

#9950  
Store at -20C**Trichostatin A (TSA)**

1 mg


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**For Research Use Only. Not for Use in Diagnostic Procedures.****Background**

Trichostatin A is an antifungal antibiotic derived from *Streptomyces* that inhibits mammalian histone deacetylases (1,2). When used at nanomolar concentrations, trichostatin A causes the accumulation of acetylated histones in a quite specific and reversible manner (2,3). Trichostatin A has also been shown to inhibit both G1- and G2-phases of the mammalian cell cycle and has been tested for use as a potential anticancer agent (2-5).

**Molecular Formula**C<sub>17</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub>**Molecular Weight**

302.4 g/mol

**Purity**

&gt;99%

**CAS**

58880-19-6

**Solubility**

Soluble in DMSO at 15mg/ml and EtOH at 3mg/ml.

**Storage**

Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

**Directions for Use**

Trichostatin A is supplied as a lyophilized powder. For a 4mM stock (10.000X), reconstitute in 826 µL DMSO. Treat cells with 400 nM trichostatin A for 12-18 hours.

**Precautions:** This compound is only sold for use in extremely dilute solutions for biological research. No other use is intended and any other use involves substantial hazards. This compound should never be handled in powder or aerosol form or in any other form susceptible to uncontrolled release in the laboratory, even in very small quantities.

**Background References**

1. Tsuji, N. et al. (1976) *J. Antibiot.* 29, 1-6.
2. Yoshida, M. et al. (1990) *J. Biol. Chem.* 265, 17174-17179.
3. Kijima, M. et al. (1993) *J. Biol. Chem.* 268, 22429-22435.
4. Ailenberg, M. and Silverman, M. (2002) *Biochem. Biophys. Res. Commun.* 298, 110-115.
5. Maecker, H. et al. (2002) *Cancer Cell* 2, 139-148.

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