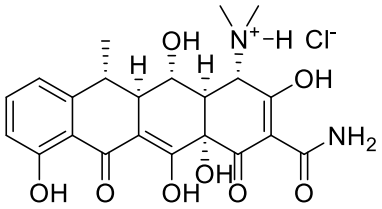
bioaustralis
fine chemicals

PRODUCT DATA SHEET

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	:	**$C_{22}H_{25}ClN_2O_8$**
Molecular Weight	:	**480.9**
Source	:	**Semi-synthetic**
Appearance	:	**Yellow to orange solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in methanol, 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.

For in vitro laboratory use only. Not for human or animal use.

Updated: 14 November 2025

© Copyright BioAustralis 2025

Building C, 28-54 Percival Road, Smithfield, NSW 2164, AUSTRALIA

Tel: 61 2 9757 4515 Fax: 61 2 9757 2586 Web: www.bioaustralis.com Email: info@bioaustralis.com