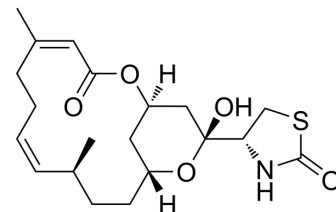


## Latrunculin B

Cat. No.:	HY-101848		
CAS No.:	76343-94-7		
Molecular Formula:	C <sub>20</sub> H <sub>29</sub> NO <sub>5</sub> S		
Molecular Weight:	395.51		
Target:	Fungal		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 25 mg/mL (63.21 mM; Need ultrasonic and warming)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.5284 mL	12.6419 mL	25.2838 mL
5 mM	0.5057 mL	2.5284 mL	5.0568 mL
10 mM	0.2528 mL	1.2642 mL	2.5284 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Latrunculin B, an antimicrobial marine alkaloid, is an actin polymerization inhibitor. Latrunculin B regulates pulmonary vein electrophysiological characteristics and attenuates stretch-induced arrhythmogenesis. Antifungal and antiprotozoal activity [1][2].

#### In Vitro

Latrunculin B displays growth inhibition of HeLa cells with an IC<sub>50</sub> value of 1.4 μM<sup>[1]</sup>. Latrunculin B modulates electrophysiological characteristics and arrhythmogenesis in pulmonary vein cardiomyocytes. Latrunculin B (100 nM) decreases the spontaneous electrical activity by 16±4% in pulmonary vein (PV) preparations. Latrunculin B (100 nM) decreases the late Na<sup>+</sup> current, L-type Ca<sup>2+</sup> current, Na<sup>+</sup>/Ca<sup>2+</sup> exchanger current, and stretch-activated BKCa current in PV cardiomyocytes. Latrunculin B reduces the transient outward K<sup>+</sup> current and ultra-rapid delayed rectifier K<sup>+</sup> current, but increases the delayed rectifier K<sup>+</sup> current in isolated PV cardiomyocytes. Latrunculin B (100 nM) decreases intracellular Ca<sup>2+</sup> transient and sarcoplasmic reticulum Ca<sup>2+</sup> content in PV cardiomyocytes. Latrunculin B attenuates stretch-induced increased spontaneous electrical activity and trigger activity<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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[1]. Diaa T A Youssef, et al. Magnificines A and B, Antimicrobial Marine Alkaloids Featuring a Tetrahydrooxazolo[3,2-a]azepine-2,5(3H,6H)-dione Backbone from the Red Sea Sponge *Negombata magnifica*. *Mar Drugs*. 2021 Apr 12;19(4):214.

[2]. Yen-Yu Lu, et al. Latrunculin B modulates electrophysiological characteristics and arrhythmogenesis in pulmonary vein cardiomyocytes. *Clin Sci (Lond)*. 2016 May;130(9):721-32.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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