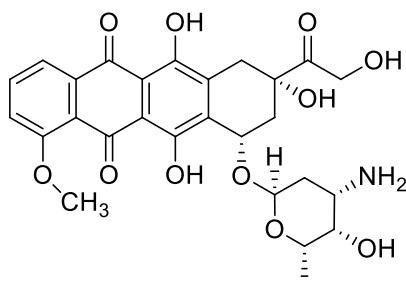


Doxorubicin

Code No.: **BIA-D1229**

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



Synonyms : Adriamycin, 14-Hydroxydaunomycin, FI 106, K 1039, KW 125, NSC 123127

Specifications

CAS #	: 23214-92-8
Molecular Formula	: C₂₇H₂₉NO₁₁
Molecular Weight	: 543.5
Source	: <i>Streptomyces peucetius</i>
Appearance	: Orange red solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.

Application Notes

Doxorubicin (adriamycin) is the most extensively studied of a family of highly fluorescent anthracycline antibiotics produced by several *Streptomyces* species, first reported in 1967 and later approved for human therapeutic use as an antitumor agent for the treatment of a wide range of cancers. Doxorubicin also exhibits anti-HIV and antibacterial activity. The mode of action of doxorubicin is thought to be due to intercalation of DNA and inhibition of nucleic acid synthesis.

References

1. Adriamycin (14-hydroxydaunomycin), a novel antitumor antibiotic. Arcamone F. et al., Tet. Letters 1969, 13, 1007.
2. Interference by doxorubicin with DNA unwinding in MCF-7 breast tumor cells. Fornari F.L. et al., Mol. Pharmacology 1994, 45, 649.
3. Effect of Adriamycin on DNA, RNA, and protein synthesis in cell-free systems and intact cells. Momarier R. et al., Cancer Research 1976, 36, 2891.