Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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 : ≥ 150 mg/mL (471.18 mM)

Alternative Names:
PXD101;PX105684

Observed Molecular Weight:
318.35

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Product Description

Belinostat is a potent **HDAC** inhibitor with an **IC_{50}** 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 μM) 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 μM as determined by a clonogenic assay and induces apoptosis. Belinostat inhibits the growth of a number of human tumor cell lines in vitro with IC_{50}s determined by a clonogenic assay in the range 0.2-3.4 μM[1]. Belinostat (PXD101) is a potent histone deacetylase (HDAC) inhibitor, potently inhibits the enzymatic activity of purified recombinant HDAC6 (IC_{50} 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].