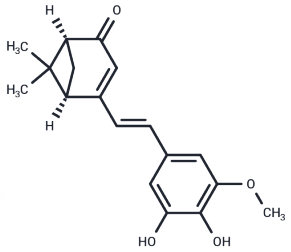
Data Sheet (Cat.No.T12981)

SP-8356

Chemical Properties



CAS No. : 1454885-45-0

Formula: C18H20O4

Molecular Weight: 300.35

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	SP-8356 is a potent, orally active inhibitor of cluster of differentiation 147 (CD147) with anti-atherosclerotic effects.
Targets(IC50)	Autophagy
In vitro	In a time- and dose-dependent manner, SP-8356 (5-10 μM; 48 hours) inhibits the growth of various types of breast cancer cell lines. SP-8356 (10 μM; 48 hours) increases the percentage of MDA-MB231 cells in the S phase and decreases caspase-3 and cleaved PARP [1].
In vivo	In a xenograft mouse model, SP-8356 (10mg/kg; i.p.; every three days until the 42nd day) inhibits tumor growth [1]. SP-8356 (50 mg/kg; p.o.; daily one day after carotid artery ligation for three weeks) prevents the formation of plaque and attenuates its vulnerability [2].

Solubility Information

Solubility	DMSO: 62.5 mg/mL (208.09 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 6.25 mg/mL (20.81 mM),Solution. *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	3.3294 mL	16.6472 mL	33.2945 mL
5 mM	0.6659 mL	3.3294 mL	6.6589 mL
10 mM	0.3329 mL	1.6647 mL	3.3294 mL
50 mM	0.0666 mL	0.3329 mL	0.6659 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

Mander S, et al. SP-8356, a (1S)-(-)-verbenone derivative, exerts in vitro and in vivo anti-breast cancer effects by inhibiting NF-κB signaling. Sci Rep. 2019 Apr 29;9(1):6595.
Pahk K, et al. SP-8356, a Novel Inhibitor of CD147-Cyclophilin A Interactions, Reduces Plaque Progression and Stabilizes Vulnerable Plaques in apoE-Deficient Mice. Int J Mol Sci. 2019 Dec 21;21(1). pii: E95.
Pahk K, et al. A novel CD147 inhibitor, SP-8356, reduces neointimal hyperplasia and arterial stiffness in a rat model of partial carotid artery ligation. J Transl Med. 2019 Aug 20;17(1):274.