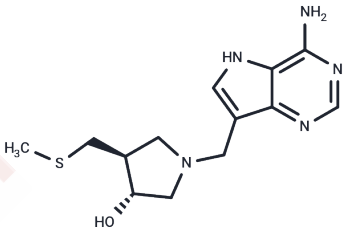
Data Sheet (Cat.No.TQ0008)

TargetMol

MT-DADMe-ImmA

Chemical Properties



CAS No. : 653592-04-2

Formula: C13H19N5OS

Molecular Weight: 293.39

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	MT-DADMe-ImmA (MTDIA) is an inhibitor of human 5'-methylthioadenosine phosphorylase (MTAP, Ki: 90 pM).
Targets(IC50)	Others,Histone Methyltransferase
In vitro	Treatment of cultured cells with MTA and MT-DADMe-ImmA inhibit MTAP, increase cellular MTA concentrations, decrease polyamines, and induce apoptosis in FaDu and Cal27, two head and neck squamous cell carcinoma cell lines. MT-DADMe-ImmA alone does not induce apoptosis in any cell line [2].
In vivo	MTAP activity slowly returns, giving a biological half-life for the action of oral MT-DADMe-ImmA of 6.3 days. The time-dependent growth of FaDu tumors in immunodeficient mice is suppressed by oral or intraperitoneal treatment with MT-DADMe-ImmA [2].
Cell Research	Cell viability is evaluated using the Alamar Blue assay. Cells are seeded onto 96-well plates at a density of 10^4 cells/well and incubated with increasing concentrations of MT-DADMe-ImmA (100 pM to 100 μM) for 4 days at fixed MTA concentrations (0, 5, 10, and 20 μM) [2].
Animal Research	Tumors were established in mice for 5 days prior to oral or intraperitoneal treatments with MT-DADMe-ImmA. Mice are treated with an oral dose of 21 mg/kg or an intraperitoneal dose of 5 mg/kg/day MT-DADMe-ImmA [2].

Solubility Information

Solubility	DMSO: 50 mg/mL (170.42 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 (6.82 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	3.4084 mL	17.0422 mL	34.0843 mL
5 mM	0.6817 mL	3.4084 mL	6.8169 mL
10 mM	0.3408 mL	1.7042 mL	3.4084 mL
50 mM	0.0682 mL	0.3408 mL	0.6817 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

Evans GB, et al. Second generation transition state analogue inhibitors of human 5'-methylthioadenosine phosphorylase. J Med Chem. 2005 Jul 14;48(14):4679-89.
Basu I, et al. A transition state analogue of 5'-methylthioadenosine phosphorylase induces apoptosis in head and neck cancers. J Biol Chem. 2007 Jul 20;282(29):21477-86.