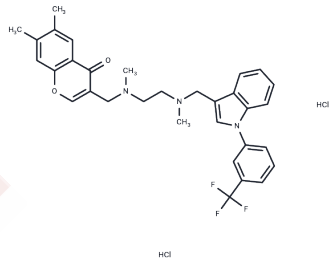
Data Sheet (Cat.No.T12985)

TargetMol

SPD304 dihydrochloride

Chemical Properties



CAS No. : 1049741-03-8

Formula: C32H34Cl2F3N3O2

Molecular Weight: 620.53

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	SPD304 dihydrochloride is a selective inhibitor of TNF-α with an IC50 of 22 μM. SPD304 dihydrochloride promotes dissociation of TNF trimers.
Targets(IC50)	TNF
In vitro	The survivability of aHSCs is significantly rescued by SPD304 dihydrochloride (2 μM). The production of lipid hydroxides and intracellular GSH are increased as well. GA (75 μM) and SPD304 dihydrochloride (2 μM) downregulate TRADD (almost 2-fold) and p–RIP3 (1.4–fold) compared to GA and promote the activation of caspase 8[4].

Solubility Information

Solubility	DMSO: 16.7 mg/mL (26.91 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 1.67 mg/mL (2.69 mM),Suspension. *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	1.6115 mL	8.0576 mL	16.1153 mL
5 mM	0.3223 mL	1.6115 mL	3.2231 mL
10 mM	0.1612 mL	0.8058 mL	1.6115 mL
50 mM	0.0322 mL	0.1612 mL	0.3223 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

Molly M. He, et al. Small-Molecule Inhibition of TNF-α. Science 11 Nov 2005.
Alexiou P, et al. Rationally designed less toxic SPD-304 analogs and preliminary evaluation of their TNF inhibitory effects. Arch Pharm (Weinheim). 2014 Nov;347(11):798-805.
Mouhsine H, et al. Identification of an in vivo orally active dual-binding protein-protein interaction inhibitor targeting TNFα through combined in silico/in vitro/in vivo screening. Sci Rep. 2017 Jun 13;7(1):3424.
Gallic acid induces necroptosis via TNF-α signaling pathway in activated hepatic stellate cells. Chang YJ, et al. PLoS One. 2015 Mar 27;10(3):e0120713.