TOCRIS
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Print Date: Jan 31st 2023

Certificate of Analysis

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Product Name: **Aphidicolin** **Catalog No.: 5736** **Batch No.: 5**

CAS Number: 38966-21-1

IUPAC Name: (3*R*,4*R*,4a*R*,6a*S*,8*R*,9*R*,11a*S*,11b*S*)-Tetradecahydro-3,9-dihydroxy-4,11b-dimethyl-8,11a-methano-11aH-cyclohepta[*a*]naphthalene-4,9-dimethanol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{34}O_4.½H_2O$

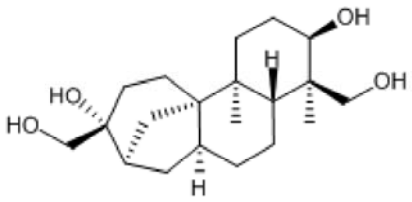
Batch Molecular Weight: 347.49

Physical Appearance: White to off-white solid

Solubility: DMSO to 25 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.13	10.15	
Found	68.86	10.06	

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

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Description:

Aphidicolin is a DNA polymerase α, δ and ε inhibitor. Exhibits selectivity over DNA polymerase β and γ. Antimitotic, antibiotic and antiviral.

Physical and Chemical Properties:

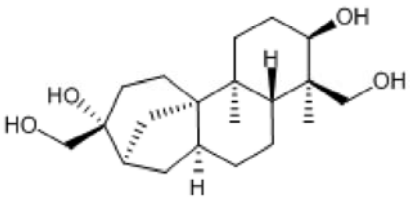
Batch Molecular Formula: $C_{20}H_{34}O_4.½H_2O$

Batch Molecular Weight: 347.49

Physical Appearance: White to off-white solid

Minimum Purity: ≥98%

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 25 mM

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:

Syväoja *et al* (1990) DNA polymerases α, δ, and ε: three distinct enzymes from HeLa cells. Proc.Natl.Acad.Sci.U.S.A. ***87*** 6664. PMID: 1975694.

Spadari *et al* (1984) Control of DNA replication and cell proliferation in eukaryotes by aphidicolin. Toxicol.Pathol. ***12*** 143. PMID: 11478315.

Bucknall *et al* (1973) Antiviral effects of aphidicolin, a new antibiotic produced by *Cephalosporium aphidicola*. Antimicrob.Agents Chemother. ***4*** 294. PMID: 4357181.