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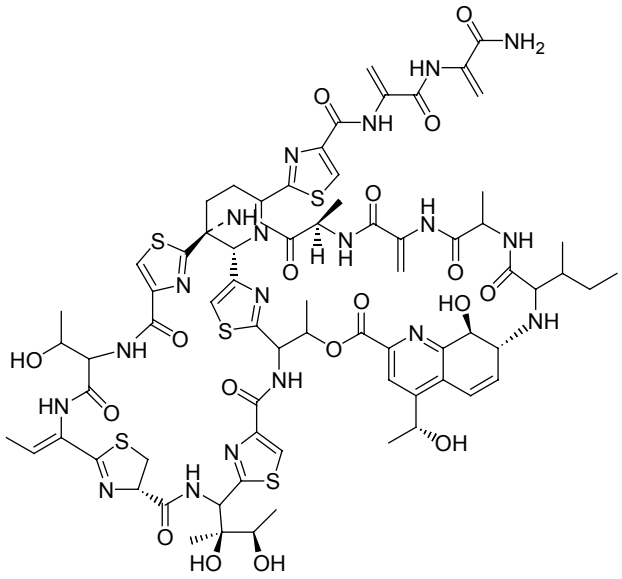
PRODUCT DATA SHEET

Thiostrepton

Code: **BIA-T1158**

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



Synonyms : **Bryamycin, Thiactin, Alaninamide, Antibiotic X 146, Antibiotic A 8506, Antibiotic 6761-31**

Specifications

CAS #	:	**1393-48-2**
Molecular Formula	:	**$C_{72}H_{85}N_{19}O_{18}S_5$**
Molecular Weight	:	**1664.9**
Source	:	***Streptomyces* sp. MST-AS4632**
Appearance	:	**White solid**
Purity	:	**> 99% by HPLC**
Long Term Storage	:	**4°C**
Solubility	:	**DMSO and DMF, partially in methanol and ethanol while poorly soluble in water**

Application Notes

Thiostrepton is a macrocyclic antibiotic incorporating thiazoles and other atypical amino acids. Patented in 1961, thiostrepton has been used as an antibiotic and acts by binding to ribosomes to prevent the binding of the EF-G elongation factor and GTP to the 50S riobsomal subunit. Thiostrepton is an inducer of *tip*A, a gene that controls the bacterial transcription regulators, TipAL and TipAS, members of the MerR proteins that are central regulators in multidrug resistance. Closely related to siomycin, a recently discovered inhibitor of oncogenic transcription factor, FoxM1.

References

1. Thiostrepton, its salts and production Donovick R. **1961** US Patent 2982689
2. Broad spectrum thiopeptide recognition specificity of the *Streptomyces lividans* TipAL protein and its role in regulating gene expression. Chiu M.L. et al. *J. Biol. Chem.* **1999**, 274, 20578.
3. Identification of a chemical inhibitor of the oncogenic transcription factor Forkhead Box M1. Radhakrishnan et. al. *Cancer Res*. **2006**, 19, 9731.

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