Web: www.taiclone.com
Tel: +886-2-2735-9682
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Dacinostat

Catalog No: tcsc1974

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
404951-53-7

Formula:
$C_{22}H_{25}N_3O_3$

Pathway:
Autophagy;Epigenetics;Cell Cycle/DNA Damage

Target:
Autophagy;HDAC;HDAC

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 43 mg/mL (113.32 mM)

Alternative Names:
NVP-LAQ824;LAQ824

Observed Molecular Weight:
379.45

Product Description

Dacinostat is a potent **HDAC** inhibitor, with an **IC_{50}** of 32 nM; Dacinostat also inhibits **HDAC1** with an **IC_{50}** of 9 nM, and used in cancer research.

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IC50 & Target: IC50: 32 nM (HDAC)[1], 9 nM (HDAC1)[2]

In Vitro: Dacinostat (NVP-LAQ824) activates p21 promoter, with AC_{50} of 0.30 μM. NVP-LAQ824 inhibits tumor cell (H1299, HCT116) growth, with IC_{50}s of 150 and 10 nM, respectively. NVP-LAQ824 also shows inhibitory activities against two prostate cancer cell lines (DU145 and PC3) and a breast cancer line (MDA435), with IC_{50}s of 18, 23, 39 nM, respectively. Continuous exposure of NVP-LAQ824 for 72 h produces LD90s of 0.09 M in HCT116 cells and 0.47 M in A549 cells. NVP-LAQ824 treatment of NDHF cells causes the expected G1-S growth arrest in addition to a significant reduction of cells in S-phase and accumulation of cells at the G2-M checkpoint. NVP-LAQ824 induces apoptotic death in human tumor cells. NPV-LAQ824 increases acetylation of histones H3 and H4[1]. Dacinostat inhibits HDAC1 with an IC_{50} of 9 nM[2]. Dacinostat (10 and 20 nM) suppresses proliferation of AML fusion protein-expressing 32D cells. Dacinostat impairs short-term engraftment potential of leukemic stem cells. Dacinostat exhausts in vitro self-renewal potential of murine AML1/ETO- and PLZF/RARα-positive HSC[3].

In Vivo: NVP-LAQ824 produces a dose-dependent inhibition of tumor growth, and at 100 mg/kg, its antitumor effect is similar to that of 5-Fluorouracil[1].