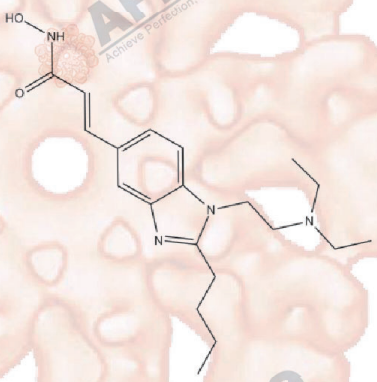
Product Data Sheet

Pracinostat (SB939)



Cat. No.:	A4095
CAS No.:	929016-96-6
Formula:	C20H30N4O2
M.Wt:	358.48
Synonyms:	SB-939, SB 939
Target:	DNA Damage/DNA Repair
Pathway:	HDAC
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾11.4 mg/mL in DMSO; ⩾24.8 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.7896 mL	13.9478 mL	27.8956 mL
5 mM	0.5579 mL	2.7896 mL	5.5791 mL
10 mM	0.2790 mL	1.3948 mL	2.7896 mL

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

Biological Activity

Shortsummary	Pan-HDAC inhibitor
IC_{50} & Target	49 nM (HDAC1), 43 nM (HDAC3), 56 nM (HDAC4), 47 nM (HDAC5), 70 nM (HDAC9), 40 nM (HDAC10)

In Vitro

Cell Viability Assay

Cell Line:	Ovarian (A2780) , colon (HCT-116), and prostate (PC-3) 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:	96 h; IC50=0.48±0.21 μM (A2780), 0.48±0.27 μM (HCT-116), 0.34±0.06 μM

		(PC-3)
	Applications:	SB939 showed broad anti-proliferative activity against representative tumor cells from ovarian (A2780) , colon (HCT-116), and prostate (PC-3) with cellular IC50 values of 0.48±0.21, 0.48±0.27 and 0.34±0.06 μM, respectively.
In Vivo	**Animal experiment**	
	Animal models:	Athymic nude mice
	Dosage form:	200 mg/kg, 100 mg/kg, 50 mg/kg; oral taken.
	Applications:	SB939 was clearly toxic at the highest dose tested (200 mg/kg); however, at the MTD dose of 100 mg/kg and at 50mg/kg, it demonstrated very significant antitumor effects on day 21 with TGI = 90% ($p < 0.001$) and 66% ($p < 0.001$), respectively, with acceptable body weight loss.
	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.Manna PR, Ahmed AU, et al. "Overexpression of the steroidogenic acute regulatory protein in breast cancer: Regulation by histone deacetylase inhibition." Biochem Biophys Res Commun. 2019 Feb 5;509(2):476-482.PMID:30595381

2.Bagnall NH, Hines BM, et al."Insecticidal activities of histone deacetylase inhibitors against a dipteranparasite of sheep, Lucilia cuprina." Int J Parasitol Drugs Drug Resist. 2017Apr;7(1):51-60.PMID:28110187

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References

[1] Wang H, Yu N, Chen D, et al. Discovery of (2 E)-3-{2-butyl-1-[2-(diethylamino) ethyl]-1 H-benzimidazol-5-yl}-N-hydroxyacrylamide (SB939), an orally active histone deacetylase inhibitor with a superior preclinical profile[J]. Journal of medicinal chemistry, 2011, 54(13): 4694-4720.

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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