

Product Data Sheet

Cat # ABT-310-100

Aureomycin (Pharma Grade)

Size: 100g

Cat # ABT-310-010

Aureomycin (Pharma Grade)

Size: 10g

General Information

Chlortetracycline (trade name Aureomycin, Lederle) is a tetracycline antibiotic, and was the first tetracycline to be discovered. It was discovered in 1945 by Dr Benjamin Duggar in a soil sample from Sanborn Field at the University of Missouri, yielding an actinomycete, *Streptomyces aureofaciens* (hence the name Aureomycin). In veterinary medicine, it is commonly used to treat conjunctivitis in cats.

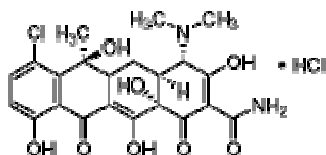
Aureomycin is a cell-permeable fluorescent probe for Ca²⁺ for measuring calcium flux in endoplasmic reticulum and other intracellular stores in situ. It is also an antibiotic produced by some strains of *Streptomyces aureofaciens*.

Mode of Action: Inhibits protein synthesis (elongation) by preventing binding of aminoacyl-tRNA to the 30S subunit.

Antimicrobial spectrum: Gram-positive. Less active against Gram-negative bacteria than tetracycline.

Mode of Resistance: Loss of cell wall permeability.

It is recommended for fluorescent studies of calcium signaling in cells or tissues.



Molecular Formula:

C₂₂H₂₃ClN₂O₈ · HCl

Molecular Weight:

515.34 g/mol

Tests	Specification	Results
Biological source	<i>Streptomyces aureofaciens</i>	<i>Streptomyces aureofaciens</i>
Appearance	Yellowish crystalline powder	Conform
Assay	≥900% (AT)	≥99.30% (AT)
Total impurities	≤3% water	conform
Loss on drying	<1%	0.8%
Specific rotation	-235°—250°	Conform
Heavy metal	<10ppm	Conform
Solubility	The product is tested in 1 M NaOH, giving a clear yellow to brown solution at 50 mg/mL. Its solubility at room temperature in water is reportedly about 8.6 mg/mL, in methanol, 17.4 mg/mL and in ethanol, 1.7 mg/mL. It is soluble in solutions of alkali hydroxides and carbonates. It is practically insoluble in acetone and other organic solvents. For use as a reference, the U.S. Pharmacopeia notes that a stock solution prepared in 0.01 N HCl should be stored refrigerated and used within 4 days	50 mg/mL in 1 M NaOH Yellow to yellow-brown
Storage temp	2-8°C	2-8°C

ABT-310-010

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