

## Certificate of Analysis

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**Product Name:** Linezolid

**Catalog No.:** 3765

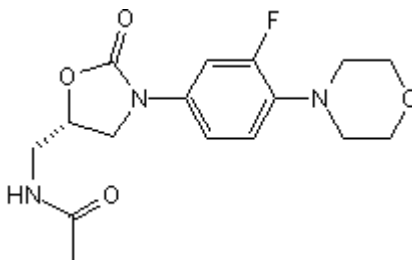
**Batch No.:** 1

CAS Number: 165800-03-3

IUPAC Name: *N*-[[[(5*S*)-3-[3-Fluoro-4-(4-morpholinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl]-acetamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>20</sub>FN<sub>3</sub>O<sub>4</sub>  
**Batch Molecular Weight:** 337.35  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 25 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = -12.2 (Concentration = 0.9, Solvent = Chloroform)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	56.97	5.98	12.46
Found	57.13	6.04	12.44

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

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**Description:**

Oxazolidinone antibiotic. Inhibits bacterial protein synthesis prior to chain initiation. Displays potent antibacterial activity against a variety of multidrug-resistant gram-positive microbes in vitro and in vivo.

**Physical and Chemical Properties:**

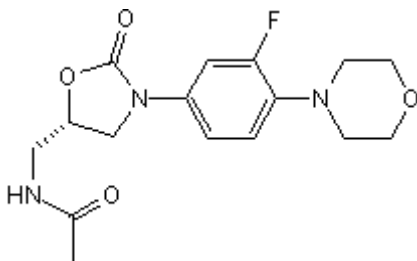
Batch Molecular Formula: C<sub>16</sub>H<sub>20</sub>FN<sub>3</sub>O<sub>4</sub>

Batch Molecular Weight: 337.35

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Brickner et al** (1996) Synthesis and antibacterial activity of U-100592 and U-100766, two oxazolidinone antibacterial agents for the potential treatment of multi-drug-resistant gram-positive bacterial infections. *J.Med.Chem.* **39** 673. PMID: 8576909.

**Ford et al** (1996) In vivo activities of U-100592 and U-100766, novel oxazolidinone antimicrobial agents, against experimental bacterial infections. *Antimicrob.Agents Chemother.* **40** 1508. PMID: 8726028.

**Brickner et al** (2008) Linezolid (ZYVOX), the first member of a completely new class of antibacterial agents for treatment of serious gram-positive infections. *J.Med.Chem.* **51** 1981. PMID: 18338841.

**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 25 mM

**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.

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