SIRT-IN-2

Cat. No.: HY-16616

CAS No.: 1431411-66-3

Molecular Formula: $C_{15}H_{21}N_5O_3S_2$

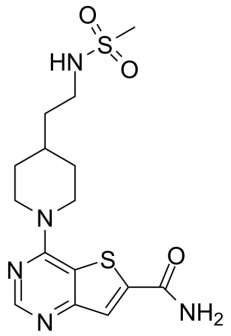
Molecular Weight: 383.49

Target: Sirtuin

Pathway: Cell Cycle/DNA Damage; Epigenetics

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (162.98 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6076 mL	13.0381 mL	26.0763 mL
	5 mM	0.5215 mL	2.6076 mL	5.2153 mL
	10 mM	0.2608 mL	1.3038 mL	2.6076 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.42 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SIRT-IN-2 is a potent inhibitor of SIRT1/2/3, with IC_{50}s of 4, 4, 7 μM, respectively.

IC_{50} & Target

SIRT1	SIRT2	SIRT3
4 μM (IC_{50})	1 μM (IC_{50})	7 μM (IC_{50})

In Vitro

SIRT-IN-2 (compound 31) is one of the most potent truncated pan SIRT1/ 2/3 inhibitor, the IC_{50} values are 4, 4, 7 μM, respectively. SIRT-IN-2 (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.

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