

TH34

Chemical Properties

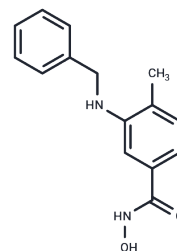
CAS No. : 2196203-96-8

Formula: C₁₅H₁₆N₂O₂

Molecular Weight: 256.3

Appearance: Solid

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	TH34 is an HDAC6/8/10 inhibitor (IC ₅₀ s: 4.6/1.9/7.7 μM). It shows high selectivity over HDAC1/2/3.
Targets(IC ₅₀)	HDAC
In vitro	TH34 is well-tolerated by non-transformed human skin fibroblasts at concentrations up to 25 μM and modestly impairs colony growth in medulloblastoma cell lines, but specifically induces caspase-dependent programmed cell death in a concentration-dependent manner in several human neuroblastoma cell lines.
Cell Research	HeLa cells, stably transfected with NanoBRET plasmids NanoLuc [®] -HDAC6 FL Fusion Vector and NanoLuc [®] -HDAC10 FL Fusion Vector were seeded at 20,000 cells/well in white 96-well plates. Without further incubation, tracer (0.3 μM) and drugs were added in separate steps and plates were placed in a tissue culture incubator for 2 h. For NanoBRET quantification, plates were put at room temperature for 10 min. Nanoglow substrate, diluted in OptiMEM without phenol red, was added and measured within 10 min in an OPTIMA plate reader (460 nm emission for donor and 610LP filter for acceptor). The BRET signal was calculated by the ratio of acceptor signal to donor signal.

Solubility Information

Solubility	H ₂ O: Insoluble, DMSO: 80 mg/mL (312.13 mM), Sonication is recommended. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (12.88 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9017 mL	19.5084 mL	39.0168 mL
5 mM	0.7803 mL	3.9017 mL	7.8034 mL
10 mM	0.3902 mL	1.9508 mL	3.9017 mL
50 mM	0.078 mL	0.3902 mL	0.7803 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.

Reference

Kolbinger FR, et al. The HDAC6/8/10 inhibitor TH34 induces DNA damage-mediated cell death in human high-grade neuroblastoma cell lines. Arch Toxicol. 2018 Aug;92(8):2649-2664.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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