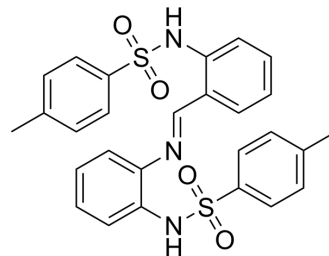


## MP-A08

Cat. No.:	HY-19794
CAS No.:	219832-49-2
Molecular Formula:	C <sub>27</sub> H <sub>25</sub> N <sub>3</sub> O <sub>4</sub> S <sub>2</sub>
Molecular Weight:	519.64
Target:	SphK
Pathway:	Immunology/Inflammation
Storage:	Powder    -20°C    3 years 4°C        2 years



\* The compound is unstable in solutions, freshly prepared is recommended.

### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 50 mg/mL (96.22 mM)  
\* "≥" means soluble, but saturation unknown.

Concentration	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

- 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
- 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.

#### IC<sub>50</sub> & Target

SphK1

#### 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.

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**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.

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**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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**Caution: Product has not been fully validated for medical applications. For research use only.**

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