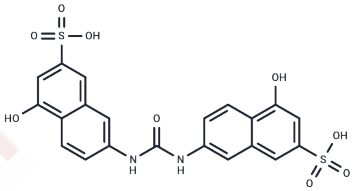
Data Sheet (Cat.No.T22239)

TargetMol

AMI-1 free acid

Chemical Properties



CAS No. : 134-47-4

Formula: C21H16N2O9S2

Molecular Weight: 504.49

Storage: Store at low temperature,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	AMI-1 free acid is a potent, cell-permeable, and reversible inhibitor of protein arginine N-methyltransferases (PRMTs), with inhibitory concentration 50 (IC50) values of 8.8 μM for human PRMT1 and 3.0 μM for yeast-Hmt1p. It achieves its PRMTs inhibitory activity by obstructing peptide-substrate binding [1].
Targets(IC50)	Histone Methyltransferase
In vitro	In S180 cells and U2OS cells, AMI-1, free acid (0.6 mM, 1.2 mM, 2.4 mM; 48 hours, 72 hours, 96 hours) inhibits cell viability[3].
In vivo	AMI-1, free acid (0.5 mg; administered daily via subcutaneous injection for 7 days) reduces tumor weight in male Kunming mice with S180 cell xenografts[3].

Solubility Information

Solubility	DMSO: 60 mg/mL (118.93 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.96 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	1.9822 mL	9.911 mL	19.822 mL
5 mM	0.3964 mL	1.9822 mL	3.9644 mL
10 mM	0.1982 mL	0.9911 mL	1.9822 mL
50 mM	0.0396 mL	0.1982 mL	0.3964 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

Zhang, B., et al. Targeting protein arginine methyltransferase 5 inhibits colorectal cancer growth by decreasing arginine methylation of eIF4E and FGFR3. Oncotarget. 2015 Sep 8;6(26):22799-811.
Baolai Zhang, et al. Arginine Methyltransferase inhibitor-1 Inhibits Sarcoma Viability in vitro and in vivo. Oncol Lett. 2018 Aug;16(2):2161-2166.
Donghang Cheng, et al. Small Molecule Regulators of Protein Arginine Methyltransferases. J Biol Chem. 2004 Jun 4; 279(23):23892-9.