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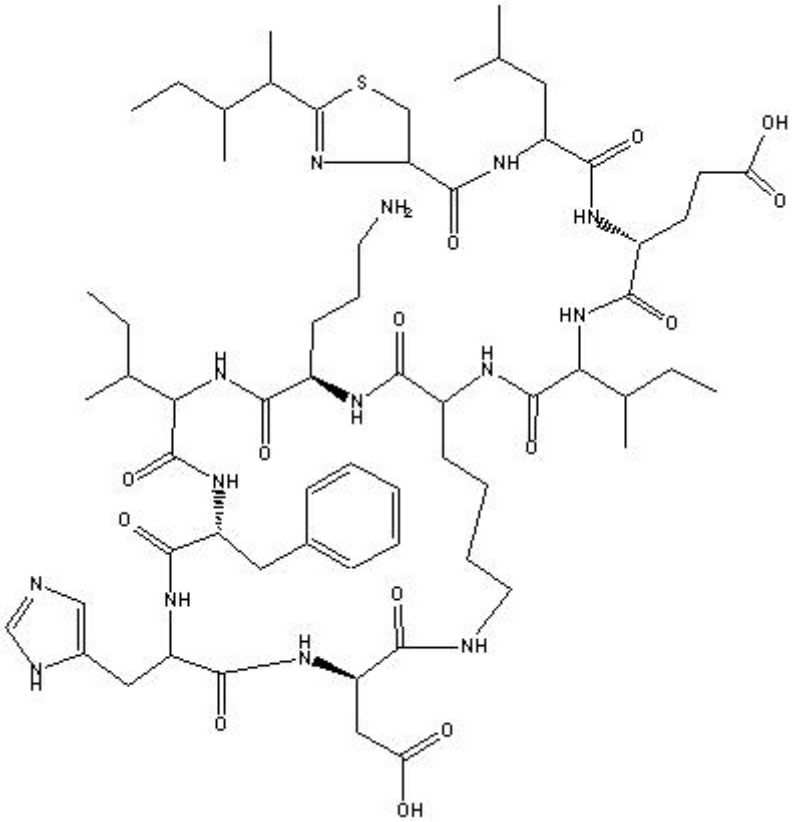
TECHNICAL INFORMATION

Catalog Number: 100165, 190301
Bacitracin, U.S.P.

Structure (free acid)**:**



	Free Acid	*Zinc Salt*
Molecular Formula	$C_{66}H_{103}N_{17}O_{16}S$	$C_{66}H_{101}N_{17}O_{16}SZn$
Molecular Weight	1422.71	1486.1
CAS #	1405-87-4	1405-89-6

Physical Description: Off-white powder
Description: An antimicrobial agent. An inhibitor of peptidoglycan synthesis. It is a polypeptide produced by the growth of an organism of the *licheniformis* group of *Bacillus subtilis* (Fam. Bacillaceae).
Bacitracin is not digested by proteolytic enzymes, nor is it inactivated by the organisms which produce penicillinase.
It is active against gram-positive streptococci and staphylococci, as well as gonococci, pneumococci, diphtheria bacilli, and the spirochetes of syphilis. In its activity, bacitracin differs from penicillin principally in that it is effective against certain bacterial strains which are unaffected by, or have developed resistance to, penicillin.
Availability:

Catalog Number	Description	Size
100165	Bacitracin, USP grade	50 KU 250 KU 1 MU
190301	Bacitracin, Zinc Salt, USP grade	50 KU 250 KU 1 MU

Solubility: Soluble in alcohol, water (137 mg/ml - dark yellow solution), ethanol, or methanol; practically insoluble in ether,

chloroform and acetone. Aqueous solutions of bacitracin are stable for at least one week when adjusted to a slightly acid pH and kept refrigerated. At room temperature, however, these solutions deteriorate rapidly. Bacitracin in solution is inactivated by hydrogen peroxide, British Anti-Lewisite and sodium thiosulfate. It is precipitated by salts of heavy metals, by tannic, benzoic and salicylic acids, and by high concentrations of sodium chloride.[3] Metals low in the E.M.F. series inactivate bacitracin, whereas those high in the series, such as zinc, do not.[5]

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