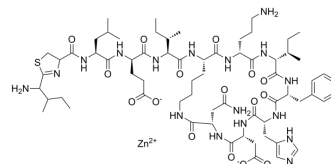


Bacitracin Zinc

Cat. No.:	HY-B0278
CAS No.:	1405-89-6
Molecular Formula:	C ₆₆ H ₁₀₁ N ₁₇ O ₁₆ SZn
Molecular Weight:	1486.06
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

1M HCl : 50 mg/mL (33.65 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)
 DMSO : < 1 mg/mL (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM	0.6729 mL	3.3646 mL	6.7292 mL
	5 mM	0.1346 mL	0.6729 mL	1.3458 mL	
	10 mM	0.0673 mL	0.3365 mL	0.6729 mL	

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

BIOLOGICAL ACTIVITY

Description

Bacitracin Zinc (Zinc bacitracin) is a dephosphorylation of the C55-isoprenyl pyrophosphate interference for inhibition of cleavage of Tyr from Met-enkephalin with IC₅₀ of 10 μM. Target: Antibacterial Bacitracin is a mixture of related cyclic polypeptides produced by organisms of the licheniformis group of *Bacillus subtilis* var Tracy. Its unique name derives from the fact that the bacillus producing it was first isolated in 1943 from a knee scrape from a girl named Margaret Tracy. As a toxic and difficult-to-use antibiotic, bacitracin doesn't work well orally. However, it is very effective topically. Bacitracin is synthesised via the so-called nonribosomal peptide synthetases (NRPSs), which means that ribosomes are not involved in its synthesis [1, 2].

REFERENCES

- [1]. Murphy, T., et al., Effect of oligosaccharide elicitors on bacitracin A production and evidence of transcriptional level control. *J Biotechnol*, 2007. 131(4): p. 397-403.
- [2]. Karala, A.R. and L.W. Ruddock, Bacitracin is not a specific inhibitor of protein disulfide isomerase. *FEBS J*, 2010. 277(11): p. 2454-62.

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

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