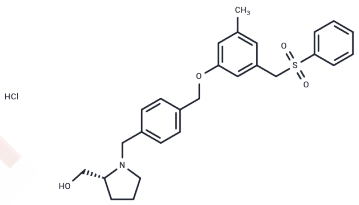
Data Sheet (Cat.No.T8840)

TargetMol

PF-543 hydrochloride

Chemical Properties



CAS No. : 1706522-79-3

Formula: C27H32ClNO4S

Molecular Weight: 502.1

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	PF-543 hydrochloride (PF-543) inhibits SphK1 with a K(i) of 3.6 nM, is sphingosine-competitive and is more than 100-fold selective for SphK1 over the SphK2 isoform.
Targets(IC50)	Apoptosis,Autophagy,LPL Receptor,S1P Receptor
In vitro	SphK1 inhibition by PF-543 causes a dose-dependent depletion of the intracellular level of S1P with EC50 concentration of 8.4 nM and a concomitant elevation of the intracellular level of sphingosine in 1483 cells. The level of endogenous S1P in 1483 cells after a 1 h treatment with 200 nM PF-543 is decreased 10-fold, producing a proportional increase in the level of sphingosine.
In vivo	PF543 was found to be a potent inhibitor (IC50 = 26.7 nM) capable of blocking >90% of C17-S1P formation in the blood.

Solubility Information

Solubility	DMSO: 50 mg/mL (99.58 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9916 mL	9.9582 mL	19.9164 mL
5 mM	0.3983 mL	1.9916 mL	3.9833 mL
10 mM	0.1992 mL	0.9958 mL	1.9916 mL
50 mM	0.0398 mL	0.1992 mL	0.3983 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

Schnute ME, McReynolds MD, Kasten T, et al. Modulation of cellular S1P levels with a novel, potent and specific inhibitor of sphingosine kinase-1. Biochem J. 2012;444(1):79-88. doi:10.1042/BJ20111929
Zhang L, Yi Y, Wang T, et al.25-Hydroxycholesterol inhibits classical swine fever virus entry into porcine alveolar macrophages by depleting plasma membrane cholesterol.Veterinary Microbiology.2023: 109668.