

# Trichostatin A

**Catalog No: tcsc0499**



## Available Sizes

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**Size:** 2mg

**Size:** 5mg

**Size:** 10mg

**Size:** 25mg

**Size:** 50mg



## Specifications

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**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 :  $\geq 30$  mg/mL (99.22 mM)

**Storage Instruction:**

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

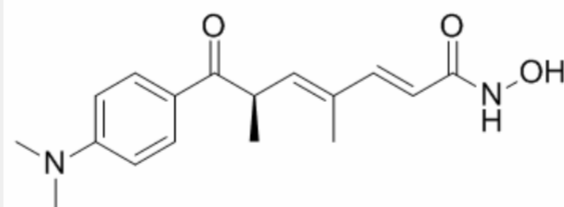
**Product Description**

Trichostatin A is a potent and specific inhibitor of **HDAC class I/II**, with an **IC<sub>50</sub>** value of 1.8 nM for HDAC.

IC50 & Target: IC50: 1.8 nM (HDAC)<sup>[1]</sup>

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

**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<sup>[1]</sup>.



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