

PRODUCT DATA SHEET

Code No.: BIA-B1784

Pack sizes: 5 mg, 25 mg

Synonyms : Bacitracin A1, Bacitracin A2a, NSC 4573, Baciliquin

Specifications

Bacitracin A

CAS # : **22601-59-8**Molecular Formula : **C**₆₆**H**₁₀₃**N**₁₇**O**₁₆**S**

Molecular Weight : 1422.7

Source : Bacillus subtilis

Appearance : White solid

Purity : >95% by HPLC

Long Term Storage : -20°C

Solubility : Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Bacitracin A is the major analogue of the bacitracin complex of cyclic peptides, active against Gram-positive bacteria. Although first reported in 1945, the structure of the bacitracins was not fully elucidated until 1995. Bacitracins form a complex with C55-isoprenyl pyrophosphate and a metal ion to inhibit dephosphorylation and the transport of polysaccharides, peptidoglycans and lipopolysaccharides to the growing cell wall. Bacitracin is used clinically as a topical treatment for skin infections.

References

- 1. Bacitracin: A new antibiotic produced by a member of the B. subtilis group. Johnson B.A. et al., Science 1945, 102, 376.
- Mechanism of action of bacitracin: Complexation with metal ion and C55-isoprenyl pyrophosphate (molecular model/chelating agents/ternary complex/cell wall synthesis/peptidoglycan). Stone K.J. & Strominger J.L., Proc. Nat. Acad. Sci. 1971, 68, 3223.
- 3. Total structures and antimicrobial activity of bacitracin minor components. Ikai Y. et al., J. Antibiot. 1995, 48, 233.

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