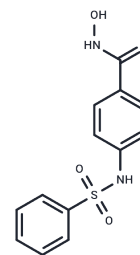


HDAC6-IN-75

Chemical Properties

CAS No. :	400078-78-6
Formula:	C ₁₃ H ₁₂ N ₂ O ₄ S
Molecular Weight:	292.31
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	HDAC6-IN-75 is a selective HDAC6 inhibitor with an IC ₅₀ of 0.17 nM against HDAC6. It induces the accumulation of acetylated α -tubulin in glioma cells, alters the cell cycle, increases the proportion of SubG1 phase cells, and promotes apoptosis of glioma cells and glioma stem cells, making it applicable in glioma research.
Targets(IC50)	Apoptosis,HDAC
In vitro	<p>Methods: Glioma cell lines were treated with 0.0032–50 μM HDAC6-IN-75 for 24–72 hours, and cell cytotoxicity, proliferation inhibition, acetylated protein levels, cell cycle, apoptosis, and effects on glioblastoma stem cells were detected.</p> <p>Results:</p> <ol style="list-style-type: none"> HDAC6-IN-75 exhibited time-dependent cytotoxicity in glioma cells, with a GI₅₀ of 0.8–5.3 μM after 72 hours of treatment, and could achieve complete growth inhibition of HOG, T98G, and U251MG cells at 72 hours. HDAC6-IN-75 (16.2–50 μM, 24 h) could up-regulate the levels of acetylated α-tubulin in four glioma cell lines, and up-regulate the levels of acetylated histone H3 in HOG, T98G, and U251MG cells, which was consistent with its inhibition of HDAC6 and class I HDAC activities. HDAC6-IN-75 (16.2–50 μM, 24 h) could induce SubG1 phase accumulation (DNA fragmentation) in T98G and U251MG cells, and shift U87MG, U251MG, and HOG cells from G0/G1 phase to G2/M phase, regulating the cell cycle process. HDAC6-IN-75 (16.2–50 μM, 24 h) could reduce the viability of HOG and U251MG cells, and induce late apoptosis and necrosis. HDAC6-IN-75 had cytotoxicity against glioblastoma stem cells, with an IC₅₀ of 3.725 μM for GSC23 cells and 12.90 μM for GG16 cells after 72 hours of treatment [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.421 mL	17.1051 mL	34.2103 mL
5 mM	0.6842 mL	3.421 mL	6.8421 mL
10 mM	0.3421 mL	1.7105 mL	3.421 mL
50 mM	0.0684 mL	0.3421 mL	0.6842 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

Furtado LC, et al. Repositioning HDAC Inhibitors for Glioma Treatment: Synthesis and Biological Evaluation. ACS Omega. 2026;11(6):10104-10120. Published 2026 Feb 3.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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