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

Trichostatin A

Catalog No: tcsc0499

Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Specifications

CAS No:
58880-19-6

Formula:
$C_{17}H_{22}N_2O_3$

Pathway:
Epigenetics;Cell Cycle/DNA Damage

Target:
HDAC;HDAC

Form:
White to khaki (Solid)

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 30 mg/mL (99.22 mM)

Storage Instruction:

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Powder -20°C 3 years 4°C 2 years; In solvent -80°C 6 months -20°C 1 month

Alternative Names:
TSA

Observed Molecular Weight:
302.37

Product Description

Trichostatin A is a potent and specific inhibitor of **HDAC class I/II**, with an **IC_{50}** value of 1.8 nM for HDAC.

IC50 & Target: IC50: 1.8 nM (HDAC)[1]

In Vitro: Trichostatin A is a potent and specific inhibitor of HDAC class I/II, with an IC_{50} value of 1.8 nM for HDAC. Trichostatin A (TSA) inhibits proliferation of eight breast carcinoma cell lines with mean±SD IC_{50} of 124.4±120.4 nM (range, 26.4-308.1 nM). HDAC inhibitory activity of Trichostatin A is similar in all cell lines with mean IC_{50} of 2.4±0.5 nM (range, 1.5-2.9 nM)[1]. Trichostatin A (330 nM) increases Gαs protein expression in human myometrial cells, but does not increase Gαs mRNA levels[2]. Trichostatin A (20-75 nM) induces minimal cytotoxicity to adipose-derived stem cells (ADSCs), and enhances the osteogenic differentiation capacity of ADSCs[3]. In addition, Trichostatin A (0, 10, 100, 500 nM) dose-dependently decreases HDAC class I/II activity[4].

In Vivo: Trichostatin A (500 μg/kg, s.c.) pronounces antitumor activity without causing any measurable toxicity in doses of up to 5 mg/kg by s.c. injection, in randomized controlled efficacy studies using the N-methyl-N-nitrosourea carcinogen-induced rat mammary carcinoma model[1].