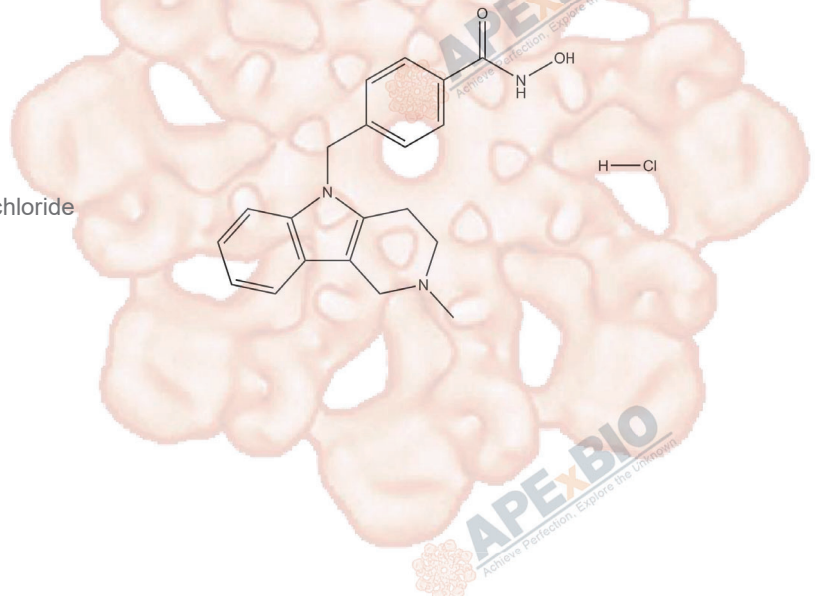


# Product Data Sheet

## Tubastatin A HCl

<b>Cat. No.:</b>	A8547
<b>CAS No.:</b>	1310693-92-5
<b>Formula:</b>	C <sub>20</sub> H <sub>21</sub> N <sub>3</sub> O <sub>2</sub> ·HCl
<b>M.Wt:</b>	371.86
<b>Synonyms:</b>	TSA HCl; Tubastatin A hydrochloride
<b>Target:</b>	DNA Damage/DNA Repair
<b>Pathway:</b>	HDAC
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

≥ 18.6mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent Concentration	Mass		
		1mg	5mg	10mg
	1 mM	2.6892 mL	13.4459 mL	26.8918 mL
	5 mM	0.5378 mL	2.6892 mL	5.3784 mL
	10 mM	0.2689 mL	1.3446 mL	2.6892 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

**Shortsummary** HDAC6 inhibitor, potent and selective

**IC<sub>50</sub> & Target** 15 nM (HDAC6), 854 nM (HDAC8)

In Vitro

#### Cell Viability Assay

**Cell Line:** HaCaT cells

**Preparation method:** The solubility of this compound in DMSO is > 18.6 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.

**Reacting conditions:** 10 μM; 10 hrs

**Applications:** In HaCaT cells, Tubastatin A HCl selectively inhibited HDAC6, preventing

		sodium arsenite-induced association of Nrf2 mRNA with ribosomes and elevation of Nrf2 protein.
In Vivo	<b>Animal experiment</b>	
	Animal models:	B6/Rag1 <sup>-/-</sup> mice adoptively transferred with 1 × 10 <sup>6</sup> WT CD4 <sup>+</sup> CD45RBhi cells
	Dosage form:	25 mg/kg; i.p.; q.d., for 14 days
	Applications:	Adoptively transferred B6/Rag1 <sup>-/-</sup> mice which were treated with Tubastatin A HCl recovered body weights and normal stool formation. In addition, the histologic examination showed reduced mononuclear cell infiltration, preservation of goblet cells, as well as intact mucosal surfaces.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Kyle V. Butler, Jay Kalin, Camille Brochier, et al. Rational Design and Simple Chemistry Yield a Superior, Neuroprotective HDAC6 Inhibitor, Tubastatin A [J]. J. Am. Chem. Soc., 2010, 132 (31), pp 10842–10846.
- [2]. Kappeler KV, Zhang J, Dinh TN, et al. Histone deacetylase 6 associates with ribosomes and regulates de novo protein translation during arsenite stress [J]. Toxicol Sci. 2012 May;127(1):246-255.
- [3]. de Zoeten EF, Wang L, Butler K, Beier UH, Akimova T, Sai H, Bradner JE, Mazitschek R, Kozikowski AP, Matthias P, Hancock WW. Histone deacetylase 6 and heat shock protein 90 control the functions of Foxp3(+) T-regulatory cells. Mol Cell Biol. 2011 May;31(10):2066-78.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

# APExBIO Technology

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