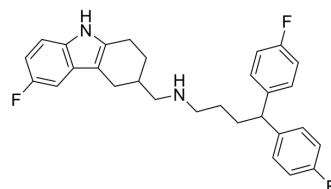


MSC1094308

Cat. No.:	HY-123872		
CAS No.:	2219320-08-6		
Molecular Formula:	C ₂₉ H ₂₉ F ₃ N ₂		
Molecular Weight:	462.55		
Target:	p97		
Pathway:	Cell Cycle/DNA Damage		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (108.10 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	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	1.0810 mL	2.1619 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.40 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.40 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.40 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	MSC1094308 is a non-competitive and reversible VPS4B/p97 (VCP) (I/II type AAA ATPase) allosteric inhibitor, with IC ₅₀ values of 0.71 μM and 7.2 μM for VPS4B and p97, respectively ^[1] . MSC1094308 inhibits the D2 ATPase activity by binding to a agentable hotspot of p97. MSC1094308 can be used in study of cancer ^[1] .
IC₅₀ & Target	IC ₅₀ : 0.71 μM (VPS4B), 7.2 μM (p97) ^[1] .
In Vitro	MSC1094308 (10 μM; 8 h) induces accumulation of polyubiquitin as a biomarker for degradation inhibition in HCT116 cells ^[1] .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis^[1]

Cell Line:	HCT116 cells
Concentration:	10 μ M
Incubation Time:	8 h
Result:	Led to accumulation of polyubiquitinated proteins (a biomarker for degradation inhibition).

REFERENCES

[1]. 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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