

# Produktinformation



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# PRODUCT INFORMATION



## Oxytetracycline

Item No. 18076

CAS Registry No.: 79-57-2

Formal Name: (4S,4aR,5S,5aR,6S,12aS)-4-(dimethylamino)-

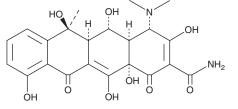
1,4,4a,5,5a,6,11,12a-octahydro-

3,5,6,10,12,12a-hexahydroxy-6-methyl-1,11-dioxo-2-naphthacenecarboxamide

Synonyms: NSC 9169, Terramycin

MF:  $C_{22}H_{24}N_2O_9$ FW: 460.4 **Purity:** ≥95%

Stability: ≥2 years at -20°C Supplied as: A crystalline solid UV/Vis.:  $\lambda_{max}$ : 220, 265, 360 nm



#### **Laboratory Procedures**

For long term storage, we suggest that oxytetracycline be stored as supplied at -20°C. It should be stable for at least two years.

Oxytetracycline is supplied as a crystalline solid. A stock solution may be made by dissolving the oxytetracycline in the solvent of choice. Oxytetracycline is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of oxytetracycline in these solvents is approximately 3 and 0.3 mg/ml, respectively.

Oxytetracycline is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, oxytetracycline should first be dissolved in DMSO and then diluted with the agueous buffer of choice. Oxytetracycline has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Oxytetracycline is a broad-spectrum tetracycline antibiotic that inhibits protein synthesis in both Gram-positive and Gram-negative bacteria. The features of its biosynthesis often serve as a representative example for understanding the synthesis of other type II polyketides. 1 Oxytetracycline is also used to examine the acquisition of oxytetracycline-resistance genes, which are associated with the development of antibiotic resistance.2

#### References

- 1. Pickens, L.B. and Tang, Y. Oxytetracycline biosynthesis. J. Biol. Chem. 285(36), 27509-27515 (2010).
- 2. Roberts, M.C. Update on acquired tetracycline resistance genes. FEMS Microbiol. Lett. 245, 195-203 (2005).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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