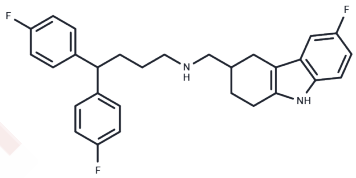
Data Sheet (Cat.No.T12114)

MSC1094308

Chemical Properties



CAS No. : 2219320-08-6

Formula: C29H29F3N2

Molecular Weight: 462.55

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	MSC1094308 is a reversible, non-ATP-competitive alterative inhibitor targeting type II AAA ATPase (VCP/p97) and type I AAA ATPase (VPS4B), which affects the intracellular protein degradation process by binding to a specific hotspot region of p97 and inhibiting D2 ATPase activity.
Targets(IC50)	p97
In vitro	Treatment of HCT116 cells with MSC1094308 (10 μM, 8 hours) can induce intracellular accumulation of polyubiquitin, a biomarker that can be used as a degradation inhibitor in HCT116 cells. [1]

Solubility Information

Solubility	DMSO: 40 mg/mL (86.48 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2 mg/mL (4.32 mM),Sonication is recommended. *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	2.1619 mL	10.8096 mL	21.6193 mL
5 mM	0.4324 mL	2.1619 mL	4.3239 mL
10 mM	0.2162 mL	1.081 mL	2.1619 mL
50 mM	0.0432 mL	0.2162 mL	0.4324 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

Pöhler R, et al. A Non-Competitive Inhibitor of VCP/p97 and VPS4 Reveals Conserved Allosteric Circuits in Type I and II AAA ATPases. Angew Chem Int Ed Engl. 2018 Feb 5;57(6):1576-1580.