

Product Name: Tubastatin A hydrochloride

Catalog No.: 6270

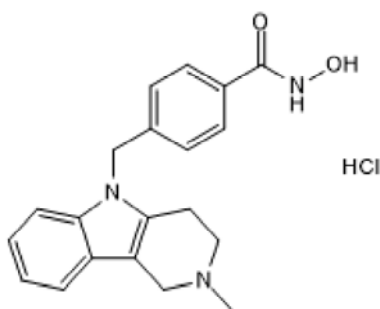
Batch No.: 1

CAS Number: 1310693-92-5

IUPAC Name: *N*-Hydroxy-4-[(1,2,3,4-tetrahydro-2-methyl-5*H*-pyrido[4,3-*b*]indol-5-yl)methyl]benzamide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₁N₃O₂.HCl
Batch Molecular Weight: 371.86
Physical Appearance: White solid
Solubility: DMSO to 10 mM with gentle warming
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.6	5.96	11.3
Found	64.2	6.06	11.3

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

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Description:

Potent HDAC6 inhibitor (IC_{50} = 0.015 μ M). Exhibits some selectivity for HDAC6 over HDAC8 and 1 (IC_{50} values are 0.854 and 16.4 μ M, respectively). Induces elevated levels of α -tubulin and protects against glutathione-induced oxidative stress in primary neuronal cell culture. Reverses the axonal loss in peripheral neurons in mouse model of Charcot-Marie-Tooth disease.

Physical and Chemical Properties:

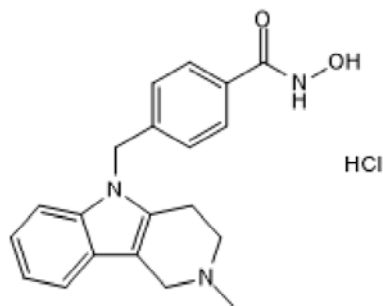
Batch Molecular Formula: $C_{20}H_{21}N_3O_2 \cdot HCl$

Batch Molecular Weight: 371.86

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 10 mM with gentle warming

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. Our standard recommendations are:

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.

References:

d'Ydewalle et al (2011) HDAC6 inhibitors reverse axonal loss in a mouse model of mutant HSPB1-induced Charcot-Marie-Tooth disease. *Nature medicine* **7** 26. PMID: 21785432.

Butler et al (2010) Rational design and simple chemistry yield a superior, neuroprotective HDAC6 inhibitor, tubastatin A. *J.Am.Chem.Soc.* **132** 10842.

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