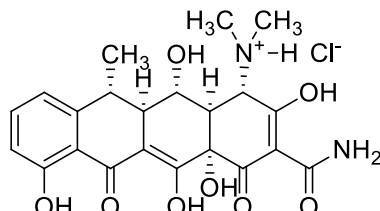


Doxycycline hydrochloride

Code No.: **BIA-D1470**

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



Synonyms : 6- Deoxy-5-hydroxytetracycline hydrochloride, 6-Deoxyoxytetracycline hydrochloride, Doxytetracycline hydrochloride

Specifications

CAS #	: 10592-13-9
Molecular Formula	: C₂₂H₂₅ClN₂O₈
Molecular Weight	: 480.9
Source	: Semi-synthetic
Appearance	: Yellow to orange solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO. Good water solubility.

Application Notes

Doxycycline hydrochloride is a salt prepared from doxycycline taking advantage of the basic dimethylamino group which protonates and readily forms a salt in hydrochloric acid solutions. The hydrochloride is the preferred formulation for pharmaceutical applications. Like all tetracyclines, doxycycline shows broad spectrum antibacterial and antiprotozoan activity and acts by binding to the 30S and 50S ribosomal subunits, blocking protein synthesis.

References

1. Hydrogenolysis studies in the tetracycline series - 6-Deoxytetracyclines. Stephens C.R. et al., J. Am. Chem. Soc. 1958, 80, 5324.
2. Comparison of in vitro activity and clinical pharmacology of doxycycline with other tetracyclines. Rosenblatt J.E. et al., Antimicrob. Agents Chemother. 1966, 6, 134.