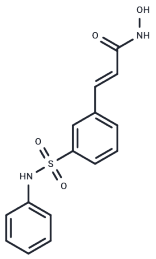
Data Sheet (Cat.No.T8517)

TargetMol

Belinostat

Chemical Properties



CAS No. : 866323-14-0

Formula: C15H14N2O4S

Molecular Weight: 318.35

Storage: Keep away from moisture
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	Belinostat (PXD101) is an inhibitor of hydroxamic acid-type histone deacetylase (HDAC, IC50 of 27 nM in HeLa cell extracts),and with antineoplastic activity.
Targets(IC50)	HDAC,Autophagy
In vitro	Belinostat is a novel hydroxamate-type inhibitor of histone deacetylase activity that inhibits histone deacetylase activity in HeLa cell extracts with an IC(50) of 27 nM and induces a concentration-dependent (0.2-5 micro M) increase in acetylation of histone H4 in tumor cell lines.Belinostat is cytotoxic in vitro in a number of tumor cell lines with IC (50)s in the range 0.2-3.4 micro M as determined by a clonogenic assay and induces apoptosis.
In vivo	Treatment of nude mice bearing human ovarian and colon tumor xenografts with PXD101 (10-40 mg/kg/day i.p.) for 7 days results in a significant, dose-dependent growth delay without obvious signs of toxicity. Growth delay is also observed in xenografts of cisplatin-resistant ovarian tumor cells. A significant increase in acetylation of H4 is detected in blood and tumor tissues 3 hours after treatment. These findings suggest that PXD101 has potential as a novel antitumor agent.

Solubility Information

Solubility	DMSO: 245 mg/mL (769.59 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (15.71 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1412 mL	15.706 mL	31.412 mL
5 mM	0.6282 mL	3.1412 mL	6.2824 mL
10 mM	0.3141 mL	1.5706 mL	3.1412 mL
50 mM	0.0628 mL	0.3141 mL	0.6282 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.

Reference

Plumb J A , Finn P W , Williams R J , et al. Pharmacodynamic Response and Inhibition of Growth of Human Tumor Xenografts by the Novel Histone Deacetylase Inhibitor PXD101[J]. Molecular Cancer Therapeutics, 2003, 2(8):721-728.

Chia S, et al. Phenotype-driven precision oncology as a guide for clinical decisions one patient at a time. Nat Commun. 2017 Sep 5;8(1):435.