

PI3K/AKT-IN-1

Chemical Properties

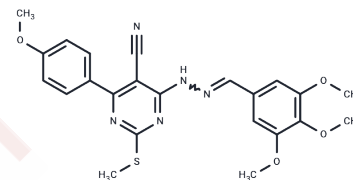
CAS No. : 3033069-84-7

Formula: C₂₃H₂₃N₅O₄S

Molecular Weight: 465.53

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	PI3K/AKT-IN-1 is a dual PI3K and AKT inhibitor with anti-cancer activity. It inhibits PI3K γ , PI3K δ , and AKT, suppressing the PI3K/AKT pathway and inducing caspase 3-dependent apoptosis, suitable for cancer research.
Targets(IC50)	Apoptosis,Akt,PI3K
In vitro	PI3K/AKT-IN-1 showed excellent cytotoxic activity in breast cancer MCF-7 and leukemia K562 cell lines with IC50 values of 3.22 μ M and 2.62 μ M, respectively. PI3K/AKT-IN-1 causes the cell cycle to stall in the S phase, leading to apoptosis induced by caspase 3 activation of leukemia (k562) cells. [1]
In vivo	The median lethal dose (LD50) of PI3K/AKT-IN-1 was greater than the test dose of 2000 mg/kg, indicating that PI3K/ AKt-in-1 was non-toxic and well tolerated by experimental animals. [1]

Solubility Information

Solubility	DMSO: 40 mg/mL (85.92 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	2.1481 mL	10.7404 mL	21.4809 mL
5 mM	0.4296 mL	2.1481 mL	4.2962 mL
10 mM	0.2148 mL	1.074 mL	2.1481 mL
50 mM	0.043 mL	0.2148 mL	0.4296 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

El-Dydamony NM, et al. Pyrimidine-5-carbonitrile based potential anticancer agents as apoptosis inducers through PI3K/AKT axis inhibition in leukaemia K562. J Enzyme Inhib Med Chem. 2022 Dec;37(1):895-911.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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