine (1-40 μM) for 24-72 h. Cell viability was measured by CCK-8 Assay. **RESULTS**: Isoliensinine exhibited anticancer properties in MDA-MB-231 cells, with estimated IC50 values of 108.1 μM, 22.78 μM, and 18.34 μM at 24 h, 48 h, and 72 h, respectively. [1] **METHODS**: Cervical cancer cells C33A, Caski, HeLa and SiHa were treated with Isoliensinine (5-40 μM) for 24 h. The expression levels of target proteins were detected by Western Blot. **RESULTS**: Isoliensinine significantly reduced CDK2 and cyclin E at the protein level in a dose-dependent manner in the four cervical cancer cells. [2]
In vivo	**METHODS**: To investigate the effects on pulmonary fibrosis in mice, Isoliensinine (10-40 mg/kg) was orally administered three times daily for 14 days to Kungming mice with bleomycin (BLM)-induced pulmonary fibrosis. **RESULTS**: Isoliensinine exerted a significant inhibitory effect on BLM-induced pulmonary fibrosis, which may be due to its antioxidant and/or anti-inflammatory activity as well as inhibition of BLM-induced overexpression of TNF-α and TGF-β1. [3]

Solubility Information

Solubility	Chloroform, Dichloromethane, Ethyl Acetate, Acetone, etc.: Soluble, DMSO: 55 mg/mL (90.05 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5.5 mg/mL (9.01 mM),Solution. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6374 mL	8.1868 mL	16.3736 mL
5 mM	0.3275 mL	1.6374 mL	3.2747 mL
10 mM	0.1637 mL	0.8187 mL	1.6374 mL
50 mM	0.0327 mL	0.1637 mL	0.3275 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

Zhang X, et al. Isoliensinine induces apoptosis in triple-negative human breast cancer cells through ROS generation and p38 MAPK/JNK activation. Sci Rep. 2015 Jul 29;5:12579.
Song Y, Li M, Li Y, et al.Identification of Isoliensinine as a Ferroptosis Suppressor with Iron-Chelating Activity. Journal of Natural Products.2024
Li HL, et al. Isoliensinine induces cervical cancer cell cycle arrest and apoptosis by inhibiting the AKT/GSK3α pathway. Oncol Lett. 2022 Jan;23(1):8.
Xiao JH, et al. Inhibitory effects of isoliensinine on bleomycin-induced pulmonary fibrosis in mice. Planta Med. 2005 Mar;71(3):225-30.