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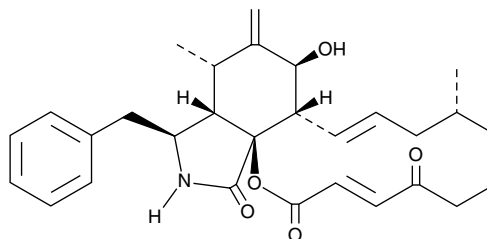
Product Information



Cytochalasin A

Item No. 11327

CAS Registry No.: 14110-64-6
Formal Name: (3E,9R,11E,12aS,13S,15S,15aS,16S,18aS)-6,7,8,9,10,12a,13,14,15,15a,16,17-dodecahydro-13-hydroxy-9,15-dimethyl-14-methylene-16-(phenylmethyl)-2H-oxacyclotetradecino[2,3-d]isoindole-2,5,18-trione
Synonyms: Dehydrophomin, NSC 174119, Phomin
MF: C₂₉H₃₅NO₅
FW: 477.6
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that cytochalasin A be stored as supplied at -20°C. It should be stable for at least two years.

Cytochalasin A is supplied as a crystalline solid. A stock solution may be made by dissolving the cytochalasin A in the solvent of choice. Cytochalasin A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of cytochalasin A in ethanol and DMSO is approximately 20 mg/ml and approximately 30 mg/ml in DMF.

Cytochalasin A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cytochalasin A should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Cytochalasin A has a solubility of approximately 0.05 mg/ml in a 1:20 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

The cytochalasins are cell-permeable fungal metabolites which inhibit actin polymerization.¹⁻⁴ This interferes with such diverse processes as cell movement, growth, phagocytosis, degranulation, and secretion.⁵⁻⁸ Cytochalasin A is an oxidized analog of cytochalasin B which uniquely inhibits HIV-1 protease (IC₅₀ = 3 μM).⁹ Cytochalasins A and B differ from other cytochalasins in being able to rapidly and reversibly inhibit glucose transport by competitively binding glucose transporters (K_i = 4.0 and 0.6 μM, respectively).^{10,11} Cytochalasin A also induces the phosphorylation of the tyrosine phosphatase PTP3 of *Dictyostelium*, activating STATc.¹²

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