

PRODUCT DATA SHEET

Tunicamycin Complex

Code: **BIA-T1095**

Pack sizes: 5 mg, 25 mg

Synonyms : Specifications

CAS # : 11089-65-9

Molecular Formula : C₃₈H₆₂N₄O₁₆ (based on the dominant analogues tunicamycin IV & V)

Molecular Weight : 830.4 (based on the dominant analogues tunicamycin IV & V)

Source : Streptomyces sp. MST-AS4816

Appearance : White solid

Purity : > 99% by HPLC (total complex)

Long Term Storage : -20°C

Solubility : Soluble in ethanol, methanol, DMF or DMSO

Application Notes

The tunicamycins are a family of lipophilic nucleosides with differing fatty acid conjugation to an amino glycoside group. The complex contains analogues tunicamycins I to X and the composition is typical of other products claiming the less precise description as tunicamycins A to D. The tunicamycins act by blocking the formation of N-glycoside linkages to proteins by inhibition of N-acetylglucosamine-1-phosphate to dolichol monophosphate. Tunicamycin blocks the synthesis of all N-linked glycoproteins (N-glycans) and causes cell cycle arrest in G1 phase. Tunicamycins show broad biological profiles against prokaryotes, eukaryotes and viruses.

References

1. Relationship of the structure and biological activity of the natural homologues of tunicamycin. Duskin D. & Mahoney W.C. *J Biol Chem.* **1982**, 257, 3105.