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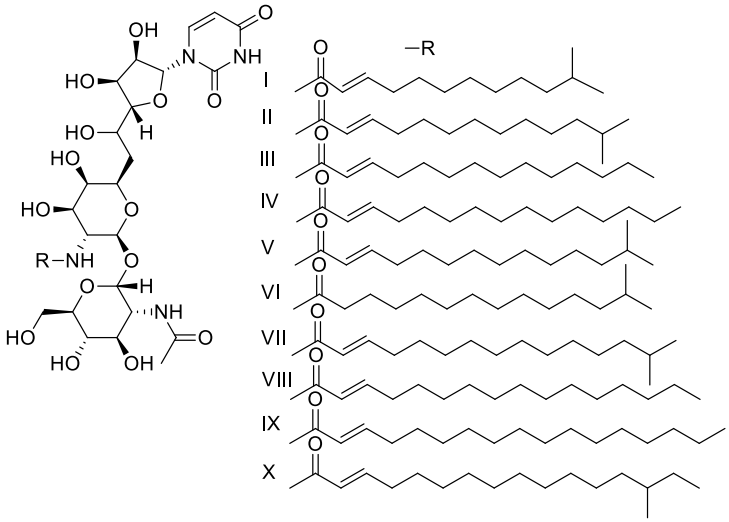
PRODUCT DATA SHEET

Tunicamycin complex

Code No.: **BIA-T1095**

Pack sizes: **5 mg, 25 mg**



Synonyms :

Specifications

CAS #	:	**11089-65-9**
Molecular Formula	:	**$C_{38}H_{62}N_4O_{16}$ (for IV)**
Molecular Weight	:	**830.4 (for IV)**
Source	:	***Streptomyces* sp.**
Appearance	:	**White to off-white solid**
Purity	:	**>95% by HPLC (total complex)**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.**

Application Notes

The tunicamycins are a family of lipophilic nucleosides with fatty acids conjugated to an aminoglycoside group. The complex comprises the analogues, tunicamycins I to X. This composition is typical of other products less precisely described as tunicamycins A to D. The tunicamycins act by blocking the formation of N-glycoside linkages to proteins via inhibition of formation of dolichol monophosphate from N-acetylglucosamine-1-phosphate. Tunicamycin blocks the synthesis of all N-linked glycoproteins (N-glycans) and causes cell cycle arrest in G1 phase. Tunicamycins are broadly active 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.

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