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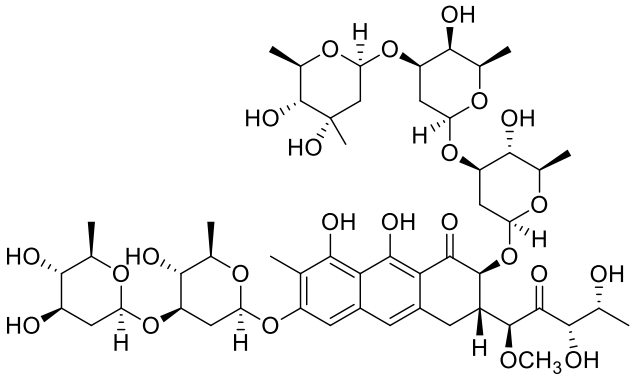
PRODUCT DATA SHEET

Mithramycin A

Code No.: **BIA-M1268**

Pack sizes: **1 mg, 5 mg**



Synonyms : Aureolic acid, Mithracin, Plicamycin, Mitramycin, A 2371, LA 7017, NSC 23559, PA 144

Specifications

CAS #	:	**18378-89-7**
Molecular Formula	:	**$C_{52}H_{76}O_{24}$**
Molecular Weight	:	**1085.2**
Source	:	***Streptomyces argillaceus***
Appearance	:	**Yellow powder**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.**

Application Notes

Mithramycin A was the first of the aureolic acid class of antitumor antibiotics, isolated from Streptomyces. Mithramycin inhibits transcription and protein synthesis by non-covalent binding with G-C-rich duplex DNA in the presence of magnesium and zinc ions. Mithramycin also induces differentiation of leukemic cells accompanied by an early decrease in c-myc expression, and selectively inhibits collagen-1 gene expression in human fibroblasts.

References

1. Aureolic acid, a new antibiotic. I. Microbiological studies. Grundy W. E. et al., Antibiot. Chemother. 1953, 2, 1215.
2. Aureolic acid group of anti-tumor antibiotics. Berlin Y. U. et al., Nature 1968, 218, 193.
3. Mithramycin selectively inhibits the transcriptional activity of a transfected human c-myc gene Ray R. et al., Am. J. Med. Sci. 1990, 300, 203.
4. Interaction of mithramycin with DNA. Evidence that mithramycin binds to DNA as a dimer in a right-handed screw conformation. Demicheli C. et al., Eur. J. Biochem. 1991, 198, 333.
5. Mithramycin selectively inhibits collagen-alpha 1(I) gene expression in human fibroblast. Nehls M. C. et al., ; J. Clin. Invest. 1993, 92, 2916

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