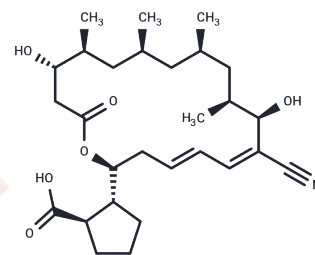


## Borrelidin

## Chemical Properties

CAS No. :	7184-60-3
Formula:	C <sub>28</sub> H <sub>43</sub> N <sub>6</sub> O
Molecular Weight:	489.64
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Borrelidin (Treponemycin) is a nitrogen-containing macrolide antibiotic isolated from <i>Streptomyces rochei</i> , which inhibits sugar-acyl-tRNA synthetase. It exhibits anticancer, antifungal, and anti-angiogenesis activities, inhibiting tumor growth and lung metastasis.
Targets(IC50)	Apoptosis,CDK,Antibiotic,Parasite
In vitro	Borrelidin can effectively inhibit the proliferation of ALL cell lines with a maximum 50% inhibitory concentration of 50 ng/mL. [1] The 50% inhibitory concentration (IC50) of Borrelidin for Cdc28/Cln2 was 24 μM. Borrelidin is a potent angiogenesis inhibitor with an IC50 value of 0.8 nM that induces apoptosis in angioblasts. [3] Borrelidin showed highly selective cytotoxicity to cancer cells and endothelial cell subpopulations. [4]
In vivo	Borrelidin (0.25 mg/kg intraperitoneally injected) in combination with fumagilin increased antimalarial activity in <i>Plasmodium berghei</i> -infected mice. [5]

## Solubility Information

Solubility	Ethanol: 100 mg/mL (204.23 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0423 mL	10.2116 mL	20.4232 mL
5 mM	0.4085 mL	2.0423 mL	4.0846 mL
10 mM	0.2042 mL	1.0212 mL	2.0423 mL
50 mM	0.0408 mL	0.2042 mL	0.4085 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

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Wakabayashi T, et al. Borrelidin is an angiogenesis inhibitor; disruption of angiogenic capillary vessels in a rat aorta matrix culture model. *J Antibiot (Tokyo)*. 1997 Aug;50(8):671-6.

Gafiuc D, et al. Borrelidin has limited anti-cancer effects in bcl-2 overexpressing breast cancer and leukemia cells and reveals toxicity in non-malignant breast epithelial cells. *J Appl Toxicol*. 2014 Oct;34(10):1109-13.

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