

PRODUCT INFORMATION



Cytochalasin B

Item No. 11328

CAS Registry No.: 14930-96-2
Formal Name: (3E,5R,9R,11E,12aS, 3S,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-2H-oxacyclotetradecino[2,3-d]isoindole-2,18(5H)-dione

Synonyms: NSC 107658, Phomin

MF: C₂₉H₃₇NO₅

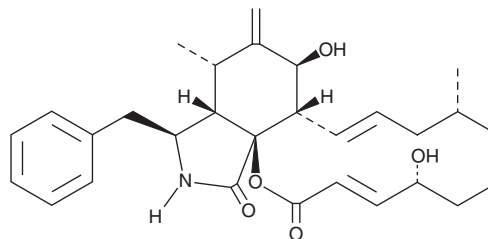
FW: 479.6

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Cytochalasin B is supplied as a crystalline solid. A stock solution may be made by dissolving the cytochalasin B in the solvent of choice. Cytochalasin B 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 B in ethanol and DMSO is approximately 20 mg/ml, and in DMF it is approximately 30 mg/ml.

Cytochalasin B is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cytochalasin B should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Cytochalasin B 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.

Description

Cytochalasin B is a cell-permeable mycotoxin which binds to the barbed end of actin, reversibly inhibiting the elongation and shortening of actin filaments.¹ By disrupting actin polymerization, cytochalasin B blocks diverse cellular functions, including cell division, migration, phagocytosis, exocytosis, chemotaxis, and glucose transport.²⁻⁴ Cytochalasin B is broadly used in cytological studies involving any of these many processes that depend on actin polymerization.⁵⁻⁷

References

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3. Spudich, J.A. and Lin, S. *Proc. Nat. Acad. Sci. USA* **69(2)**, 442-446 (1972).
4. Estensen, R.D. and Plegemann, P.G.W. *Proc. Nat. Acad. Sci. USA* **69(6)**, 1430-1434 (1972).
5. Snezhko, A., Barlan, K., Aranson, I.S., *et al.* *Biophys. J.* **99**, 3216-3223 (2010).
6. Yu, Y., Dumollard, R., Rossbach, A., *et al.* *J. Cell. Physiol.* **224(3)**, 672-680 (2010).
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WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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