

Product Data Sheet

Product Name: Bacitracin Complex

Cat. No.: GC46905

Chemical Properties

Cas. No. N/A

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA



SMILES

O=C1N[C@@H](CC(N)=O)C(NCCCC[C@@H](C(N[C@@H](C(N[C@@H]([H])([C@@H](C)CC)C(N[C@H](CC2=CC=CC=C2)C(N[C@H](C(N[C@@H]1CC([O-])=O)=O)CC3=CN=CN3)=O)=O)=O)CCCN)=O)NC([C@@]([C@@H](C)CC)([H])NC([C@@H](CCC([O-])=O)NC([C@H](CC(C)C)NC([C@@H]4CSC([C@@H](N)[C@@H](C)CC)=N4)=O)=O)=O)=O.O=C5N[C@@H](CC(N)=O)C(NCCCC[C@@H](C(N[C@@H](C(N[C@@H]([H])([C@@H](C)CC)C(N[C@H](CC6=CC=CC=C6)C(N[C@H](C(N[C@@H]5CC([O-])=O)=O)CC7=CN=CN7)=O)=O)=O)CCCN)=O)NC([C@@]([C@@H](C)CC)([H])NC([C@@H](CCC([O-])=O)NC([C@H](CC(C)C)NC([C@@H]8CSC([C@@H](N)C(C)C)=N8)=O)=O)=O)=O.O=C9N[C@@H](CC(N)=O)C(NCCCC[C@@H](C(N[C@@H](C(N[C@@H]([H])(C(C)C)C(N[C@H](CC%10=CC=CC=C%10)C(N[C@H](C(N[C@@H]9CC([O-])=O)=O)CC%11=CN=CN%11)=O)=O)=O)CCCN)=O)NC([C@@]([C@@H](C)CC)([H])NC([C@@H](CCC([O-])=O)NC([C@H](CC(C)C)NC([C@@H]%12CSC([C@@H](N)[C@@H](C)CC)=N%12)=O)=O)=O)=O.O=C%13N[C@@H](CC(N)=O)C(NCCCC[C@@H](C(N[C@@H](C(N[C@@H]([H])([C@@H](C)CC)C(N[C@H](CC%14=CC=CC=C%14)C(N[C@H](C(N[C@@H]%13CC([O-])=O)=O)CC%15=CN=CN%15)=O)=O)=O)CCCN)=O)NC([C@@](C(C)C)([H])NC([C@@H](CCC([O-])=O)NC([C@H](CC(C)C)NC([C@@H]%16CSC([C@@H](N)[C@@H](C)CC)=N%16)=O)=O)=O)=O).O=C%17N[C@@H](CC(N)=O)C(NCCCC[C@@H](C(N[C@@H](C(N[C@@H]([H])(C(C)C)C(N[C@H](CC%18=CC=CC=C%18)C(N[C@H](C(N[C@@H]%17CC([O-])=O)=O)CC%19=CN=CN%19)=O)=O)=O)CCCN)=O)NC([C@@]([C@@H](C)CC)([H])NC([C@@H](CCC([O-])=O)NC([C@H](CC(C)C)NC([C@@H]%20CSC([C@@H](N)C(C)C)=N%20)=O)=O)=O)=O.O=C%21N[C@@H](CC(N)=O)C(NCCCC[C@@H](C(N[C@@H](C(N[C@@H]([H])([C@@H](C)CC)C(N[C@H](CC%22=CC=CC=C%22)C(N[C@H](C(N[C@@H]%21CC([O-])=O)=O)CC%23=CN=CN%23)=O)=O)=O)CCCN)=O)NC([C@@](C(C)C)([H])NC([C@@H](CCC([O-])=O)NC([C@H](CC(C)C)NC([C@@H]%24CSC([C@@H](N)C(C)C)=N%24)=O)=O)=O)=O.O=C%25N[C@@H](CC(N)=O)C(NCCCC[C@@H](C(N[C@@H](C(N[C@@H]([H])(C(C)C)C(N[C@H](CC%26=CC=CC=C%26)C(N[C@H](C(N[C@@H]%25CC([O-])=O)=O)CC%27=CN=CN%27)=O)=O)=O)CCCN)=O)NC([C@@](C(C)C)([H])NC([C@@H](CCC([O-])=O)NC([C@H](CC(C)C)NC([C@@H]%28CSC([C@@H](N)[C@@H](C)CC)=N%28)=O)=O)=O)=O).O=C%29N[C@@H](CC(N)=O)C(NCCCC[C@@H](C(N[C@@H](C(N[C@@H]([H])(C(C)C)C(N[C@H](CC%30=

Formula	C ₆₆ H ₁₀₁ N ₁₇ O ₁₆ S.Cu (for A)	M.Wt	1484.2
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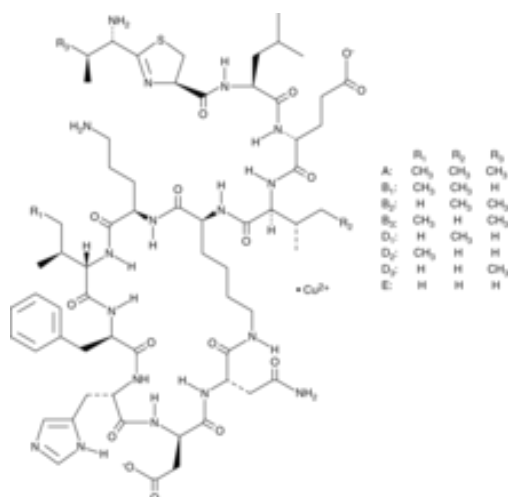
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Solubility	Storage	Store at -20°C
General tips	For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.	
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.	
Structure		



Background

Bacitracin complex is a bacitracin antibiotic complex composed of cyclic dipeptides that has been found in *Bacillus*.¹ It is metal-dependent and is complexed to a divalent metal cation, such as Cu²⁺, Ni²⁺, Co²⁺, Zn²⁺, or Mn²⁺, for its activity.^{1,2} Bacitracin complex is a mixture of bacitracin polypeptides in complex with copper.

1. Piacham, T., Isarankura-Na-Ayudhya, C., Nantasenamat, C., et al. Metalloantibiotic Mn(II)-bacitracin complex mimicking manganese superoxide dismutase. *Biochem. Biophys. Res. Commun.* 341(4):925-930(2006)
2. Rodríguez-Urbe, N.A., Pérez-González, R., Domínguez-Mendoza, B.E., et al. Metallobacitracins: Affinity and structural study in aqueous solution. *Inorg. Chem. Commun.* 10461-

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