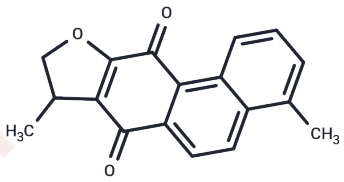
Data Sheet (Cat.No.TN1588)

TargetMol

Dihydroisotanshinone I

Chemical Properties



CAS No. : 20958-18-3

Formula: C18H14O3

Molecular Weight: 278.31

Storage: 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	Dihydroisotanshinone I is a natural product isolated from the dried roots of Salvia miltiorrhiza, a traditional Chinese medicine, and exhibits various biological activities. Dihydroisotanshinone I alleviates menadione-induced liver injury through antioxidant effects such as scavenging free radicals and inhibiting lipid peroxidation; it also inhibits the migration of prostate cancer cells and induces cancer cell apoptosis.
Targets(IC50)	Apoptosis,Free radical scavengers,Lipid
In vitro	Dihydroisotanshinone I induces cell cycle G1 arrest by inhibiting the expression of cyclin D1, cyclin E1, CDK2, CDK4, CDK6, p-Rb, E2F1 and SKP2, and suppresses the proliferation of human osteosarcoma 143B cells in a dose- and time-dependent manner. Dihydroisotanshinone I induces apoptosis via activating caspase-3, caspase-8, caspase-9 and cleaving PARP, and inhibits cell migration by down-regulating VCAM-1 and ICAM-1.
In vivo	In xenograft tumor models, Dihydroisotanshinone I inhibits the proliferation of Hela human cervical cancer cells. It enhances radiation-induced apoptosis and significantly inhibits proliferation in Hela cells mainly by prolonging radiation-induced G2/M arrest and reducing the expression levels of Bcl-XL, Bcl-2 and HPV E6 protein.

Solubility Information

Solubility	DMSO: 5.00 mg/mL (17.97 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5931 mL	17.9656 mL	35.9312 mL
5 mM	0.7186 mL	3.5931 mL	7.1862 mL
10 mM	0.3593 mL	1.7966 mL	3.5931 mL
50 mM	0.0719 mL	0.3593 mL	0.7186 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

Chen X, et al. 15,16-dihydrotanshinone I induces apoptosis and inhibits the proliferation, migration of human osteosarcoma cell line 143B in vitro[J]. Anti-cancer agents in medicinal chemistry. 2015, 15(999): 1234-1242.
F W,et al. Blockade of TNF-α-induced NF-κB signaling pathway and anti-cancer therapeutic response of dihydrotanshinone I.[J]. International Immunopharmacology. 2015, 28(1): 764-772.
Ye Y, et al. Combination treatment with dihydrotanshinone I and irradiation enhances apoptotic effects in human cervical cancer by HPV E6 down-regulation and caspases activation[J]. Molecular & Cellular Biochemistry. 2012, 363 (1-2): 191-202.