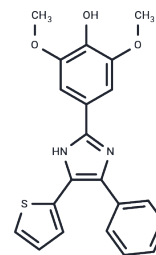


DPTIP

Chemical Properties

CAS No. :	351353-48-5
Formula:	C ₂₁ H ₁₈ N ₂ O ₃ S
Molecular Weight:	378.44
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	DPTIP is an effective inhibitor of neutral sphingomyelinase 2 with an IC ₅₀ value of 30 nM.
Targets(IC ₅₀)	Phospholipase
In vitro	DPTIP (30 μM) decreases exosome release by 50% in astrocytes. DPTIP(0.03-30 μM) dose-dependently blocks EV secretion[1].
In vivo	In mice, DPTIP potently (10mg/kg; i.p.) inhibits IL-1β-induced astrocyte-derived EV release. Brain concentrations of DPTIP are above its IC ₅₀ for neutral sphingomyelinase 2 inhibition for at least 4h after the administration of DPTIP[2].

Solubility Information

Solubility	DMSO: 27 mg/mL (71.35 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6424 mL	13.2121 mL	26.4243 mL
5 mM	0.5285 mL	2.6424 mL	5.2849 mL
10 mM	0.2642 mL	1.3212 mL	2.6424 mL
50 mM	0.0528 mL	0.2642 mL	0.5285 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

Huarui Zhang, et al. Advances in the discovery of exosome inhibitors in cancer. J Enzyme Inhib Med Chem. 2020 Dec;35(1):1322-1330.

Camilo Rojas, et al. DPTIP, a newly identified potent brain penetrant neutral sphingomyelinase 2 inhibitor, regulates astrocyte-peripheral immune communication following brain inflammation. Sci Rep. 2018 Dec 7;8(1):17715.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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