

TNI-97

Chemical Properties

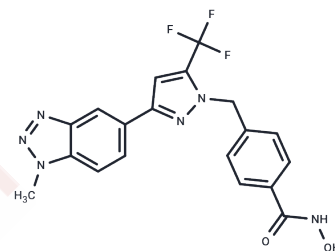
CAS No. : 2790425-52-2

Formula: C₁₉H₁₅F₃N₆O₂

Molecular Weight: 416.36

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	TNI-97 is a selective, orally active HDAC6 inhibitor with an IC ₅₀ value of 0.2 nM. It significantly suppresses the growth and colony-forming abilities of the triple-negative breast cancer (TNBC) cell line MDA-MB-453. In these cells, TNI-97 induces widespread cell death, including apoptosis, necroptosis, and pyroptosis. Additionally, TNI-97 demonstrates antitumor activity in mouse models bearing MDA-MB-453 xenograft tumors or syngeneic mouse-derived TNBC cell allograft tumors. TNI-97 is useful for researching triple-negative breast cancer.
Targets(IC50)	Apoptosis,HDAC,Pyroptosis,Necroptosis
In vitro	TNI-97 demonstrates antitumor activity in MDA-MB-453 cells and MDA-MB-468 cells, with GI 50 values of 0.2 μM and 5.4 μM, respectively. At a lower concentration of 1 μM for 24 hours, TNI-97 significantly induces α-tubulin acetylation in MDA-MB-453 cells more effectively than Ricolinostat (ACY-1215), while not inducing histone H3 acetylation. Additionally, TNI-97 inhibits colony formation in MDA-MB-453 cells in a dose-dependent manner at concentrations of 1-2 μM over 14 days. At 2.5-5 μM for 48 hours, TNI-97 induces apoptosis, necroptosis, and pyroptosis in MDA-MB-453 cells.
In vivo	TNI-97, administered orally at doses of 20-40 mg/kg for 5 days on and 2 days off over a period of 5 weeks, demonstrates a dose-dependent inhibition of tumor growth in NSIG mice with MDA-MB-453 xenograft tumors. Additionally, TNI-97 at 40 mg/kg, given for 2 weeks under the same dosing schedule, significantly reduces both tumor weight and volume when used in combination with Paclitaxel in BALB/c mice bearing TNBC cell allograft tumors.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4018 mL	12.0088 mL	24.0177 mL
5 mM	0.4804 mL	2.4018 mL	4.8035 mL
10 mM	0.2402 mL	1.2009 mL	2.4018 mL
50 mM	0.048 mL	0.2402 mL	0.4804 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

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