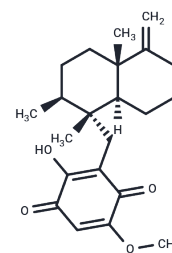


Ilimaquinone

Chemical Properties

CAS No. :	71678-03-0
Formula:	C ₂₂ H ₃₀ O ₄
Molecular Weight:	358.48
Storage:	Store at low temperature 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	Ilimaquinone is a natural sesquiterpenoid quinone and sponge metabolite capable of inducing cancer cell apoptosis. It activates cell death factors such as Bcl-2 and Bcl-xL, reduces PDK1 activity, activates p53, and downregulates β -Catenin, among other effects.
Targets(IC50)	Apoptosis,Bcl-2 Family,HIV Protease,Antibacterial,PDK,p53,Wnt/beta-catenin
In vitro	Ilimaquinone exhibits concentration-dependent antiproliferative effects on multiple cancer cell lines, including prostate cancer cells PC-3 and LNCaP, non-small cell lung cancer cells A549, and liver cancer cells Hep3B. At concentrations ranging from 0.3-30 μ M with a treatment duration of 48 hours, Ilimaquinone effectively inhibits cell proliferation, with corresponding GI ₅₀ values of 2.6 μ M (PC-3), 5.8 μ M (DU145), 4.6 μ M (LNCaP), 4.9 μ M (MG63), 4.1 μ M (A549), and 12.0 μ M (Hep3B) [1].
In vivo	In male SD rats, after oral administration of Ilimaquinone (at a dose of 10 mg/kg), due to its high plasma clearance rate (2.95 \pm 0.53 L/h/kg), the drug exhibited a relatively short terminal elimination half-life (T _{1/2} = 1.2 \pm 0.3 hours) [2].

Solubility Information

Solubility	Hexane: Soluble Methanol: Soluble DMSO: 20 mg/mL (55.79 mM),Sonication is recommended. Ethanol: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7896 mL	13.9478 mL	27.8956 mL
5 mM	0.5579 mL	2.7896 mL	5.5791 mL
10 mM	0.279 mL	1.3948 mL	2.7896 mL
50 mM	0.0558 mL	0.279 mL	0.5579 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

Pin-Hsuan Lu, et al. Ilimaquinone, a Marine Sponge Metabolite, Displays Anticancer Activity via GADD153-mediated Pathway. *Eur J Pharmacol.* 2007 Feb 5;556(1-3):45-54.

Heebin Son, et al. Stereo-Selective Pharmacokinetics of Ilimaquinone Epimers Extracted From a Marine Sponge in Rats. *Mar Drugs.* 2019 Mar 17;17(3):171.

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