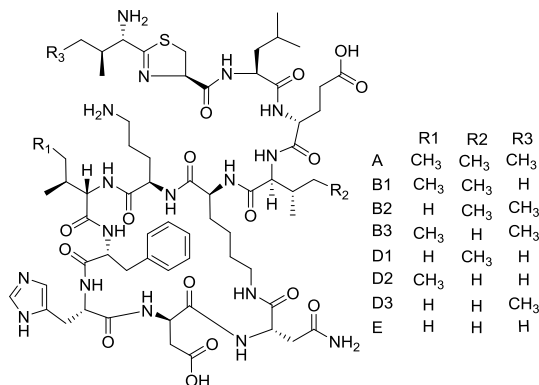


Bacitracin complex

Code No.: **BIA-B1785**

Pack sizes: **25 mg, 100 mg**



Synonyms : Bacilliquin

Specifications

CAS #	: 85800-09-5
Molecular Formula	: C₆₆H₁₀₁CuN₁₇O₁₆S
Molecular Weight	: 1422.7
Source	: <i>Bacillus subtilis</i>
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Bacitracin is a complex of cyclic peptides isolated from *Bacillus licheniformis*, first published in 1945 as active against Gram-positive bacteria, including β -haemolytic streptococci, gonococci and meningococci. The structure of the bacitracins was finally elucidated in 1995. Bacitracin forms a complex with C55-isoprenyl pyrophosphate and a metal ion to inhibit dephosphorylation and 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.