Certificate of Analysis

Product Name: **Cytochalasin D** **Catalog No.: 1233** **Batch No.: 10**

CAS Number: 22144-77-0 EC Number: 244-804-1

IUPAC Name: (7*S*,13*E*,16*S*,18*R*,19*E*,21*R*)-21-(Acetyloxy)-7,18-dihydroxy-16,18-dimethyl-10-phenyl[11]cytochalasa-6(12),13,19-triene-1,17-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{30}H_{37}NO_6$.

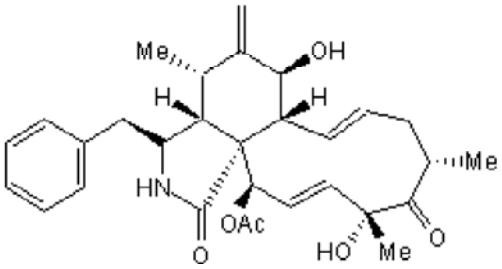
Batch Molecular Weight: 507.63

Physical Appearance: White solid

Solubility: ethanol to 5 mg/ml with gentle warming
DMSO to 25 mg/ml

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.98	7.35	2.76
Found	70.9	7.15	2.66

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Product Information

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Description:

Cytochalasin D is a potent disruptor of actin filament function. Alters tight junction permeability. Unlike cytochalasin B (Cat. No. 5474), does not inhibit monosaccharide transport across the plasma membrane.

Physical and Chemical Properties:

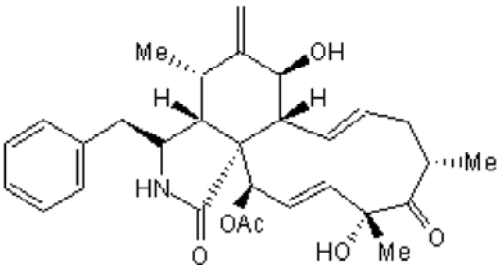
Batch Molecular Formula: $C_{30}H_{37}NO_6$.

Batch Molecular Weight: 507.63

Physical Appearance: White solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

ethanol to 5 mg/ml with gentle warming
DMSO to 25 mg/ml

When purchsed 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:

Abedi and Zachary (1998) Cytochalasin D stimulation of tyrosine phosphorylation and phosphotyrosine-associated kinase activity in vascular smooth muscle cells. Biochem.Biophys.Res.Commun. ***245*** 646. PMID: 9588169.

Stevenson and Begg (1994) Concentration-dependent effects of cytochalasin D on tight junctions and actin filaments in MDCK epithelial cells. J.Cell Sci. ***107*** 367. PMID: 8006058.

Carlier *et al* (1986) Interaction of cytochalasin D with actin filaments in the presence of ADP and ATP. J.Biol.Chem. ***261*** 2041. PMID: 3944126.