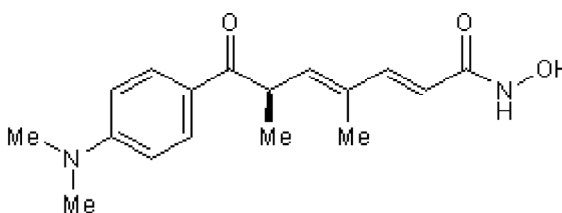


**Product Name:** Trichostatin A **Catalog No.:** 1406 **Batch No.:** 10  
**CAS Number:** 58880-19-6  
**IUPAC Name:** (2*E*,4*E*,6*R*)-7-(4-(Dimethylamino)phenyl)-*N*-hydroxy-4,6-dimethyl-7-oxo-2,4-heptadienamido

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>17</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub>  
**Batch Molecular Weight:** 302.37  
**Physical Appearance:** Off White solid  
**Solubility:** DMSO to 5 mg/ml  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 96.1% purity  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	67.53	7.33	9.26
Found	67.18	7.37	8.9

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

<b>Product Name:</b> Trichostatin A	<b>Catalog No.:</b> 1406	<b>10</b>
CAS Number: 58880-19-6		
IUPAC Name: (2E,4E,6R)-7-(4-(Dimethylamino)phenyl)-N-hydroxy-4,6-dimethyl-7-oxo-2,4-heptadienamamide		

**Description:**

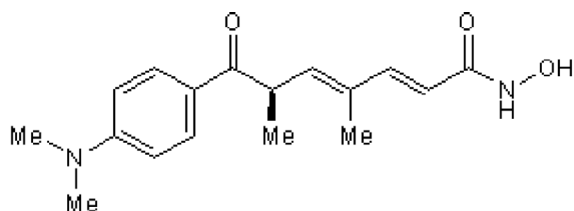
Trichostatin A is a selective and potent inhibitor of class I and II histone deacetylases (HDAC) ( $K_i = 3.4$  nM,  $IC_{50}$  values are 4.99 nM, 5.21 nM, 16.4 nM, 24.3 nM, 27.6 nM for HDAC1, 3, 6, 10 and 4, respectively). Trichostatin A induces accelerated dedifferentiation of primordial germ cells (PGCs) into embryonic germ (EG) cells. Trichostatin A potently inhibits a range of breast cancer and melanoma cell lines ( $IC_{50} = 29-400$  nM) and induces apoptosis in prostate cancer cells. In an animal model of Huntington's disease, inhibition of HDAC by Trichostatin A rescues memory deficits and increases expression of CREB/CBP target genes in mutant m... Please see product specific page on [www.tocris.com](http://www.tocris.com) for full description.

**Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{17}H_{22}N_2O_3$   
 Batch Molecular Weight: 302.37  
 Physical Appearance: Off White solid

**Minimum Purity:**  $\geq 95\%$

**Batch Molecular Structure:**



**References:**

- Molugu et al (2023)** Trichostatin A for efficient CRISPR-Cas9 gene editing of human pluripotent stem cells. *CRISPR J.* **6** 473. PMID: 37676985.
- Galluzzi et al (2017)** Pharmacological modulation of autophagy: therapeutic potential and persisting obstacles. *Nat.Rev.Drug.Discov.* PMID: 28529316.
- Giralt et al (2012)** Long-term memory deficits in Huntington's disease are associated with reduced CBP histone acetylase activity. *Hum.Mol.Genet.* **21** 1203. PMID: 22116937.

**Storage:** Store at -20°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 5 mg/ml

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

<b>bio-techne.com</b> info@bio-techne.com techsupport@bio-techne.com	<b>North America</b> Tel: (800) 343 7475	<b>China</b> info.cn@bio-techne.com Tel: +86 (21) 52380373	<b>Europe Middle East Africa</b> Tel: +44 (0)1235 529449	<b>Rest of World</b> www.tocris.com/distributors Tel:+1 612 379 2956
----------------------------------------------------------------------------	---------------------------------------------	------------------------------------------------------------------	-------------------------------------------------------------	----------------------------------------------------------------------------