

Lawsone methyl ether

Chemical Properties

CAS No. : 2348-82-5

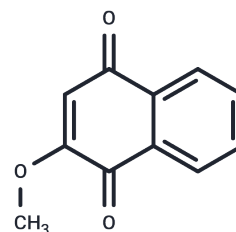
Formula: C₁₁H₈O₃

Molecular Weight: 188.18

Store at low temperature

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	Lawsone methyl ether (2-Methoxy-1,4-naphthoquinone) induces apoptosis in A549 cells independently of cell cycle arrest, mediated by JNK and p38 MAPK signaling pathways. These pathways are activated due to oxidative DNA damage from increased ROS generation in MNQ-treated A549 cells.
Targets(IC50)	Apoptosis, Antibacterial, Antifungal

Solubility Information

Solubility	DMSO: 26.32 mg/mL (139.87 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.3141 mL	26.5703 mL	53.1406 mL
5 mM	1.0628 mL	5.3141 mL	10.6281 mL
10 mM	0.5314 mL	2.657 mL	5.3141 mL
50 mM	0.1063 mL	0.5314 mL	1.0628 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

Ong J Y H , Yong P V C , Lim Y M , et al. 2-Methoxy-1,4-naphthoquinone (MNQ) induces apoptosis of A549 lung adenocarcinoma cells via oxidation-triggered JNK and p38 MAPK signaling pathways[J]. Life Sciences, 2015, 135: 158-164.

Parat V, Onteniente B, Maruotti J. A high-throughput screening platform for pigment regulating agents using pluripotent stem cell derived melanocytes. Experimental Dermatology. 2020

Zhang H, Cai J, Li C, et al. Wogonin inhibits latent HIV-1 reactivation by downregulating histone crotonylation. Phytomedicine. 2023: 154855.

Parat V, Onteniente B, Maruotti J. A high-throughput screening platform for pigment regulating agents using pluripotent stem cell-derived melanocytes[J]. Experimental Dermatology. 2020

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