

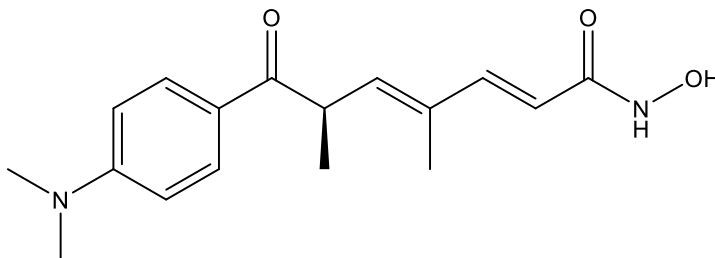
**Catalog # 10-2110**

**Trichostatin A**

CAS# 58880-19-6

(2E,4E,6R)-7-(4-(dimethylamino)phenyl)-N-hydroxy-4,6-dimethyl-7-oxo-2,4-heptadienamido  
TSA

Lot # X102138



Potent and selective histone deacetylase (HDAC) inhibitor ( $K_i = 3.4$  nM). Induces reversion of ras transformed cells to normal morphology. Induces dedifferentiation of primordial germ cells into embryonic germ cells. Cell permeable and active *in vivo*. Decreased global chromatin condensation increasing gene-editing efficiency 2-4X.<sup>4</sup> Part of the CRISPY mix for increasing precise gene editing.<sup>5</sup>

- 1) Yoshida *et al.* (1990), *Potent and specific inhibition of mammalian histone deacetylase both in vivo and in vitro by trichostatin A*; J. Biol. Chem., **265** 17174
- 2) Futamura *et al.* (1995), *Trichostatin A inhibits both ras-induced neurite outgrowth of PC12 cells and morphological transformation of NIH3T3 cells*; Oncogene, **10** 1119
- 3) Durcova-Hills *et al.* (2008), *Reprogramming Primordial Germ Cells into Pluripotent Stem Cells*; PLoS-One, **3** e3531
- 4) Molugu *et al.* (2023), *Trichostatin A for Efficient CRISPR-Cas9 Gene Editing of Human Pluripotent Stem Cells*; CRISPR J., **6** 473
- 5) Riesenber and Maricic (2018), *Targeting repair pathways with small molecules increases precise genome editing in pluripotent stem cells*; Nat. Commun., **9** 2165

**PHYSICAL DATA**

Molecular Weight:	302.38
Molecular Formula:	C <sub>17</sub> H <sub>22</sub> N <sub>2</sub> O <sub>3</sub>
Purity:	99% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 15 mg/ml) or ethanol (up to 3 mg/ml)
Physical Description:	Tan solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.