



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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- Expressversand

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# 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:** C<sub>29</sub>H<sub>37</sub>NO<sub>5</sub>

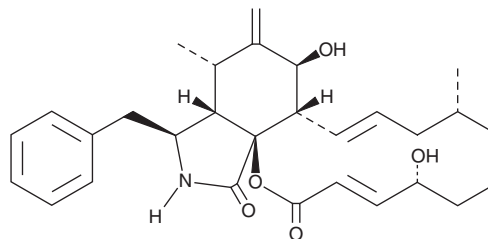
**FW:** 479.6

**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.<sup>1</sup> By disrupting actin polymerization, cytochalasin B blocks diverse cellular functions, including cell division, migration, phagocytosis, exocytosis, chemotaxis, and glucose transport.<sup>2-4</sup> Cytochalasin B is broadly used in cytological studies involving any of these many processes that depend on actin polymerization.<sup>5-7</sup>

### References

1. Theodoropoulos, P.A., Gravanis, A., Tsapara, A., *et al.* *Biochem. Pharmacol.* **47(10)**, 1875-1881 (1994).
2. Steinberg, M.S. and Wiseman, L.L. *J. Cell Biol.* **55**, 606-615 (1972).
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).
7. Yu, Y., Maguire, T.G., and Alwine, J.C. *J. Virol.* **85(4)**, 1573-1580 (2011).

#### 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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