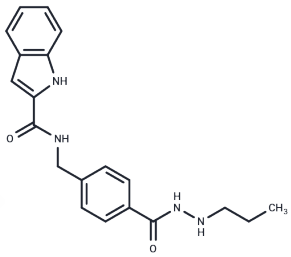
Data Sheet (Cat.No.T61209)

TargetMol

HDAC-IN-27

Chemical Properties



CAS No. : 2763368-89-2

Formula: C20H22N4O2

Molecular Weight: 350.41

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	HDAC-IN-27 is a highly potent and orally bioavailable class I HDAC-selective inhibitor with IC_{50} values ranging from 0.43 to 3.01 nM against HDAC1-3. It shows significant anti-tumor activity in vitro and in vivo, exerts prominent anti-proliferative effects on acute myeloid leukemia (AML) cell lines, and achieves its biological effects by inducing apoptosis and promoting acetylation of histones H3 and H4 (AcHH3, AcHH4), making it applicable in acute myeloid leukemia research.
Targets(IC50)	Apoptosis,HDAC
In vitro	Methods: MV4-11 cells and HL60 cells with wild-type p53 were treated with HDAC-IN-27 for 11 hours, and caspase-3 cleavage, cell apoptosis, sub-G1 phase ratio and cell cycle distribution were detected. Results: 1 In MV4-11 cells with wild-type p53, HDAC-IN-27 could induce pro-caspase-3 cleavage, significant apoptotic cell death and accumulation of cells in the sub-G1 phase. 2 In HL60 cells, HDAC-IN-27 mainly induced G2/M phase arrest, and no obvious apoptotic phenomenon was observed [1].

Solubility Information

Solubility	DMSO: 13.34 mg/mL (38.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8538 mL	14.269 mL	28.538 mL
5 mM	0.5708 mL	2.8538 mL	5.7076 mL
10 mM	0.2854 mL	1.4269 mL	2.8538 mL
50 mM	0.0571 mL	0.2854 mL	0.5708 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

Jiang Y, et al. Potent Hydrazide-Based HDAC Inhibitors with a Superior Pharmacokinetic Profile for Efficient Treatment of Acute Myeloid Leukemia In Vivo. J Med Chem. 2022;65(1):285-302.