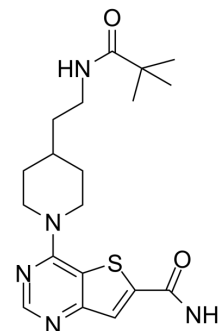


SIRT-IN-1

Cat. No.:	HY-16615
CAS No.:	1431411-60-7
Molecular Formula:	C ₁₉ H ₂₇ N ₅ O ₂ S
Molecular Weight:	389.52
Target:	Sirtuin
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 19.23 mg/mL (49.37 mM); ultrasonic and warming and heat to 60°C						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	2.5673 mL	12.8363 mL	25.6726 mL
				5 mM	0.5135 mL	2.5673 mL	5.1345 mL
				10 mM	0.2567 mL	1.2836 mL	2.5673 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.92 mg/mL (4.93 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.92 mg/mL (4.93 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.92 mg/mL (4.93 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	SIRT-IN-1 is a potent inhibitor of SIRT1/2/3, with IC ₅₀ s of 15, 10, 33 μM, respectively.		
IC ₅₀ & Target	SIRT1 15 nM (IC ₅₀)	SIRT2 10 nM (IC ₅₀)	SIRT3 33 nM (IC ₅₀)
In Vitro	SIRT-IN-1 (compound 28) is one of the most potent truncated pan SIRT1/ 2/3 inhibitor, the IC ₅₀ values are 0.015, 0.010, 0.033 μM, respectively. SIRT-IN-1 (SIRT1/2/3 pan inhibitor) binds identically in the catalytic active site (RMS=0.29 Å), occupying the nicotinamide C-pocket and acetyl lysine substrate channel ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

[1]. Disch JS, et al. Discovery of thieno[3,2-d]pyrimidine-6-carboxamides as potent inhibitors of SIRT1, SIRT2, and SIRT3. J Med Chem. 2013 May 9;56(9):3666-79.

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

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