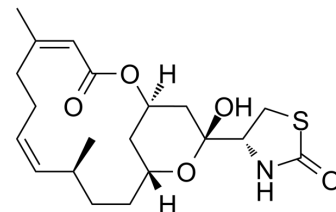


Latrunculin B

Cat. No.:	HY-101848	
CAS No.:	76343-94-7	
Molecular Formula:	C ₂₀ H ₂₉ NO ₅ S	
Molecular Weight:	395.51	
Target:	Fungal	
Pathway:	Anti-infection	
Storage:	Pure form	-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	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	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 IC₅₀ value of 1.4 μM^[1]. 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⁺ current, L-type Ca²⁺ current, Na⁺/Ca²⁺ exchanger current, and stretch-activated BKCa current in PV cardiomyocytes. Latrunculin B reduces the transient outward K⁺ current and ultra-rapid delayed rectifier K⁺ current, but increases the delayed rectifier K⁺ current in isolated PV cardiomyocytes. Latrunculin B (100 nM) decreases intracellular Ca²⁺ transient and sarcoplasmic reticulum Ca²⁺ content in PV cardiomyocytes. Latrunculin B attenuates stretch-induced increased spontaneous electrical activity and trigger activity^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[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.

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

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