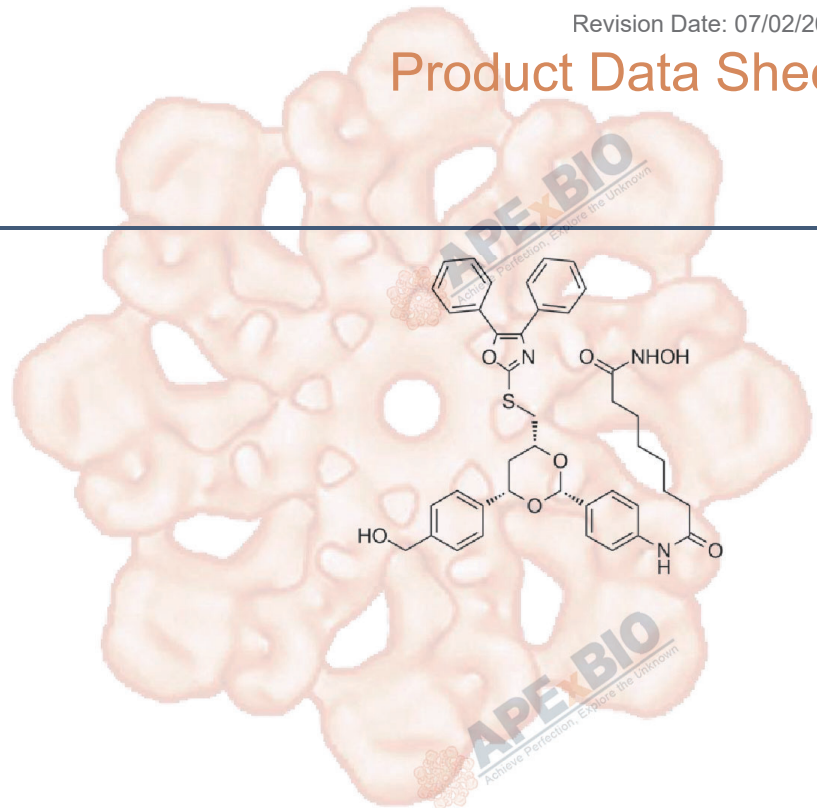


# Product Data Sheet

## Tubacin

<b>Cat. No.:</b>	A4501
<b>CAS No.:</b>	537049-40-4
<b>Formula:</b>	C41H43N3O7S
<b>M.Wt:</b>	721.86
<b>Synonyms:</b>	
<b>Target:</b>	DNA Damage/DNA Repair
<b>Pathway:</b>	HDAC
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

insoluble in EtOH; insoluble in H<sub>2</sub>O;  $\geq 7.19$  mg/mL in DMSO

In Vitro	Preparing Stock Solutions	Mass			
		Solvent	1mg	5mg	10mg
			Concentration		
		<b>1 mM</b>	1.3853 mL	6.9266 mL	13.8531 mL
		<b>5 mM</b>	0.2771 mL	1.3853 mL	2.7706 mL
		<b>10 mM</b>	0.1385 mL	0.6927 mL	1.3853 mL

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

## Biological Activity

Shortsummary	HDAC6 inhibitor,potent,selective,reversible,cell-permeable	
IC <sub>50</sub> & Target	4 nM (HDAC6)	
In Vitro	<b>Cell Viability Assay</b>	
	Cell Line:	Human A549 lung carcinoma cells, Mouse NIH 3T3 wild-type (Neo), HDAC6, HDAC6 double-mutant, and HDAC6-overexpressing cells, Acute lymphoblastic leukemia (ALL) cells
	Preparation method:	Limited soluble in DMSO. 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:	2 $\mu$ M, 4.5 h
	Applications:	In cultured cells, tubacin (10 $\mu$ M) induced up to a 3-fold increase in the relative $\alpha$ -tubulin-acetylation level, with a half-maximum effective concentration (EC50) of 2.5 $\mu$ M. Tubacin (2 $\mu$ M) inhibited the migration of both wild-type and HDAC6-overexpressing cells. Tubacin treatment increased the colocalization of HDAC6 along acetylated microtubules in interphase cells. Treatment with tubacin led to the induction of apoptotic pathways in both pre-B and T cell ALL cells.
In Vivo	<b>Animal experiment</b>	
	Applications:	
	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

1. Hari Prasad, Rajini Rao. "The Amyloid Clearance Defect in ApoE4 Astrocytes is Corrected by Epigenetic Restoration of NHE6." bioRxiv. 2018. January. 4
2. Sedgwick A, Olivia Balmert M, et al. "The formation of giant plasmamembrane vesicles enable new insights into the regulation of cholesterol efflux." Exp Cell Res. 2018 Apr 15;365(2):194-207. PMID:29522754
3. Yan Y, Wang H, et al. "HDAC6 Suppresses Age-Dependent Ectopic Fat Accumulation by Maintaining the Proteostasis of PLIN2 in Drosophila." Dev Cell. 2017 Oct 9;43(1):99-111.e5. PMID:28966044

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

## References

- [1]. Haggarty S J, Koeller K M, Wong J C, et al. Domain-selective small-molecule inhibitor of histone deacetylase 6 (HDAC6)-mediated tubulin deacetylation[J]. Proceedings of the National Academy of Sciences, 2003, 100(8): 4389-4394.
- [2]. Aldana-Masangkay G I, Rodriguez-Gonzalez A, Lin T, et al. Tubacin suppresses proliferation and induces apoptosis of acute lymphoblastic leukemia cells[J]. Leukemia & lymphoma, 2011, 52(8): 1544-1555.

## 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

[www.apexbt.com](http://www.apexbt.com)

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: [info@apexbt.com](mailto:info@apexbt.com)

