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Certificate of Analysis

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Product Name: Tubacin Catalog No.: 3402 Batch No.: 3

CAS Number: 1350555-93-9

 $IUPAC \ Name: \ N-[4-[(2R,4R,6S)-4-[[(4,5-Diphenyl-2-oxazolyl)thio]methyl]-6-[4-(hydroxymethyl)phenyl]-1, 3-dioxan-2-yl]phenyl]-N'-linear (A-1)-1, A-2 (A-1)-1, A-3 (A-1)-1, A-4 (A-1)-1,$

hydroxyoctanediamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄₁H₄₃N₃O₇S

Batch Molecular Weight: 721.86 **Physical Appearance:** White solid

Solubility: DMSO to 10 mM Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.0% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

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



Product Information

Print Date: Feb 28th 2024

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hydroxyoctanediamide

Description:

Tubacin is a selective inhibitor of HDAC6; inhibits the second deacetylase domain (DD2). Does not inhibit HDAC6 histone deacetylase activity; reversibly inhibits α -tubulin deacetylation. Increases α -tubulin acetylation levels with no effect on histone acetylation or cell cycle progression.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{41}H_{43}N_3O_7S$

Batch Molecular Weight: 721.86 Physical Appearance: White solid

Minimum Purity: ≥96%

Batch Molecular Structure:

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 10 mM

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Jiang *et al* (2008) Direct binding with histone deacetylase 6 mediates the reversible recruitment of parkin to the centrosome. J.Neurosci. **28** 12993. PMID: 19036992.

Haggarty *et al* (2003) Domain-selective small-molecule inhibitor of histone deacetylase 6 (HDAC6)-mediated tubulin deacetylation. Proc.Natl.Acad.Sci.USA *100* 4389. PMID: 12677000.

Haggarty et al (2003) Multidimensional chemical genetic analysis of diversity-orientated synthesis-derived deacetylase inhibitors using cell-based assays. Chem.Biol. 10 383. PMID: 12770821.

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