

**Product Name:** α-Amanitin

**Catalog No.:** 4025

**Batch No.:** 8

CAS Number: 23109-05-9

EC Number: 245-432-2

IUPAC Name: cyclo[L-Asparaginyl-4-hydroxy-L-proly-(*R*-4,5-dihydroxy-L-isoileucyl-6-hydroxy-2-mercapto-L-tryptophylglycyl-L-isoileucylglycyl-L-cysteinyl)cyclic (4→8)-sulfide (*R*)-*S*-oxide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>39</sub>H<sub>54</sub>N<sub>10</sub>O<sub>14</sub>S

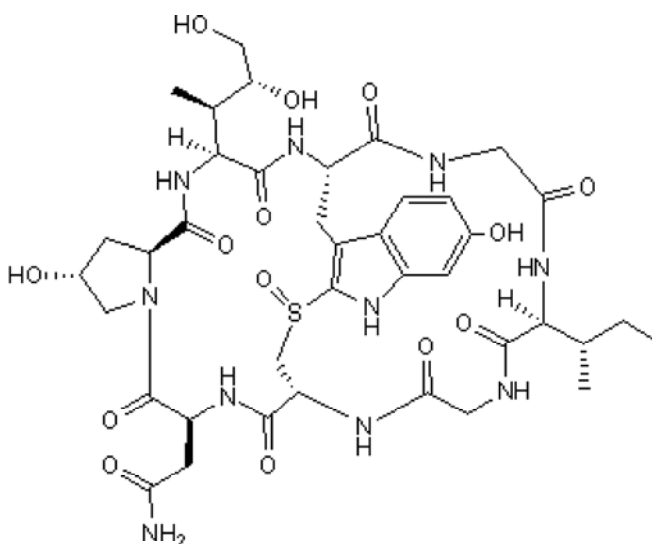
**Batch Molecular Weight:** 918.97

**Physical Appearance:** White solid

**Solubility:** ethanol to 5 mM  
water to 5 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 96% purity

**Mass Spectrum:** Consistent with structure

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

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IUPAC Name: cyclo[L-Asparaginy-4-hydroxy-L-proly-(R-4,5-dihydroxy-L-iso-leucyl-6-hydroxy-2-mercapto-L-tryptophylglycyl-L-iso-leucylglycyl-L-cysteiny)]cyclic (4→8)-sulfide (R)-S-oxide

**Description:**

Inhibitor of RNA polymerase II. Inhibits transcription in eukaryotic cells. Binds and blocks the largest subunits of RNA polymerase II, preventing new ribonucleotides from incorporating into the nascent RNA chain. Potent amatoxin.

**Physical and Chemical Properties:**

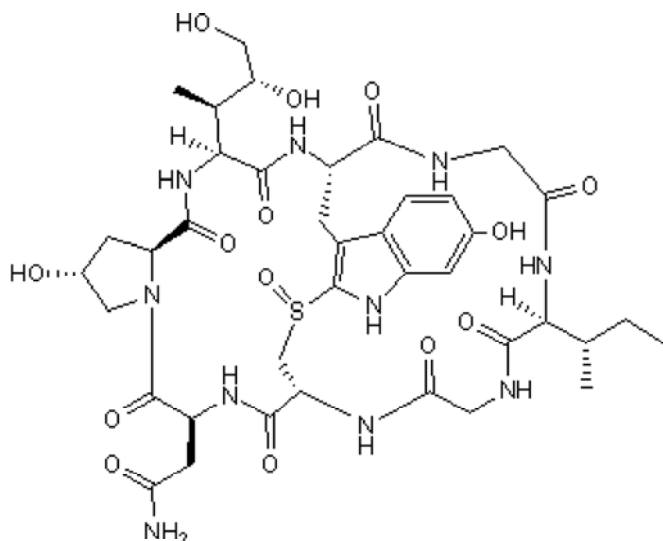
Batch Molecular Formula: C<sub>39</sub>H<sub>54</sub>N<sub>10</sub>O<sub>14</sub>S

Batch Molecular Weight: 918.97

Physical Appearance: White solid

**Minimum Purity:** ≥95%

**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:**

ethanol to 5 mM

water to 5 mM

When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may 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. 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.

**References:**

Raha *et al* (2010) Close association of RNA polymerase II and many transcription factors with Pol III genes. *Proc.Natl.Acad.Sci.* **107** 3639.

Casse *et al* (1999) The transcriptional inhibitors, actinomycin D and  $\alpha$ -amanitin, activate the HIV-1 promoter and favor phosphorylation of the RNA polymerase II C-terminal domain. *J.Biol.Chem.* **274** 16097. PMID: 10347161.

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