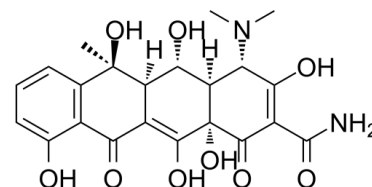


Data Sheet

Product Name:	Oxytetracycline
Cat. No.:	CS-2265
CAS No.:	79-57-2
Molecular Formula:	C ₂₂ H ₂₄ N ₂ O ₉
Molecular Weight:	460.43
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	DMSO : ≥ 50 mg/mL (108.59 mM); H ₂ O : < 0.1 mg/mL (insoluble)



BIOLOGICAL ACTIVITY:

Oxytetracycline is a tetracycline analog isolated from the actinomycete streptomyces rimosus and used in a wide variety of clinical conditions. Target: Antibacterial Oxytetracycline was the second of the broad-spectrum tetracycline group of antibiotics to be discovered. Oxytetracycline works by interfering with the ability of bacteria to produce essential proteins. Without these proteins, the bacteria cannot grow, multiply and increase in numbers. Oxytetracycline therefore stops the spread of the infection and the remaining bacteria are killed by the immune system or eventually die. Oxytetracycline is a broad-spectrum antibiotic, active against a wide variety of bacteria. However, some strains of bacteria have developed resistance to this antibiotic, which has reduced its effectiveness for treating some types of infections [1, 2].

References:

- [1]. Elia, A.C., et al., Transferability of oxytetracycline (OTC) from feed to carp muscle and evaluation of the antibiotic effects on antioxidant systems in liver and kidney. Fish Physiol Biochem, 2014.
- [2]. An, W., et al., Adsorptive removal of trace oxytetracycline from water by acid-modified zeolite: influencing factors. Water Sci Technol, 2013. 68(11): p. 2473-8.

CAIndexNames:

2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,6,10,12,12a-hexahydroxy-6-methyl-1,11-dioxo-, (4S,4aR,5S,5aR,6S,12aS)-

SMILES:

O=C(C(C1=O)=C(O)[C@@H](N(C)C)[C@]2([H])[C@@H](O)[C@]3([H])[C@](C)(O)C4=C(C(C3=C(O)[C@@]21O)=O)C(O)=CC=C4)N

Caution: Product has not been fully validated for medical applications. For research use only.

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