

2-(cyclohexylmethyl)-Plumbagin

Chemical Properties

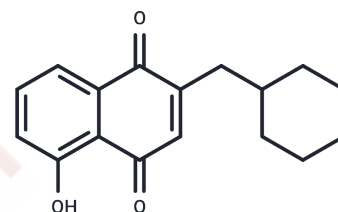
CAS No. :

Formula: C₁₇H₁₈O₃

Molecular Weight: 270.30

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	2-(Cyclohexylmethyl)-Plumbagin, a naphthoquinone derivative, exhibits selective cytotoxicity towards PANC-1 human pancreatic cancer cells under nutrient-deprived conditions—a situation akin to the pancreatic cancer tumor microenvironment—over those in nutrient-rich settings, with PC50 values of 0.11 and 47.2 μ M, respectively. At a 1 μ M concentration, it triggers apoptosis in PANC-1 cells. Furthermore, this compound specifically inhibits the phosphorylation of Akt and mammalian target of rapamycin (mTOR) in PANC-1 cells under nutrient scarcity. In a MiaPaCa-2 pancreatic cancer mouse xenograft model, it significantly reduces tumor volume and weight when administered at 50 and 250 μ g/animal dosages five times weekly.
Targets(IC50)	Others

Solubility Information

Solubility	Ethanol: Slightly soluble DMSO: Slightly soluble DMF: 1 mg/mL (3.7 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	3.6996 mL	18.498 mL	36.9959 mL
5 mM	0.7399 mL	3.6996 mL	7.3992 mL
10 mM	0.370 mL	1.8498 mL	3.6996 mL
50 mM	0.074 mL	0.370 mL	0.7399 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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