

# Certificate of Analysis

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**Product Name:** Dolastatin 10 trifluoroacetate

**Catalog No.:** 3375

**Batch No.:** 3

**CAS Number:** 2342568-65-2

**IUPAC Name:** *N,N*-Dimethyl-L-valyl-*N*-[(1*S*,2*R*)-2-methoxy-4-[(2*S*)-2-[(1*R*,2*R*)-1-methoxy-2-methyl-3-oxo-3-[(1*S*)-2-phenyl-1-(2-thiazol)ethyl]amino]propyl]-1-pyrrolidinyl]-1-[(1*S*)-1-methylpropyl]-4-oxobutyl]-*N*-methyl-L-valinamide trifluoroacetate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>42</sub>H<sub>68</sub>N<sub>6</sub>O<sub>6</sub>S.CF<sub>3</sub>CO<sub>2</sub>H

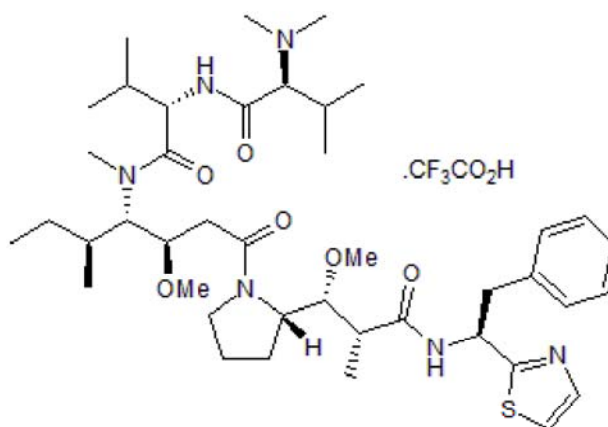
**Batch Molecular Weight:** 899.11

**Physical Appearance:** White solid

**Solubility:** Soluble in DMSO

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows >95% purity

**Mass Spectrum:** Consistent with structure

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

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**Description:**

Dolastatin 10 trifluoroacetate is a tubulin polymerization inhibitor. Noncompetitively inhibits binding of radiolabeled vincristine to tubulin ( $K_i = 1.4 \mu\text{M}$ ) and induces tubulin aggregation in vitro.

**Physical and Chemical Properties:**

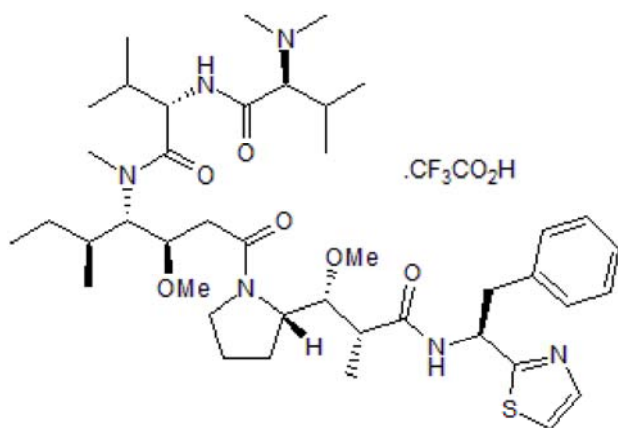
Batch Molecular Formula:  $\text{C}_{42}\text{H}_{68}\text{N}_6\text{O}_6\text{S} \cdot \text{CF}_3\text{CO}_2\text{H}$

Batch Molecular Weight: 899.11

Physical Appearance: White solid

**Minimum Purity:**  $\geq 95\%$

**Batch Molecular Structure:**



**Storage:** Store at  $-20^\circ\text{C}$

**Solubility & Usage Info:**

Soluble in DMSO

This product is supplied as a lyophilized solid and may 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  $45\text{--}60^\circ\text{C}$  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  $-20^\circ\text{C}$  or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Bai et al** (1995) Interaction of dolastatin 10 with tubulin: induction of aggregation and binding and dissociation reactions. *Mol.Pharmacol.* **47** 965. PMID: 7746283.

**Bai et al** (1990) Binding of dolastatin 10 to tubulin at a distinct site for peptide antimitotic agents near the exchangeable nucleotide and vinca alkaloid sites. *J.Biol.Chem.* **265** 17141. PMID: 2211617.

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