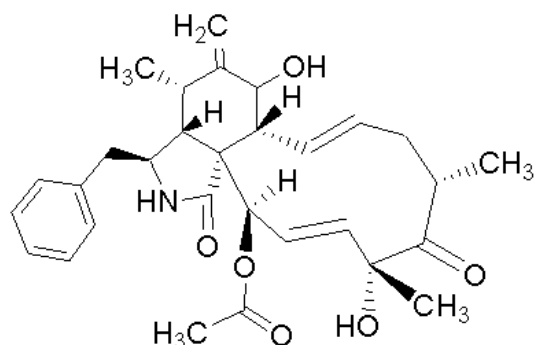


## Product Information

### Cytochalasin D Ready Made Solution from *Zygosporium mansonii*

Catalog Number **C2618**  
Storage Temperature  $-20\text{ }^{\circ}\text{C}$

CAS RN 22144-77-0  
Synonym: Zygosporin A



#### Product Description

Molecular Formula:  $\text{C}_{30}\text{H}_{37}\text{NO}_6$   
Molecular Weight: 507.62

The cytochalasins (Greek *cytos*, cell; *chalis*, relaxation) are a group of related fungal metabolites. They were discovered in 1964 during the screening of mold filtrates for possible biological activity on cells.<sup>1</sup> These fungal toxins are related by chemical structure. All are characterized by a highly substituted hydrogenated isoindole ring to which is fused a macrocyclic ring. The macrocyclic ring may vary from 11–14 atoms and may be either a carbocycle or lactone. These fungal toxins also share a number of unusual, interesting, and characteristic effects on animal cells.

Cytochalasins C and D are isomeric metabolites of *Metarrhizium anisopliae*,<sup>1</sup> while Cytochalasin B is a metabolite of the fungus *Drechslera* (previously *Helminthosporium dematioideum*). Cytochalasin D possesses antibiotic<sup>2</sup> and antitumor activities.<sup>3</sup> It also impairs maintenance of long term potentiation (LTP) of actin filaments.<sup>4</sup> It is implicated in promoting conditions favorable for depolymerizing actin.<sup>5</sup>

#### Reagent

Cytochalasin D Ready Made Solution is supplied as a 5 mg/ml, 0.2  $\mu\text{m}$  filtered solution in dimethyl sulfoxide (DMSO).

**Note:** The final concentration of DMSO in the aqueous working medium should not exceed 0.1% because higher DMSO concentrations can adversely affect many cultured cells. Dilute the product in the appropriate aqueous medium to provide a physiologically acceptable final concentration. The physiologically desired working concentrations vary for different applications.

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices. Cytochalasins are regarded as highly toxic and possible teratogens. Handle in a manner to avoid/minimize direct body contact and inhalation.

#### Storage/Stability

The product is stable for two years when stored at  $-20\text{ }^{\circ}\text{C}$ .

#### References

1. Aldridge, D.C., and Turner, W.B., *J. Chem. Soc. (C)*, 923, (1969).
2. Betina, V., and Micekova, D.Z., *Allg. Mikrobiol.*, **12**, 355, (1972) and *Chem. Abstr.* **77**, 160508q, (1972).
3. Katagiri, K., and Matsuura, S., *J. Antibiotic.*, **24**, 722, (1971).
4. Krucker, T., et al., *Proc. Natl. Acad. Sci. USA*, **97**, 6856 (2000).
5. Dubinsky, W.P., et al., *Proc. Natl. Acad. Sci. USA*, **96**, 9421, (1999).

VNC,ESS,PHC,MAM 07/07-1

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.