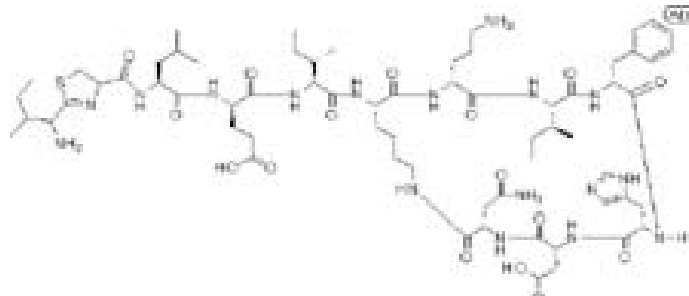


Product Information Sheet

B132

Bacitracin Zinc

Synonym: N/A
CAS: 1405-89-6
Formula: C₆₆H₁₀₁N₁₇O₁₆SZn
Molecular Wt: 1486.07



Properties

Form: Powder
Appearance: Cream to Tan Powder
Application: Plant Tissue Culture Antibiotic
Solubility: Soluble in Water: 5.1 mg/mL (28° C), methanol at 6.55 mg/mL, ethanol at 2.0 mg/mL, and isopropanol at 0.16 mg/mL per the Merck Index. *PhytoTechnology Labs* tests solubility at 1.0 mg/mL in DMSO.
Storage Temp: 2 to 6 °C
Storage Temp of Stock Solution: The preparation of stock solutions is not recommended. Bacitracin has been observed to lose potency in solution (Merck Index). For optimal potency solutions should be prepared fresh.
Other Notes: Minimum Potency: 65 IU/mg (see Certificate of Analysis for lot specific activity)

Application Notes

Bacitracin interferes with cell wall biosynthesis in Gram-positive bacteria by inhibiting the dephosphorylation of lipid pyrophosphate. It is also active in some Gram-negative organisms although most are resistant.²

Bacitracin Zn is a mixture of bacitracin A, B1, B2, B3, and Zn. It has been reported that the bacteriostatic activity of bacitracin increases by twofold when Zn was added at 1×10^{-5} M and 10-fold at 1×10^{-4} M. Additionally, the presence of Zn ion helps enhance thermal and storage stability of the bacitracin.³

It has been reported that bacitracin's minimum inhibitory concentration for *Clostridium perfringens* is 0.93 µg/mL.⁴

Please Note: It is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

References

1. Merck **13**, 938
2. *Martindale: The Complete Drug Reference*, 35th ed., Paul S. Blake, Ed. (Royal Pharmaceutical Society, 2007), p. 187.
3. Smith, J.L., and E.D. Weinberg. 1962. Mechanisms of Antibacterial Action of Bacitracin. *J. Gen. Microbiol.* 28:559-569.
4. Richez P., Richard A., Cornez B. and Vancaeynest D. "Susceptibility, resistance and antibiotic profile of bacitracin against *clostridium perfringens* strains isolated during clinical outbreaks of epizootic rabbit enteropathy." *9th World Rabbit Congress - June 10-13, 2008 – Verona, Italy.*

India Contact

Life Technologies (India) Pvt Ltd.

306, Agarwal City Mall, Road 44, Pitampura, Delhi - 110034 (India)

B132-info

Tel: +91-11-4220-8000; 4220-8111; 4220-8222 Fax: +91-11-4220-8444, Mobile: +91-98105-21400

Email - customerservice@lifetechindia.com | customerservice@atzlabs.com

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