

# 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

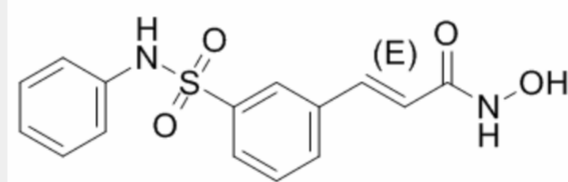
## Product Description

Belinostat is a potent **HDAC** inhibitor with an **IC<sub>50</sub>** of 27 nM in HeLa cell extracts.

IC50 & Target: IC50: 27 nM (HDAC, in HeLa cells)<sup>[1]</sup>, 82 nM (HDAC6)<sup>[2]</sup>

**In Vitro:** Belinostat (PXD101) induces a concentration-dependent (0.2-5  $\mu$ 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<sub>50</sub>s in the range 0.2-3.4  $\mu$ 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 IC<sub>50</sub>s determined by a clonogenic assay in the range 0.2-3.4  $\mu$ M<sup>[1]</sup>. Belinostat (PXD101) is a potent histone deacetylase (HDAC) inhibitor, potently inhibits the enzymatic activity of purified recombinant HDAC6 (IC<sub>50</sub> of 82 nM)<sup>[2]</sup>.

**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<sup>[1]</sup>. Belinostat (PXD101) displays single-agent antitumor activity on human A2780 ovarian cancer s.c. xenografts which is enhanced via combination therapy with Carboplatin<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!