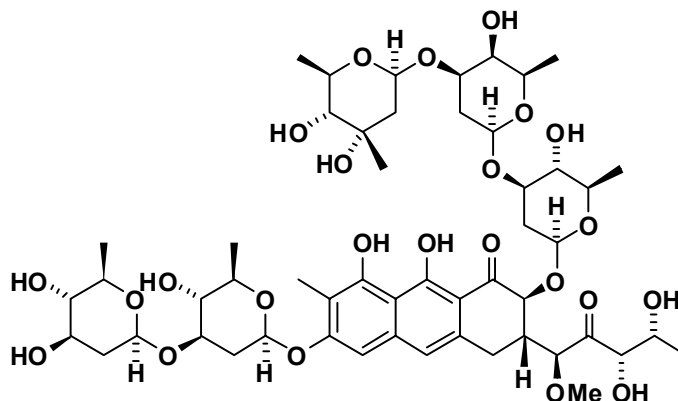


## Mithramycin

Code: **BIA-M1268**

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



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

## Specifications

CAS # : **18378-89-7**  
Molecular Formula : **C<sub>52</sub>H<sub>76</sub>O<sub>24</sub>**  
Molecular Weight : **1085.2**  
Source : ***Streptomyces argillaceus***  
Appearance : **Yellow powder**  
Purity : **> 99% by HPLC**  
Storage : **-20°C**  
Solubility : **Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.**

## Application Notes

Mithramycin 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 has also been shown to induce differentiation of leukemic cells accompanied by an early decrease in c-myc expression and selectively inhibit collagen-1 gene expression in human fibroblasts.

## References

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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.