



LKT Laboratories, Inc.

Latrunculin B

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID L0077

CAS No. 76343-94-7

Chemical Name

Synonym

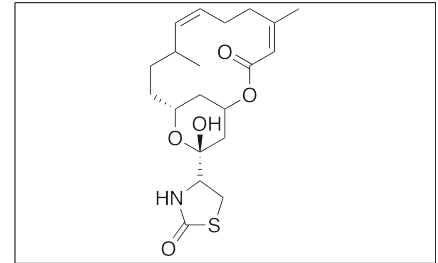
Formula $C_{20}H_{29}NO_5S$

Formula Wt. 395.51

Melting Point

Purity $\geq 98\%$

Solubility Ethanol



Bulk quantities available upon request

Product ID	Size
L0077	1 mg

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description

Latrunculin B is a thiazolidinone macrolide found in the Red Sea sponge. Latrunculin acts as an actin inhibitor, binding to G-actin and preventing its transition to F-actin and actin polymerization. This action results in inhibition of rhizoid formation in plants and alterations in Ca^{2+} trafficking in macrophages. Latrunculin B also exhibits anticancer activity; it induces breaks in double-stranded DNA and increases levels of Bax to induce apoptosis in vitro. Additionally, this compound induces actin microfilament destabilization in prostate cancer cells.

References Ahn YT, Shin IJ, Kim JM, et al. Counteracting the activation of pAkt by inhibition of MEK/Erk inhibition reduces actin disruption-mediated apoptosis in PTEN-null PC3M prostate cancer cell lines. *Oncol Lett.* 2013 Nov;6(5):1383-1389. PMID: 24179529.

Helal MA, Khalifa S, Ahmed S. Differential binding of latrunculins to G-actin: a molecular dynamics study. *J Chem Inf Model.* 2013 Sep 23;53(9):2369-75. PMID: 23988111.

Kudrimoti S, Ahmed SA, Daga PR, et al. Semisynthetic latrunculin B analogs: studies of actin docking support a proposed mechanism for latrunculin bioactivity. *Bioorg Med Chem.* 2009 Nov 1;17(21):7517-22. PMID: 19800245.

Yoshida K, Shimmen T. Involvement of actin filaments in rhizoid morphogenesis of Spirogyra. *Physiol Plant.* 2009 Jan;135(1):98-107. PMID: 19121103.

Kurilova LS, Krutetskaia ZI, Lebedev OE. Effect of latrunculin B, jasplakinolide and brefeldin A on the store-dependent Ca^{2+} entry in macrophages. *Tsitologiya.* 2006;48(10):867-74. PMID: 17162846.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.