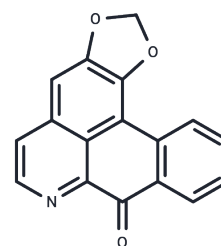


Liriodenine

Chemical Properties

CAS No. :	475-75-2
Formula:	C ₁₇ H ₉ NO ₃
Molecular Weight:	275.26
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Liriodenine is a natural alkaloid that induces apoptosis in various cancer cells by targeting caspase-3 and caspase-9, and exhibits antimicrobial, antifungal, antitumour, antiviral, and antiplatelet aggregation activities.
Targets(IC50)	Apoptosis, Antiviral, Caspase, Antibacterial, Antifungal
In vitro	<p>Methods: Liriodenine (0.16-20 µg/mL, 48 hours) was used to treat human oral epidermoid carcinoma (KB), human colon cancer (Col-2 and HT-29), human breast cancer (MCF-7), human lung cancer (Lu-1 and A549), rat glioma (ASK), and noncancerous human embryonic kidney cells (HEK-293), and cytotoxicity was determined using the sulforhodamine B assay.</p> <p>Results: Liriodenine showed IC50 values of 9.60 µM, 11.02 µM, 10.62 µM, 9.20 µM and 8.07 µM for KB, HT-29, MCF-7, A549, ASK, and HEK-293 cells, respectively. [2]</p>
In vivo	<p>Methods: Liriodenine (0.01, 0.1 mg/kg, intravenous) was administered to rats to determine whether the effective antiarrhythmic dose of 0.01 mg/kg liriodenine has an effect on left ventricular (LV)-arterial coupling in Wistar rats.</p> <p>Results: Liriodenine at a dose of 0.01 mg/kg did not cause significant changes in basal heart rate (HR), cardiac output (CO), LV end-systolic pressure (Pes), Ea, Ees, and Q load, whereas liriodenine at a dose of 0.1 mg/kg caused a significant decrease in HR by 2.0%, a significant increase in CO by 5.8%, but no significant change in Pes. In addition, administration of 0.1 mg/kg liriodenine to rats significantly decreased Ees by 8.5% and Ea by 10.6%, but did not change Q load. [3]</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6329 mL	18.1646 mL	36.3293 mL
5 mM	0.7266 mL	3.6329 mL	7.2659 mL
10 mM	0.3633 mL	1.8165 mL	3.6329 mL
50 mM	0.0727 mL	0.3633 mL	0.7266 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

Liriodenine induces the apoptosis of human laryngocarcinoma cells via the upregulation of p53 expression. *Oncol Lett.* 2015 Mar;9(3):1121-1127.

Anantachoke N, et al. Cytotoxic compounds from the leaves and stems of the endemic Thai plant *Mitrephora sirikitiae*. *Pharm Biol.* 2020 Dec;58(1):490-497.

Chang KC, et al. Mechanical effects of liriodenine on the left ventricular-arterial coupling in Wistar rats: pressure-stroke volume analysis. *Br J Pharmacol.* 2001 May;133(1):29-36.

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