



## BML-T109R Cytochalasin D

Ultra-pure; inhibits actin polymerization; K<sup>+</sup> channel blocker

### Product Number/Sizes

BML-T109-0001 1 mg

Replaces Prod. #: **ALX-380-031**

Cytochalasin D is a cell-permeable fungal toxin which binds to the barbed end of actin filaments inhibiting both the association and dissociation of subunits. It causes the disruption of actin filaments and inhibition of actin polymerization. It is about 10-fold more effective than cytochalasin B and does not inhibit monosaccharide transport across cell membranes. Inactivates low conductance K<sup>+</sup> channels. Modulates CD4 cross-linking in T-lymphocytes and increases intracellular Ca<sup>2+</sup> levels. Exhibits antitumor activity. Induces apoptosis.

### Product Specifications

FORMULA: C<sub>30</sub>H<sub>37</sub>N<sub>6</sub>O<sub>6</sub>

MW: 507.6

PURITY: <sup>3</sup>98%

APPEARANCE: White to off-white solid

CAS: 22144-77-0

SOURCE/HOST: Isolated from *Zygosporium mansonii*

SOLUBILITY: Soluble in methylene chloride (10mg/ml) or DMSO (2mg/ml)

LONG TERM STORAGE: -20°C

HAZARD: VERY TOXIC.

HANDLING: Protect from light.

### Product Literature References

*Hexokinase translocation during neutrophil activation, chemotaxis, and phagocytosis: disruption by cytochalasin D, dexamethasone, and indomethacin* J.B. Huang et al. Cell Immunol. **218** 95 (2002)

*Disruption of actin microfilaments by cytochalasin D leads to activation of p53* S. N. Rubtsova et al. FEBS Lett. **430** 353 (1998)

*Signaling pathways involved in thrombin-induced cell protection* F.M. Donovan & D.D. Cunningham J. Biol. Chem. **J Biol Chem** 12746 (1998)

*The role of actin-binding protein 280 in integrin-dependent mechanoprotection* M. Glogauer et al. J. Biol. Chem. **273** 1689 (1998)

*Myosin-actin interaction plays an important role in human immunodeficiency virus type 1 release from host cells* H. Sasaki et al. PNAS **92** 2026 (1995)

*Cytochalasin D modulates CD4 crosslinking sensitive mitogenic signal in T lymphocytes* A. Aszalos et al. Cell. Immunol. **157** 81 (1994)

*Involvement of actin cytoskeleton in modulation of apical K channel activity in rat collecting duct* W.H. Wang et al. *Am. J. Physiol.* **267** F592 (1994)

*Effects of cytochalasin and phalloidin on actin* J.A. Cooper *J. Cell. Biol.* **105** 1473 (1987)

*Actin polymerization. The mechanism of action of cytochalasin D* D.W. Goddette & C. Frieden *J. Biol. Chem.* **261** 15974 (1986)

*Action of cytochalasin D on cytoskeletal networks* M. Schliwa *J. Cell. Biol.* **92** 79 (1982)

*Cytochalasins block actin filament elongation by binding to high affinity sites associated with F-actin* M.D. Flangan & S. Li *J. Biol. Chem.* **J Biol Chem** 835 (1980)

*Antitumor activity of cytochalasin D* K. Katagiri & S. Matsuura *J. Antibiot. (Tokyo)* **24** 722 (1971)

### **Background/Technical Information**

Please click [here](#) for the comprehensive product datasheet.

Revised 22-Feb-12

GENTAUR