

## Tubastatin A · HCL

Epigenetic Enzyme Inhibitor

Catalog # H83-904K

Lot # P3320-40

CAS # 1239262-52-2

### Product Description

Molecular Formula: C<sub>20</sub>H<sub>21</sub>N<sub>3</sub>O<sub>2</sub>·HCl  
Appearance: white powder  
Molecular Weight: 371.9  
Purity: 99% (HPLC); NMR (Conforms)  
Solubilization: May be dissolved in DMSO (50 mg/ml)

### Alias

N-hydroxy-4-((2-methyl-1,2,3,4-tetrahydropyrido[4,3-b]indol-5-yl)methyl)benzamide hydrochloride

### Specific Activity

HDAC Inhibitor

### Storage and Stability

Store as supplied at -20°C for up to 2 years. Store solutions at -20°C for up to 3 months.

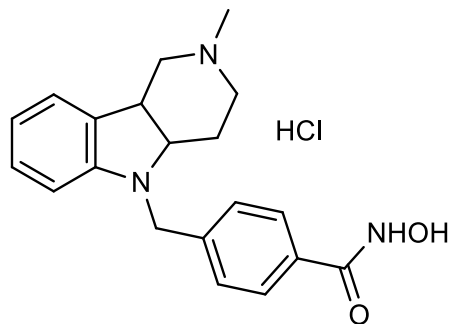
### Scientific Background

Potent and selective histone deacetylase 6 (HDAC6) inhibitor, IC<sub>50</sub>=15 nM (>1000-fold selective against other HDACs and 60-fold for HDAC8)<sup>1</sup>. Inhibits TNFα (IC<sub>50</sub>=272 nM) and IL-6 (IC<sub>50</sub>=712 nM) in LPS-stimulated human macrophages and displays anti-inflammatory activity in animal models<sup>2</sup>. Improves survival in animal models of sepsis<sup>3</sup>. Improves cognition in Alzheimers disease transgenic mice<sup>4</sup>. Cell permeable.

### References

1. KV Butler et al. J. Am. Chem. Soc. 2010 132:10842
2. S Vishwakarma et al. Int. Immunopharmacol. 2013 16:72
3. T Zhao et al. J. Surg. Res. 2014 190:647
4. L Zhang et al. J. Alzheimers Dis. 2014 41:1193

### Molecular Structure



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# SAFETY DATA SHEET

## Article 1 – Identification of the Substance and of the Company/Undertaking

**Product Name:** Tubastatin A · HCl

**Catalog #** H83-904K

*This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.*

Manufacturer's Name: SignalChem Pharmaceuticals Inc.  
Street Address: 110-13120 Vanier Place  
City, Prov. Postal Code: Richmond, BC, V6V 2J2  
Fax: 604-232-4601  
EMERGENCY PHONE: 604-232-4600

## Article 2 - Hazardous Identification

### 2.1 Classification of Substance (GHS)

Skin Category 2

Eye Category 2A

Specific target organ toxicity - single exposure (Category 3)

### 2.2 Label Elements

Classification according to Regulation (EC) No 1272/2008



GHS07

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

### 2.3 Other hazards

Data not available

## Article 3 – Composition/Information on Ingredients

### 3.1 Substance

**Product Name(s):** Tubastatin A · HCl, N-hydroxy-4-((2-methyl-1,2,3,4-tetrahydropyrido[4,3-b]indol-5-yl)methyl)benzamide hydrochloride

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## Article 4 – First Aid

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### 4.1 Description of First Aid Measures

**General:** Move out of dangerous area and contact a doctor. Provide them with this data sheet.

**If Inhaled:** Move to fresh air, and monitor breathing. Give artificial respiration if breathing stops. Consult a doctor.

**In Case of Skin Contact:** Remove contaminated clothing. Wash with soap and water for an extended period of time. Consult a doctor.

**In Case of Eye Contact:** Immediately flush eye(s) with copious amounts of water for at least 15 minutes. Consult a doctor.

**If Swallowed:** Rinse out the mouth with water. Do not give anything by mouth. Consult a doctor.

### 4.2 Important Symptoms and Effects

Lung, skin and eye irritant. Prolonged exposure is not known to aggravate prior medical conditions

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## Article 5 – Fire Fighting Measures

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### 5.1 Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special Hazards

May emit toxic fumes.

### 5.3 Precautions for Fire Fighters

Wear suitable protection to prevent contact and respirator for fumes.

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## Article 6 – Accidental Release Measures

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### 6.1 Personal Precautions

Relocate personnel to a safe area and ensure ventilation is in working order. Wear protective equipment. Avoid dust formation and inhalation of fumes.

### 6.2 Environmental Precautions

Do not let product enter drains

### 6.3 Methods for Containment and Clean-up

Sweep up material without generating dust clouds and place in a sealed container for disposal. Clean surface where spill occurred.

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## Article 7 – Handling and Storage

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### 7.1 Handling Precautions

Use in a well ventilated area. Avoid formation of dust or aerosols. Keep away from sources of ignition. Wear suitable protective clothing. Avoid inhalation, and skin or eye contact.

### 7.2 Safe Storage Measures

Keep product in a sealed contained located in dry well ventilated area.

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## Article 8 – Exposure Controls/Personal Protection

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### 8.1 Control Parameters

Contains no substances with occupational exposure limit values.

### 8.2 Specific Engineering Controls

Keep airborne levels low by using a fumehood or local exhaust.

### 8.3 Personal Protection

**Eye/Face Protection:** Use safety glasses.

**Skin Protection:** Use chemical resistant gloves. Remove and dispose of gloves properly after use. Wash hands thoroughly after use.

**Body Protection:** Wear a lab coat.

**Respiratory Protection:** If risk is present wear a dust respirator.

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## Article 9 – Physical and Chemical Properties

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**Appearance:** white powder

**Odour:** data not available

**Odour Threshold:** data not available

**pH:** data not available

**Boiling Pt:** data not available

**Flash Pt:** data not available

**Explosive Properties:** data not available

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## Article 10 – Stability and Reactivity

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### 10.1 Stability

Stable under recommended transport or storage conditions

### 10.2 Conditions to Avoid

Moist and hot conditions

### 10.3 Hazardous Decomposition Products

Carbon oxides (CO, CO<sub>2</sub>). Possible toxic fumes upon combustion.

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## Article 11– Toxicological Information

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### 11.1 Toxicological Effects

**Acute Toxicity:** data not available

**Skin Corrosion/Irritation:** data not available

**Eye Damage/Irritation:** data not available

**Respiratory or Skin Sensitization:** data not available

**Germ Cell Mutagenicity:** data not available

**Carcinogenicity:** None according to NIOSH

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## Article 12 – Ecological Information

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### 12.1 Toxicity

Data not available

### 12.2 Degradability

Data not available

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## Article 13 – Disposal Considerations

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### 13.1 Waste Treatment

Product and Contaminated Packaging: Dispose according to national legislation. Contact a licensed chemical disposal company.

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## Article 14 – Transport Information

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### 14.1 DOT

Not dangerous

### 14.2 IMDG

Not dangerous

### 14.2 IATA

Not dangerous

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## Article 15 – Regulatory Information

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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

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## Article 16 – Other Information

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