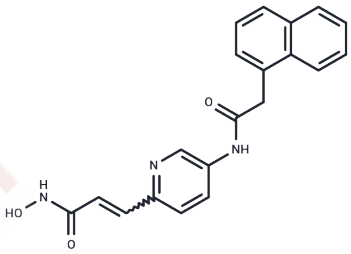
Data Sheet (Cat.No.T73515)

TargetMol

MC2590

Chemical Properties



CAS No. : 2284460-01-9

Formula: C20H17N3O3

Molecular Weight: 347.37

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	MC2590 is a potent and selective histone deacetylase (HDAC) inhibitor that inhibits HDAC1-3, -6, -8, and -10 activities, induces cell cycle arrest, and promotes apoptosis.
Targets(IC50)	Apoptosis,HDAC
In vitro	MC2625/MC2590 (Compound 5e), over 72 hours, inhibits colorectal cancer cells HCT116 (IC50=0.07 μM), lung adenocarcinoma cells A549 (IC50=0.32 μM), and chronic myeloid leukemia cells K562 (IC50=0.05 μM) [1].At concentrations of 1 and 5 μM over 24 and 48 hours, MC2625/MC2590 induces G2/M cell cycle arrest [1]. At concentrations of 1 and 5 μM over 24 and 48 hours, MC2625/MC2590 induces excessive acetylation activity of H3K9/14, increases acetylated-α-tubulin levels, and significantly upregulates p21 protein [1].At concentrations of 1 and 5 μM over 48 hours, MC2625/MC2590 increases mRNA expression of p21, BAX, and BAK, downregulates cell cycle proteins D1 and BCL-2, and modulates pro-apoptotic and anti-apoptotic microRNAs to induce apoptosis [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8788 mL	14.3939 mL	28.7877 mL
5 mM	0.5758 mL	2.8788 mL	5.7575 mL
10 mM	0.2879 mL	1.4394 mL	2.8788 mL
50 mM	0.0576 mL	0.2879 mL	0.5758 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

Elisabetta Di Bello, et al. Novel pyridine-containing histone deacetylase inhibitors strongly arrest proliferation, induce apoptosis and modulate miRNAs in cancer cells. Eur J Med Chem. 2022 Dec 15;247:115022.

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