

Sublancin

Chemical Properties

CAS No. :	207410-26-2
Formula:	C162H254N50O51S5
Molecular Weight:	3878.38
Storage:	Keep away from moisture 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	Sublancin is an antimicrobial peptide that inhibits DNA replication, transcription, and translation without affecting membrane integrity, and suppresses glucose uptake through competition with the phosphotransferase system (PTS). Sublancin inhibits B. subtilis strain 168 ΔSPβ with a MIC of 0.312 μM [1][2].
Targets(IC50)	Antibacterial
In vitro	Sublancin (0-500 μM, 24 h) effectively inhibits methicillin-resistant Staphylococcus aureus (MRSA) with a minimum inhibitory concentration (MIC) of 15 μM, and demonstrates no cytotoxicity in RAW246.7 macrophages, mouse peritoneal macrophages, and human Caco-2 epithelial cells [1]. Cell Viability Assay [1] Cell Line: RAW246.7, Caco-2, P-Mac Concentration: 0-500 μM Incubation Time: 24 h Result: Maintained cell viability.
In vivo	Sublancin (0.5-4 mg/kg, administered intraperitoneally as a single dose) enhances the condition of mice infected with MRSA by inducing IL-6 and MCP-1, while mitigating intestinal inflammation through the inhibition of NF-κB activation [1]. Animal Model: Methicillin-resistant Staphylococcus aureus infected mice [1] Dosage: 0.5-4 mg/kg Administration: ip, single dose Result: Improved survival rate, reduced body weight

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2578 mL	1.2892 mL	2.5784 mL
5 mM	0.0516 mL	0.2578 mL	0.5157 mL
10 mM	0.0258 mL	0.1289 mL	0.2578 mL
50 mM	0.0052 mL	0.0258 mL	0.0516 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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