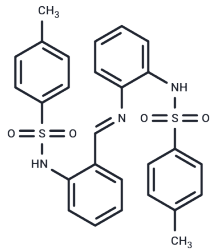
Data Sheet (Cat.No.T16128)

TargetMol

MP-A08

Chemical Properties



CAS No. : 219832-49-2

Formula: C27H25N3O4S2

Molecular Weight: 519.64

Storage: Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	MP-A08 is a highly selective, ATP-competitive inhibitor of sphingosine kinase (SPHK1) that targets both SphK1 and SphK2 [Ki: 6.9 ± 0.8 μM and 27 ± 3 μM, respectively].
Targets(IC50)	S1P Receptor
In vitro	MP-A08 inhibit SphK2, cause a decrease in EC barrier integrity in vitro in both cell type. MP-A08 blocks pro-proliferative signaling pathways causes mitochondrial-associated apoptosis in an SK-dependent manner. It also reduces the growth of human lung adenocarcinoma tumours in a mouse xenograft model by both inducing tumour cell apoptosis and inhibiting tumour angiogenesis [2]
In vivo	MP-A08 inhibits the growth of human lung tumour xenografts in mice.

Solubility Information

Solubility	H2O: insoluble DMSO: 55 mg/mL (105.84 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 (3.85 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	1.9244 mL	9.622 mL	19.2441 mL
5 mM	0.3849 mL	1.9244 mL	3.8488 mL
10 mM	0.1924 mL	0.9622 mL	1.9244 mL
50 mM	0.0385 mL	0.1924 mL	0.3849 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

Pitman MR et al. A selective ATP-competitive sphingosine kinase inhibitor demonstrates anti-cancer properties. Oncotarget, 2015 Mar 30, 6(9):7065-83.
Dimasi DP et al. Examining the Role of Sphingosine Kinase-2 in the Regulation of Endothelial Cell Barrier Integrity. Microcirculation, 2016 Apr, 23(3):248-65.