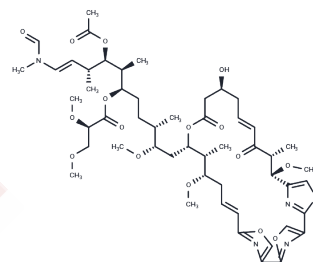


## Mycalolide B

## Chemical Properties

CAS No. :	122752-21-0
Formula:	C <sub>52</sub> H <sub>74</sub> N <sub>4</sub> O <sub>17</sub>
Molecular Weight:	1027.175
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Mycalolide-B is a marine sponge-derived compound that functions as a selective inhibitor of actomyosin ATPase. It effectively hinders ATP-induced contraction and Mg <sup>2+</sup> -ATPase activity in the absence of Ca <sup>2+</sup> .
Targets(IC50)	Others, Antibiotic
In vitro	Mycalolide-B, a macrolide antibiotic derived from a marine sponge, presents a potent cytotoxicity against L1210 murine leukemia cells with an IC <sub>50</sub> value ranging from 10-50 nM, attributed to its tris-oxazole structure. This compound effectively suppresses smooth muscle contractions and Ca <sup>2+</sup> -induced contractions in permeabilized smooth muscles without altering cytosolic Ca <sup>2+</sup> levels or myosin light chain phosphorylation. Additionally, Mycalolide-B impedes superprecipitation and Mg <sup>2+</sup> -ATPase activity stimulated by Ca <sup>2+</sup> , alongside inhibiting ATP-induced contraction and Mg <sup>2+</sup> -ATPase activity in the absence of Ca <sup>2+</sup> [1].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9735 mL	4.8677 mL	9.7354 mL
5 mM	0.1947 mL	0.9735 mL	1.9471 mL
10 mM	0.0974 mL	0.4868 mL	0.9735 mL
50 mM	0.0195 mL	0.0974 mL	0.1947 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Hori M, et al. Mycalolide-B, a novel and specific inhibitor of actomyosin ATPase isolated from marine sponge. FEBS Lett. 1993;322(2):151-154.

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