

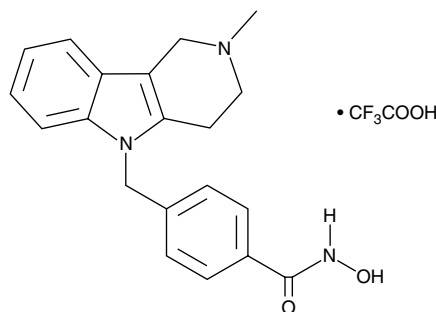
Product Information



Tubastatin A (trifluoroacetate salt)

Item No. 10559

CAS Registry No.: 1239262-52-2
Formal Name: N-hydroxy-4-[(1,2,3,4-tetrahydro-2-methyl-5H-pyrido[4,3-b]indol-5-yl)methyl]-benzamide, 2,2,2-trifluoroacetate
MF: C₂₀H₂₁N₃O₂ • CF₃COOH
FW: 449.4
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 227, 276 nm



Laboratory Procedures

For long term storage, we suggest that tubastatin A (trifluoroacetate salt) be stored as supplied at -20°C. It should be stable for at least two years.

Tubastatin A (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the tubastatin A (trifluoroacetate salt) in the solvent of choice. Tubastatin A (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of tubastatin A (trifluoroacetate salt) in ethanol is approximately 0.2 mg/ml and approximately 5 mg/ml in DMSO and DMF.

Tubastatin A (trifluoroacetate salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tubastatin A (trifluoroacetate salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Tubastatin A (trifluoroacetate salt) has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Tubastatin A is a potent histone deacetylase 6 (HDAC6) inhibitor with an IC₅₀ value of 15 nM. Comparatively, it demonstrates over 1,000-fold selectivity against all other HDAC isoforms (IC₅₀s >16 μM), excluding HDAC8 (IC₅₀ = 0.9 μM). Tubastatin A induces α-tubulin hyperacetylation at 2.5 μM in primary cortical neuron cultures. In a model of oxidative stress induced by glutathione depletion, tubastatin A displays dose-dependent neuronal protection of primary cortical neuron cultures at 5-10 μM.¹

Reference

1. Butler, K.V., Kalin, J., Brochier, C., *et al.* Rational design and simple chemistry yield a superior, neuroprotective HDAC6 inhibitor, Tubastatin A. [In Press] *J. Am. Chem. Soc.* (2010).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10559

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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