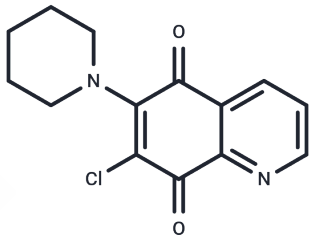
Data Sheet (Cat.No.T28469)

PT-262

Chemical Properties



CAS No. : 86811-36-1

Formula: C14H13ClN2O2

Molecular Weight: 276.72

Storage: Keep away from moisture,Keep away from direct sunlight
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	PT-262 is a potent Rho-associated protein kinase (ROCK) inhibitor with an IC50 value of approximately 5 μM, and it induces mitochondrial membrane potential loss, enhances caspase-3 activation, and promotes apoptosis, while concurrently inhibiting ERK and CDC2 phosphorylation through a p53-independent signaling pathway, disrupting cytoskeletal organization and cell migration, and collectively exerting broad anticancer activity that makes PT-262 a valuable tool for mechanistic cancer biology and signal transduction research.
Targets(IC50)	ERK,CDK,ROCK
In vitro	In A549 lung carcinoma cells, treatment with PT-262 (5-40 μM) inhibited proliferation and promoted G2/M phase arrest by inhibiting CDC2 and ERK phosphorylation. It also triggered mitochondrial dysfunction and Caspase-3 activation, leading to apoptosis [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (289.1 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6138 mL	18.0688 mL	36.1376 mL
5 mM	0.7228 mL	3.6138 mL	7.2275 mL
10 mM	0.3614 mL	1.8069 mL	3.6138 mL
50 mM	0.0723 mL	0.3614 mL	0.7228 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

Tsai CC, et al. 7-Chloro-6-piperidin-1-yl-quinoline-5,8-dione (PT-262), a novel ROCK inhibitor blocks cytoskeleton function and cell migration. Biochem Pharmacol. 2011 Apr 1;81(7):856-65.
Chih-Chien Tsai, et al. 7-Chloro-6-piperidin-1-yl-quinoline-5,8-dione (PT-262), a novel ROCK inhibitor blocks cytoskeleton function and cell migration. Biochem Pharmacol. 2011 Apr 1;81(7):856-65.