

Product Name: Jasplakinolide

Catalog No.: 2792

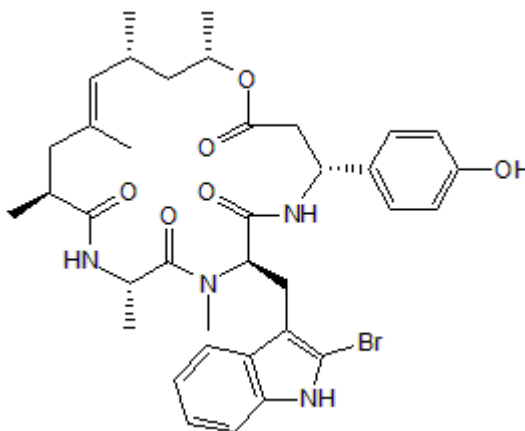
Batch No.: 5

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 ₄ O ₆
Batch Molecular Weight:	709.67
Physical Appearance:	Off White lyophilised solid
Solubility:	DMSO to 2 mg/ml
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 98.7% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure

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

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Description:

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) ($K_d \sim 15$ nM). Exhibits antifungal and antiproliferative effects ($IC_{50} = 35$ nM for antiproliferative activity in PC3 cells). Cell permeable.

Physical and Chemical Properties:

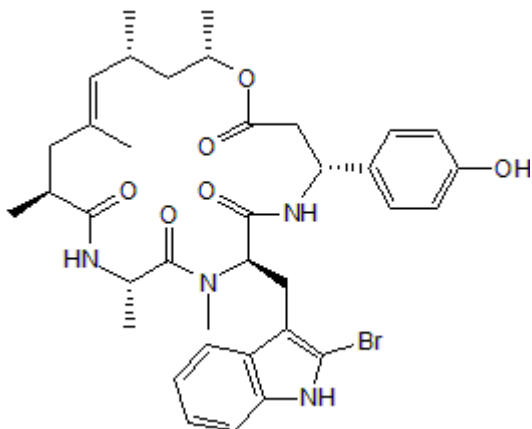
Batch Molecular Formula: $C_{36}H_{45}BrN_4O_6$

Batch Molecular Weight: 709.67

Physical Appearance: Off White lyophilised solid

Minimum Purity: >97%

Batch Molecular Structure:



References:

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.

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

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

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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