Product Data Sheet

Product Name: 4-iodo-SAHA
Cat. No.: GC17005

Chemical Properties

Cas. No.	1219807-87-0		
Chemical Name	N1-hydroxy-N8-(4-iodophenyl) octanediamide		
SMILES	IC1=CC=C(NC(CCCCCCC(NO)=O)=O)C=C1		
Formula	$C_{14}H_{19}IN_2O_3$	M.Wt	390.2
Solubility	≥ 1.67mg/mL in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	4-iodo-SAHA		

Background

4-iodo-SAHA is a hydrophobic derivative of SAHA, the class I and class II histone deacetylase (HDAC) inhibitor [1].

The reversible acetylation of lysine residues in histone plays an important role in transcriptional activation and repression. The regulation of these post-translational modifications is balanced by histone acetyltransferase (HAT) and histone deacetylase (HDAC) activities. HDACs are also involved in reversible acetylation of non-histone proteins [1].

4-iodo-SAHA is a histone deacetylase (HDAC) inhibitor. In SKBR3-breast-derived cell line, 4-iodo-SAHA inhibited cell proliferation with EC50 value of 1.1 μM. In HT29 colon-derived cell line, leukemia-derived U937 tumor cell line, JA16, HL60 and K562 cell lines, 4-iodo-SAHA inhibited cell proliferation with EC50 values of 0.95, 0.12, 0.24, 0.85 and 1.3 μM, respectively. 4-iodo-SAHA is 10-fold more potent as an inhibitor of U937 leukemia cell proliferation compared to SAHA (0.12 μM versus 1.2 μM). In SKBR3 cells, 4-iodo-SAHA

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reduced acetylated H4 and p21 levels [1].

Reference:

[1]. Salmi-Smail C, Fabre A, Dequiedt F, et al. Modified cap group suberoylanilide hydroxamic acid histone deacetylase inhibitor derivatives reveal improved selective antileukemic activity. J Med Chem. 2010 Apr 22;53(8):3038-47.

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