

4-iodo-SAHA

Chemical Properties

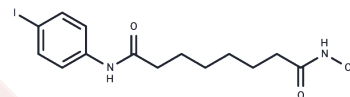
CAS No. : 1219807-87-0

Formula: C₁₄H₁₉IN₂O₃

Molecular Weight: 390.22

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	4-Iodo-SAHA (1k), an orally active inhibitor of both class I and class II histone deacetylase (HDAC), exhibits EC ₅₀ values of 1.1, 0.95, 0.12, 0.24, 0.85, and 1.3 μM for Skbr3, HT29, U937, JA16, and HL60 cell lines, respectively. This compound holds potential for cancer research purposes [1].
Targets(IC50)	Others,HDAC
In vitro	4-Iodo-SAHA (1k) demonstrates inhibitory effects on several cell lines including Skbr3, HT29, U937, JA16, and HL60 at concentrations ranging from 0.1-100 μM over 48 hours, according to study findings. Particularly in SKBR3 cells, exposure to 2 μM of 4-Iodo-SAHA for periods between 6-24 hours results in increased levels of acetylated H4 and p21. A Cell Proliferation Assay reveals that the compound successfully inhibits the growth of SKBR3, HT29, U937, JA16, and HL60 cell lines with EC ₅₀ values of 1.1, 0.95, 0.12, 0.24, 0.85, and 1.3 μM, respectively, indicating its 10-fold increased potency against the U937 cell line when compared to SAHA. Western Blot Analysis further corroborates these findings by showing a time-dependent increase in histone H4 acetylation and p21/WAF1 cell cycle inhibitor in SKBR3 cells, outlining 4-Iodo-SAHA's efficacy as both an inhibitor of cell proliferation and a modulator of cellular mechanisms related to acetylation and cell cycle regulation.
In vivo	4-Iodo-SAHA (1k) administered orally at a dosage of 50 mg/kg five times a week for two weeks exhibited comparable toxicity levels to those observed in SAHA-treated and control mice, as demonstrated by similar body weights and hematological counts in 8-week-old fvb mice [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5627 mL	12.8133 mL	25.6266 mL
5 mM	0.5125 mL	2.5627 mL	5.1253 mL
10 mM	0.2563 mL	1.2813 mL	2.5627 mL
50 mM	0.0513 mL	0.2563 mL	0.5125 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

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