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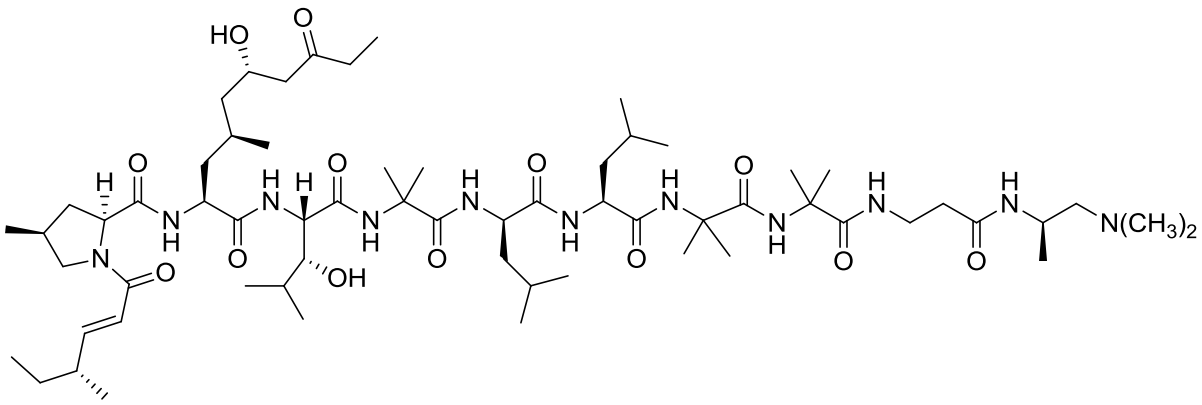
PRODUCT DATA SHEET

Leucinostatin A

Code No.: **BIA-L1451**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms : Tryanocidin, CC 1014, M 13959, ML 1014, P 168, SF 1907VIII, U 53496

Specifications

CAS #	:	**76600-38-9**
Molecular Formula	:	**$C_{62}H_{111}N_{11}O_{13}$**
Molecular Weight	:	**1218.6**
Source	:	***Paecilomyces* sp.**
Appearance	:	**Light tan to tan solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.**

Application Notes

Leucinostatin A is the major component of an atypical nonapeptide complex produced by Paecilomyces lilacinus, first reported in 1973. Leucinostatins display broad bioactivity against Gram positive bacteria, fungi, plants and tumor cell lines. Leucinostatin A inhibits respiration by uncoupling oxidative phosphorylation and is potentiated by inhibitors such as venturicidin and oligomycin. More recently, interest in leucinostatin has focused on understanding its activity as an insulin-like growth factor I regulator, an ionophore, inhibitor of cell surface expression of viral glycoproteins and its anti-trypanosomal activity.

References

1. A new antibiotic, leucinostatin, derived from Penicillium lilacinum. Arai T. et al. J. Antibiot. 1973, 26, 157.
2. Isolation of leucinostatin A and one of its constituents, the new amino acid, 4-methyl-6-(2-oxobutyl)-2-piperidinecarboxylic acid, from Paecilomyces lilacinus A-267. Mori Y. et al. J. Antibiot. 1982, 35, 543.
3. Dual inhibitory effects of the peptide antibiotics leucinostatins on oxidative phosphorylation in mitochondria. Shima A. et al. Cell Struct. Funct. 1990, 15, 53.
4. Leucinostatin A inhibits prostate cancer growth through reduction of insulin-like growth factor-I expression in prostate stromal cells. Kawada M. et al. Int. J. Cancer 2010, 126, 810.

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