

Certificate of Analysis

Print Date: May 6th 2022

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Product Name: Cytochalasin B Catalog No.: 5474 Batch No.: 4

CAS Number: 14930-96-2

IUPAC Name: (3E,5R,9R,11E,12aS,13S,15S,15aS,16S,18aS)-6,7,8,9,10,12a,13,14,15,15a,16,17-Dodecahydro-5,13-

dihydroxy-9,15-dimethyl-14-methylene-16-(phenylmethyl)-2H-oxacyclotetradecino[2,3-d]isoindole-2,18(5H)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{29}H_{37}NO_5$ Batch Molecular Weight:479.61Physical Appearance:White solid

Solubility: DMSO to 10 mM with gentle warming

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

Melting Point: At 225°C

HPLC: Shows 99.1% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 72.62 7.78 2.92 Found 72.66 8.08 2.99

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



Product Information

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dihydroxy-9,15-dimethyl-14-methylene-16-(phenylmethyl)-2H-oxacyclotetradecino[2,3-d]isoindole-2,18(5H)-dione

Description:

Cytochalasin B is an inhibitor of actin polymerization. Inhibits cell division, migration and glucose transport. Causes G_2/M cell cycle arrest and apoptosis in HCT-116 colorectal carcinoma cells. Cell permeable.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₉H₃₇NO₅ Batch Molecular Weight: 479.61 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 10 mM with gentle warming

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:

Buldak *et al* (2014) Changes in subcellular localization of visfatin in human colorectal HCT-116 carcinoma cell line after cytochalasin B treatment. Eur.J.Histochem. *58* 2408. PMID: 25308845.

Whitesell et al (2005) Compartmentalization of transport and phosphorylation of glucose in a hepatoma cell line. Biochem.J. 386 245. PMID: 15473866.

Theodoropoulos *et al* (1994) Cytochalasin B may shorten actin filaments by a mechanism independent of barbed end capping. Biochem.Pharmacol. *47* 1875. PMID: 8204105.