

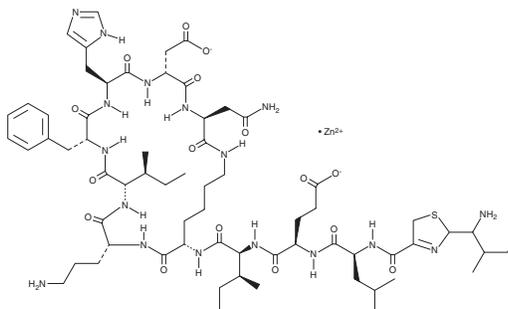
PRODUCT INFORMATION



Bacitracin (zinc)

Item No. 21212

CAS Registry No.: 1405-89-6
Synonym: Bacifarmin
MF: $C_{66}H_{101}N_{17}O_{16}S \cdot Zn$
FW: 1,486.1
Purity: $\geq 70\%$ (Bacitracin A, B1, B3 mixture)
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bacitracin (zinc) is supplied as a crystalline solid. A stock solution may be made by dissolving the bacitracin (zinc) in the solvent of choice, which should be purged with an inert gas. Bacitracin (zinc) is slightly soluble in DMSO.

Description

Bacitracin is a cyclic polypeptide antibiotic that was first isolated from *B. licheniformis*.¹ Formulations containing bacitracin, often combined with other antibiotics, are used for topical treatment of infections in humans and animals.^{2,3} The activity of bacitracin can be enhanced by zinc.⁴ Bacitracin sequesters C_{55} -isopropyl pyrophosphate (IPP), a lipid carrier in peptidoglycan synthesis, and in this way disrupts cell wall biosynthesis.^{2,3}

References

1. Katz, E. and Demain, A.L. The peptide antibiotics of *Bacillus*: Chemistry, biogenesis, and possible functions. *Bacteriol. Rev.* **41(2)**, 449-474 (1977).
2. Butaye, P., Devriese, L.A., and Haesebrouck, F. Antimicrobial growth promoters used in animal feed: Effects of less well known antibiotics on gram-positive bacteria. *Clin. Microbiol. Rev.* **16(2)**, 175-188 (2003).
3. Chancey, S.T., Zähler, H., and Stephens, D.S. Acquired inducible antimicrobial resistance in Gram-positive bacteria. *Future Microbiol.* **7(8)**, 959-978 (2012).
4. Astiazarán-García, H., G. Iñigo-Figueroa, G., Quihui-Cota, L., et al. Crosstalk between zinc status and *Giardia* infection: A new approach. *Nutrients* **7(6)**, 4438-4452 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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