

Product Name: Daptomycin

Catalog No.: 3917

Batch No.: 2

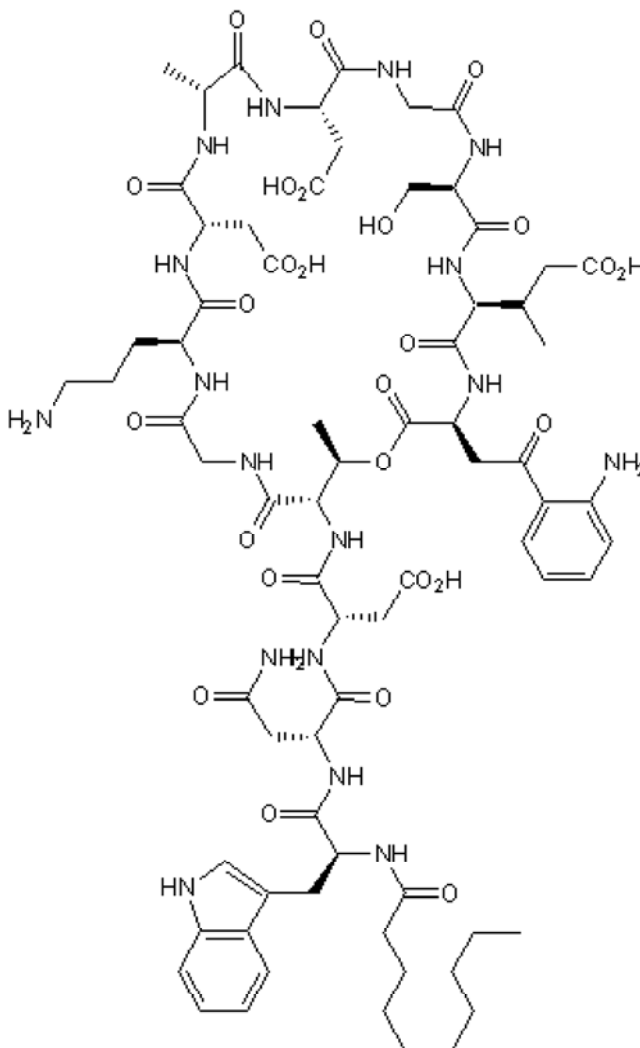
CAS Number: 103060-53-3

IUPAC Name: *N*-(1-Oxodecyl)

-L-tryptophyl-D-asparaginyl-L- α -aspartyl-L-threonylglycyl-L-ornithinyl-L- α -aspartyl-D-alanyl-L- α -aspartylglycyl-D-seryl-(3*R*)-3-methyl-L- α -glutamyl- α ,2-diamino- γ -oxo-benzene butanoic acid (13-4) lactone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇₂H₁₀₁N₁₇O₂₆·4H₂O
Batch Molecular Weight: 1692.73
Physical Appearance: Pale yellow solid
Solubility: DMSO to 100 mM
water to 20 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.6% purity

¹H NMR: Consistent with structure
 Caution - Not Fully Tested - Research Use Only - Not For Human or Veterinary Use

Mass Spectrum: Consistent with structure

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Found 51.17 6.48 13.92

Product Name: Daptomycin

Catalog No.: 3917

Batch No.: 2

CAS Number: 103060-53-3

IUPAC Name: *N*-(1-Oxodecyl)

Name: *N*-(1-oxodecyl)-L-tryptophyl-D-asparaginyl-L-aspartyl-L-threonylglycyl-L-ornithinyl-L-α-aspartyl-D-alanyl-L-α-aspartylglycyl-D-seryl-(3*R*)-3-methyl-L-α-glutamyl-α,2-diamino-γ-oxo-benzene butanoic acid (13-4) lactone

Description:

Lipopeptide, calcium-dependent antibiotic. Exhibits potent bacteriocidal activity against most gram-positive bacteria in vitro and in vivo, including antibiotic-resistant strains such as MRSA and VRE. Disrupts plasma membrane function; activity results in membrane depolarization leading to inhibition of protein, DNA and RNA synthesis.

Physical and Chemical Properties:

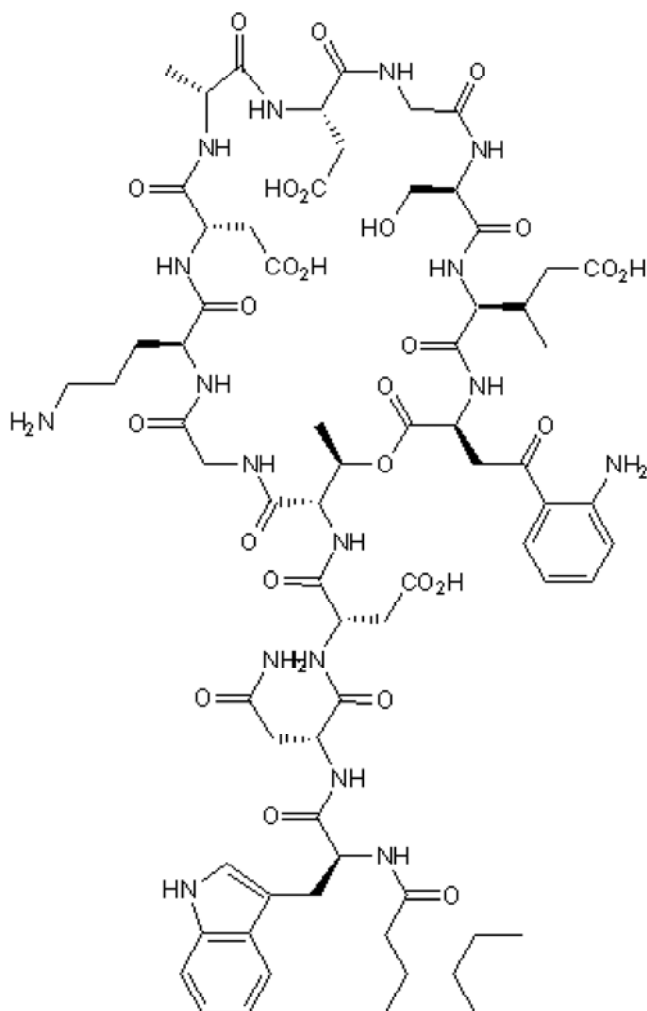
Batch Molecular Formula: C₇₂H₁₀₁N₁₇O₂₆·4H₂O

Batch Molecular Weight: 1692.73

Physical Appearance: Pale yellow solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

water to 20 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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Steenbergen *et al* (2005) Daptomycin: a lipopeptide antibiotic for the treatment of serious gram-positive infections. *J.Antimicrob Chemother.* **55** 283. PMID: 15705644.

Jung *et al* (2004) Structural transitions as determinants of the action of the calcium-dependent antibiotic dapto. *Chem.Biol.* **11** 949. PMID: 15271353.