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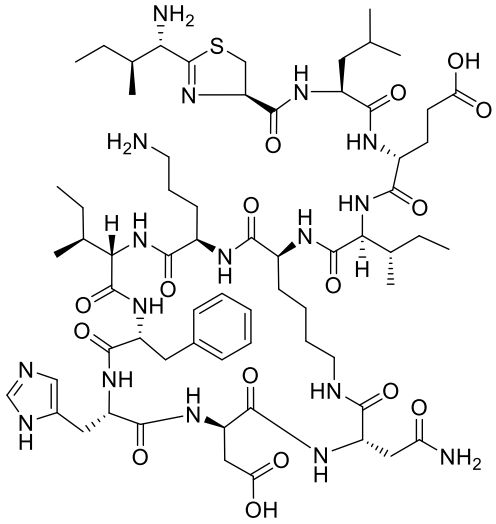
PRODUCT DATA SHEET

Bacitracin A

Code No.: **BIA-B1784**

Pack sizes: **1 mg, 5 mg**



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

Specifications

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 methanol, 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.
2. 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.

For in vitro laboratory use only. Not for human or animal use.

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