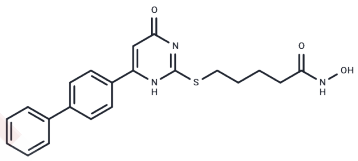
Data Sheet (Cat.No.T35762)

TargetMol

MC1742

Chemical Properties



CAS No. :	1776116-74-5
Formula:	C21H21N3O3S
Molecular Weight:	395.48
Storage:	Store at low temperature,Keep away from direct sunlight 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	MC1742 is a broad-spectrum HDAC inhibitor, inhibiting HDAC1, HDAC2, HDAC3, HDAC6, HDAC8, HDAC10, and HDAC11. MC1742 inhibits the growth of parasites in vitro, blocking the growth of Toxoplasma gondii tachyzoites and severely disrupting the expression of parasitic genes. MC1742 has potential anticancer activity, inhibiting the growth arrest, apoptosis, and growth of cancer cells. MC1742 has potential anticancer activity, inhibiting growth arrest, apoptosis and differentiation of cancer cells.
Targets(IC50)	Apoptosis,HDAC
In vitro	MC1742 is a potent HDAC inhibitor with IC50 values of 0.1 μM, 0.11 μM, 0.02 μM, 0.007 μM, 0.61 μM, 0.04 μM, and 0.1 μM for HDAC1, HDAC2, HDAC3, HDAC6, HDAC8, HDAC10, and HDAC11, respectively.MC1742 was able to increase the levels of acetylated-H3 and acetylated microtubule proteins and inhibit the proliferation of cancer stem cells. MC1742 (0.5 and 2 μM; 24 h) was able to enhance acetylation levels in a dose-dependent manner, as evidenced by patchy nuclear staining of acetylated histone H3. MC1742 (0.5, 1 and 2 μM; 24, 48 and 72 h) significantly induced apoptosis in all cancer stem cell cultures. MC1742 (0.025-0.5 μM; 14 days) was able to significantly promote bone vesicle formation with a dose-dependent effect. [1]

Solubility Information

Solubility	DMSO: 160 mg/mL (404.57 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5286 mL	12.6429 mL	25.2857 mL
5 mM	0.5057 mL	2.5286 mL	5.0571 mL
10 mM	0.2529 mL	1.2643 mL	2.5286 mL
50 mM	0.0506 mL	0.2529 mL	0.5057 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

Di Pompo, G., et al. Novel histone deacetylase inhibitors induce growth arrest, apoptosis, and differentiation in sarcoma cancer stem cells. J. Med. Chem. 58(9), 4073-4079 (2015).
Heffern, E.F.W., et al. Identification of isoform-selective hydroxamic acid derivatives that potently reactivate HIV from latency. J. Virus Erad. 5(2), 84-91 (2019).