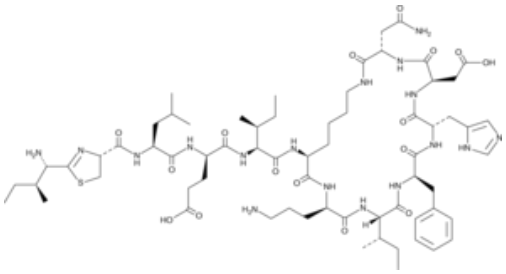
Product Data Sheet

Product Name: Bacitracin A (technical grade)
Cat. No.: GC49793

Chemical Properties

Cas. No.	22601-59-8		
SMILES	O=C(N[C@@H](C(N[C@@](C(N[C@@H](C(N[C@H](C(N[C@@H](C(N[C@H](C(NCCCC1)=O)CC(N)=O)=O)CC(O)=O)=O)CC2=CN=CN2)=O)CC3=CC=CC=C3)=O)([H])[C@@H](C)CC)=O)CCCN)[C@H]1NC([C@H]([C@@H](C)CC)NC([C@@H](CCC(O)=O)NC([C@H](CC(C)C)NC([C@@H]4CSC([C@@H](N)[C@H](CC)C)=N4)=O)=O)=O)=O		
Formula	C66H103N17O16S	M.Wt	1422.7
Solubility	DMSO: slightly soluble,Methanol: slightly, sonicated	Storage	-20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

Bacitracin A is a polypeptide antibiotic that has been found in *B. licheniformis* and the main active component of the bacitracin family of polypeptide antibiotics.[1] It is active against *M. lysodeikticus* when used at a concentration of 0.1 µM and forms a complex with divalent cations and the cell membrane component C55-isoprenyl pyrophosphate.[2] Bacitracin A is also active against the plant pathogenic bacteria *P. ananatis* with a median effective concentration (MEC) of 9.1 µg/ml. [3] It induces cell wall damage and cell leakage in *P. ananatis*.

Caution: Product has not been fully validated for medical applications. For research use only.
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1.Newton, G.G.F., and Abraham, E.P.Observations on the nature of bacitracin ABiochem. J.53(4)604-613(1953) 2.Storm, D.R., and Strominger, J.L.Complex formation between bacitracin peptides and isoprenyl pyrophosphates. The specificity of lipid-peptide interactionsJ. Biol. Chem.248(11)3940-3945(1973) 3.Jin, P., Tan, Z., Wang, H., et al.Antimicrobial effect of Bacillus licheniformis HN-5 bacitracin A on rice pathogen Pantoea ananatisBioControl66249-257(2020)

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