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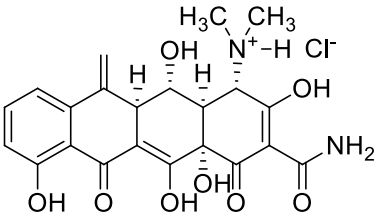
PRODUCT DATA SHEET

Methacycline hydrochloride

Code No.: **BIA-M1468**

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



Synonyms : 6-Methyleneoxytetracycline hydrochloride, Metacycline hydrochloride, Londomycin

Specifications

CAS #	:	**3963-95-9**
Molecular Formula	:	**$C_{22}H_{23}ClN_2O_8$**
Molecular Weight	:	**478.9**
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

Methacycline hydrochloride is a salt prepared from methacycline 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, methacycline hydrochloride shows broad spectrum antibacterial and antiprotozoan activity and acts by binding to the 30S and 50S ribosomal subunits, blocking protein synthesis.

References

1. 6-Methylenetetracyclines. I A new class of tetracycline antibiotics. Blackwood R.K. et al., J. Am. Chem. Soc. 1961, 83, 2773.
2. 6-Methylenetetracyclines. III. Preparation and Properties. Blackwood R.K. et al., J. Am. Chem. Soc. 1963, 85, 3943.
3. A comparison of the in vitro and in vivo activity of methacycline and other tetracycline compounds. Chang T.W. & Weinstein L. Antibiot. Chemother. 1962, 12, 676.
4. Evaluation of methacycline, a new analogue of oxytetracycline. Limson B.M. & Guevara R. Curr. Ther. Res. Clin. Exp. 1963, 5, 249.

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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