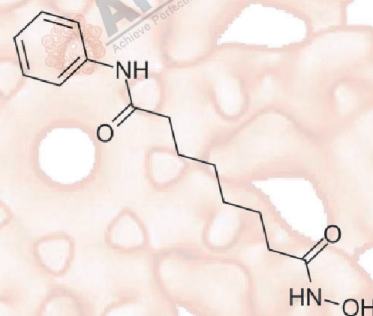


Product Data Sheet

Vorinostat (SAHA, MK0683)

Cat. No.:	A4084
CAS No.:	149647-78-9
Formula:	C ₁₄ H ₂₀ N ₂ O ₃
M.Wt:	264.3
Synonyms:	SAHA, suberoylanilide hydroxamic acid, Suberanilohydroxamic acid, SAHA cpd
Target:	HDAC
Pathway:	DNA Damage/DNA Repair
Storage:	Store at -20° C



Solvent & Solubility

insoluble in EtOH; insoluble in H₂O; ≥4.41 mg/mL in DMSO

In Vitro

Preparing

Stock Solutions

Solvent	Concentration	Mass		
		1mg	5mg	10mg
	1 mM	3.7836 mL	18.9179 mL	37.8358 mL
	5 mM	0.7567 mL	3.7836 mL	7.5672 mL
	10 mM	0.3784 mL	1.8918 mL	3.7836 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

HDAC inhibitor

IC₅₀ & Target

~10 nM (HDAC)

In Vitro

Cell Viability Assay

Cell Line:

Human cutaneous T-cell lymphomas (CTCL) cell lines

Preparation method:

The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

	Reacting conditions:	IC50: 0.146 μ M HH 2.062 μ M HuT78 2.697 μ M MJ 1.375 μ M MyIA 1.510 μ M SeAx 72h
	Applications:	Vorinostat dose-dependently reduced cell proliferation with IC50 values of 0.146 μ M, 2.062 μ M, 2.697 μ M, 1.375 μ M and 1.510 μ M in HH, HuT78, MJ, MyIA and SeAx cells, respectively.
In Vivo	Animal experiment	
	Animal models:	C57BL/6 mice bearing E μ -myc lymphomas
	Dosage form:	C57BL/6 mice bearing E μ -myc lymphomas were injected with vorinostat (200 mg/kg i.p.) and lymphoma cells were harvested after the indicated time points. The percentage of tumor cells in the lymph node of C57BL/6 mice bearing E μ -myc lymphomas treated with vorinostat was determined by FACS analysis.
	Applications:	Vorinostat induced a marked accumulation of E μ -myc lymphomas displaying DNA fragmentation in vivo.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Emily L Morton, Christian V Forst, et al. "Transcriptional Circuit Fragility Influences HIV Proviral Fate." bioRxiv. 2018 December 23.
2. Feng XL, Deng HB, et al. "Suberoylanilide Hydroxamic Acid Triggers Autophagy by Influencing the mTOR Pathway in the Spinal Dorsal Horn in a Rat Neuropathic Pain Model." Neurochem Res. 2018 Dec 17. PMID:30560396
3. Deng R, Zhang P, et al. "HDAC is indispensable for IFN- γ -induced B7-H1 expression in gastric cancer." Clin Epigenetics. 2018 Dec 11;10(1):153. PMID:30537988
4. Kim SR, Lewis JM, et al. "BET inhibition in advanced cutaneous T cell lymphoma is synergistically potentiated by BCL2 inhibition or HDAC inhibition." Oncotarget. 2018 Jun 26;9(49):29193-29207. PMID:30018745
5. Hari Prasad, Rajini Rao. "The Amyloid Clearance Defect in ApoE4 Astrocytes is Corrected by Epigenetic Restoration of NHE6." bioRxiv. 2018. January. 4PMID:29498802

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References

- [1] Wozniak M B, Villuendas R, Bischoff J R, et al. Vorinostat interferes with the signaling transduction pathway of T cell receptor and synergizes with PI3K inhibitors in cutaneous T-cell lymphoma. haematologica, 2010: haematol. 2009.013870.
- [2] Lindemann R K, Newbold A, Whitecross K F, et al. Analysis of the apoptotic and therapeutic activities of histone deacetylase inhibitors by using a mouse model of B cell lymphoma. Proceedings of the National Academy of Sciences, 2007, 104(19): 8071-8076.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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