Product Name: **Latrunculin A** **Catalog No.: 3973** **Batch No.: 26**

CAS Number: 76343-93-6

IUPAC Name: 4-[(1*R*,4*Z*,8*E*,10*Z*,12*S*,15*R*, 17*R*)-17-Hydroxy-5,12-dimethyl-3-oxo-2,16-dioxabicyclo[13.3.1]nonadeca-4,8,10-trien-17-yl)-2-thiazolidinone

1. PHYSICAL AND CHEMICAL PROPERTIES

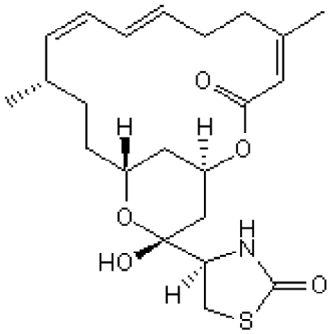
Batch Molecular Formula: $C_{22}H_{31}NO_5S$

Batch Molecular Weight: 421.55

Physical Appearance: Light yellow solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

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Description:

Latrunculin A (LAT-A) is a marine toxin that binds ATP-actin (K_d = 0.1 μM), G-actin (K_d = 0.19 μM), ADP-Pi-actin (K_d = 0.4 μM) and ADP-actin (K_d = 4.7 μM) monomers in cells. By binding and sequestering actin monomers and preventing F-actin filament formation, LAT-A inhibits actin polymerization without significant direct effects on microtubules or other cytoskeletal components. Latrunculin A can be used to transiently disrupt the actin cytoskeleton to investigate actin-dependent cellular functions including motility, shape maintenance, intracellular trafficking, and mechanotransduction. Latrunculin A displays anti-invasive activity against h... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

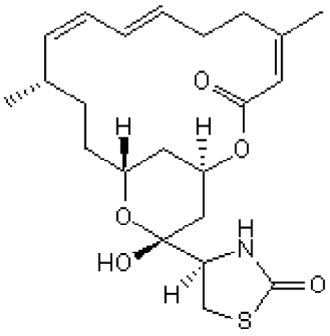
Batch Molecular Formula: $C_{22}H_{31}NO_5S$

Batch Molecular Weight: 421.55

Physical Appearance: Light yellow solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C. This product is packaged under an inert atmosphere.

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:

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:

El Sayed *et al* (2008) Latrunculin A and its C-17-O-carbamates inhibit prostate tumor cell invasion and HIF-1 activation in breast tumor cells. J.Nat.Prod. ***71*** 396. PMID: 38348663.

Morton *et al* (2000) Latrunculin alters the actin-monomer subunit interface to prevent polymerization. Nat.Cell Biol. ***2*** 376. PMID: 10854330.

Yarmola *et al* (2000) Actin-latrunculin A structure and function. J.Biol.Chem. ***275*** 28120. PMID: 10859320.