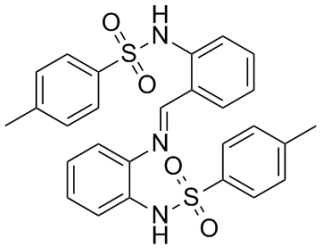
MP-A08

Cat. No.:	HY-19794
CAS No.:	219832-49-2
Molecular Formula:	$C_{27}H_{25}N_3O_4S_2$
Molecular Weight:	519.64
Target:	SPHK
Pathway:	Immunology/Inflammation
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (96.22 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	1.9244 mL	9.6220 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

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.81 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.81 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MP-A08 is a highly selective ATP competitive sphingosine kinase (SPHK1) inhibitor that targets both SphK1 and SphK2 with Ki values of 6.9 ± 0.8 μM and 27 ± 3 μM, respectively.

In Vitro

MP-A08 blocks pro-proliferative signalling pathways, induces mitochondrial-associated apoptosis in a SK-dependent manner, and reduces the growth of human lung adenocarcinoma tumours in a mouse xenograft model by both inducing tumour cell apoptosis and inhibiting tumour angiogenesis. MP-A08 inhibit SphK2, cause a decrease in EC barrier integrity in vitro in both cell type.[2]

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	MP-A08 suppresses the growth of human lung tumor xenografts in mice. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Pitman MR et al. A selective ATP-competitive sphingosine kinase inhibitor demonstrates anti-cancer properties. Oncotarget, 2015 Mar 30, 6(9):7065-83.

[2]. 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.

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