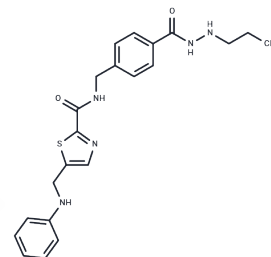


HDAC3-IN-4

Chemical Properties

CAS No. :	2988762-46-3
Formula:	C ₂₂ H ₂₅ N ₅ O ₂ S
Molecular Weight:	423.53
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	HDAC3-IN-4 is a selective and orally active inhibitor of HDAC3, boasting an IC ₅₀ of 89 nM. It induces the degradation of PD-L1 by modulating cathepsin B (CTSB) in lysosomes, with a DC ₅₀ of 5.7 μM. Compared to HDAC1, HDAC6, HDAC7, and HDAC8, HDAC3-IN-4 demonstrates superior selectivity for HDAC3.
In vitro	HDAC3-IN-4 (compound HQ-30) exhibits potent antiproliferative effects, with IC ₅₀ values of 0.09 μM for Jurkat (T lymphoma), 0.43 μM for HCT-116 (colorectal cancer), 1.20 μM for B16-F10 (melanoma), 2.94 μM for MCF-7 (breast cancer), and 0.24 μM for HepG2 (liver cancer). At concentrations ranging from 0.5 to 8 μM over 48 hours, HDAC3-IN-4 induces apoptosis in B16-F10 cells in a concentration-dependent manner. Furthermore, at doses from 0.5 to 4 μM for 48 hours, it increases the percentage of B16-F10 cells in the G ₂ /M phase of the cell cycle, while decreasing the percentage in the G ₀ /G ₁ phase. Additionally, at 0.5 to 4 μM for 24 hours, HDAC3-IN-4 significantly upregulates acetylated H3 (Ac-H3). The compound also modulates PD-L1 expression through the lysosomal pathway.
In vivo	HDAC3-IN-4 (compound HQ-30; 25 mg/kg; oral administration; daily; for 9 days) effectively decreases tumor volume and weight, consequently inhibiting tumor growth.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3611 mL	11.8055 mL	23.6111 mL
5 mM	0.4722 mL	2.3611 mL	4.7222 mL
10 mM	0.2361 mL	1.1806 mL	2.3611 mL
50 mM	0.0472 mL	0.2361 mL	0.4722 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481