Certificate of Analysis

Product Name: **Jasplakinolide** **Catalog No.: 2792** **Batch No.: 10**

CAS Number: 102396-24-7

IUPAC Name: Cyclo[(3*R*)-3-(4-hydroxyphenyl)-β-alanyl-(2*S*,4*E*,6*R*,8*S*)-8-hydroxy-2,4,6-trimethyl-4-nonenoyl-L-alanyl-2-bromo-*N*-methyl-D-tryptophyl]

1. PHYSICAL AND CHEMICAL PROPERTIES

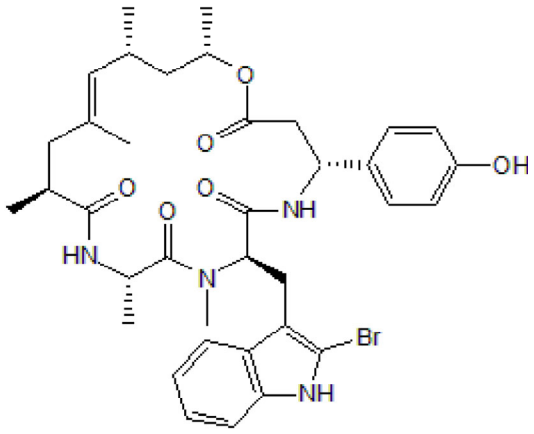
Batch Molecular Formula: $C_{36}H_{45}BrN_4O_6$

Batch Molecular Weight: 709.67

Solubility: DMSO to 2 mg/ml

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity

Mass Spectrum: Consistent with structure

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Description:

Jasplakinolide rapidly stabilizes pre-formed actin filaments and inhibits their disassembly in vitro. Also induces polymerization of actin monomers into F-actin in vivo. Shown to bind to F-actin competitively with phalloidin (Cat. No. 4535) (K_d ~ 15 nM). Exhibits antifungal and antiproliferative effects (IC_{50} = 35 nM for antiproliferative activity in PC3 cells). Cell permeable.

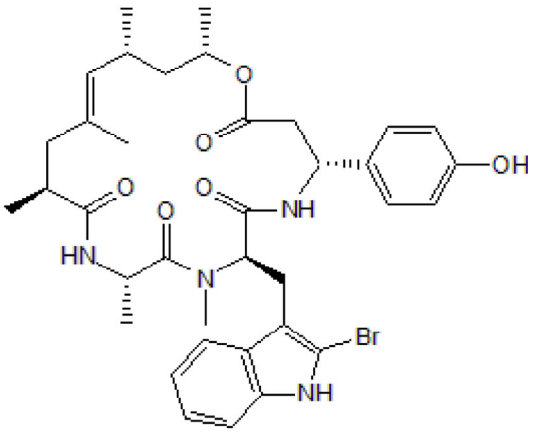
Physical and Chemical Properties:

Batch Molecular Formula: $C_{36}H_{45}BrN_4O_6$

Batch Molecular Weight: 709.67

Minimum Purity: ≥97%

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 2 mg/ml

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:

Bubb *et al* (2000) Effects of jasplakinolide on the kinetics of actin polymerization. J.Biol.Chem. ***275*** 5163. PMID: 10671562.

Cramer (1999) Role of actin-filament disassembly in lamellipodium protrusion in motile cells revealed using the drug jasplakinolide. Curr.Biol. ***9*** 1095. PMID: 10531004.

Bubb *et al* (1995) Jasplakinolide, a cytotoxic natural product, induces actin polymerization and competitively inhibits the binding of phalloidin to F-actin. J.Biol.Chem. ***269*** 14869. PMID: 8195116.