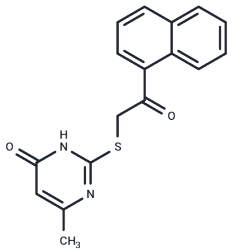
Data Sheet (Cat.No.T8851)

TargetMol

I3MT-3

Chemical Properties



CAS No. : 459420-09-8

Formula: C17H14N2O2S

Molecular Weight: 310.37

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	I3MT-3 (HMPSNE) (HMPSNE) is a potent, selective and cell membrane permeability inhibitor of 3-mercaptopyruvate sulfur transferase (3MST), which targets the persulfated cysteine residues located at the active site of 3MST.
Targets(IC50)	Hippo pathway
In vitro	I3MT-3 shows a dose-dependent inhibition of 3-MST activity from CT26 homogenates, which contain the murine form of the enzyme. The IC50 of HMPSNE for murine 3-MST is calculated as 2.3 μM with a coznccentration-dependent decrease of AzMC fluorescence [1].I3MT-3 (0-300 μM; 48 hours) inhibits CT26 cells proliferate with increasing concentrations of I3MT-3. Confluence of cells treated with HMPSNE is recorded each hour for 48 h by the IncuCyte method[2].

Solubility Information

Solubility	DMSO: 120 mg/mL (386.64 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (10.63 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.222 mL	16.1098 mL	32.2196 mL
5 mM	0.6444 mL	3.222 mL	6.4439 mL
10 mM	0.3222 mL	1.611 mL	3.222 mL
50 mM	0.0644 mL	0.3222 mL	0.6444 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

Hanaoka K, Sasakura K, Suwanai Y, et al. Discovery and Mechanistic Characterization of Selective Inhibitors of H2S-producing Enzyme: 3-Mercaptopyruvate Sulfurtransferase (3MST) Targeting Active-site Cysteine Persulfide. Sci Rep. 2017;7:40227. Published 2017 Jan 12. doi:10.1038/srep40227