

Belinostat

Catalog No: tcsc0453



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg



Specifications

CAS No:

866323-14-0

Formula:

$C_{15}H_{14}N_2O_4S$

Pathway:

Autophagy;Epigenetics;Cell Cycle/DNA Damage

Target:

Autophagy;HDAC;HDAC

Purity / Grade:

>98%

Solubility:

DMSO : \geq 150 mg/mL (471.18 mM)

Alternative Names:

PXD101;PX105684

Observed Molecular Weight:

318.35

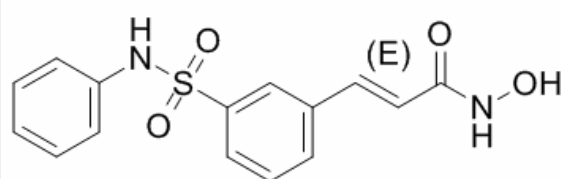
Product Description

Belinostat is a potent **HDAC** inhibitor with an **IC₅₀** of 27 nM in HeLa cell extracts.

IC50 & Target: IC50: 27 nM (HDAC, in HeLa cells)^[1], 82 nM (HDAC6)^[2]

In Vitro: Belinostat (PXD101) induces a concentration-dependent (0.2-5 μ M) increase in acetylation of histone H4 in tumor cell lines. Belinostat is cytotoxic in vitro in a number of tumor cell lines with IC₅₀s in the range 0.2-3.4 μ M as determined by a clonogenic assay and induces apoptosis. Belinostat inhibits the growth of a number of human tumor cell lines in vitro with IC₅₀s determined by a clonogenic assay in the range 0.2-3.4 μ M^[1]. Belinostat (PXD101) is a potent histone deacetylase (HDAC) inhibitor, potently inhibits the enzymatic activity of purified recombinant HDAC6 (IC₅₀ of 82 nM)^[2].

In Vivo: Treatment of nude mice bearing human ovarian and colon tumor xenografts with Belinostat (10-40 mg/kg/day i.p.) daily for 7 days causes a significant dose-dependent growth delay with no obvious signs of toxicity to the mice. Growth delay is also observed for xenografts of cisplatin-resistant ovarian tumor cells. A marked increase in acetylation of H4 is detected in blood and tumor of mice 3 h after treatment with Belinostat (PXD101). The inhibition of growth of human tumor xenografts in mice, with no apparent toxicity^[1]. Belinostat (PXD101) displays single-agent antitumor activity on human A2780 ovarian cancer s.c. xenografts which is enhanced via combination therapy with Carboplatin^[2].



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