# PRODUCT INFORMATION

## Aurodox

*Item No. 27584*

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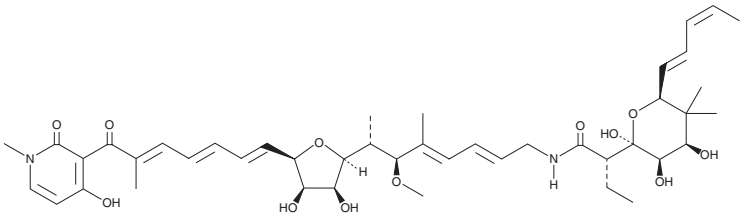
| **CAS Registry No.:** | 12704-90-4 |
| **Formal Name:** | (αS,2R,3R,4R,6S)-N-[(2E,4E,6S,7R)-7-[(2S,3S,4R,5R)-5-[(1E,3E,5E)-7-(1,2-dihydro-4-hydroxy-1-methyl-2-oxo-3-pyridinyl)-6-methyl-7-oxo-1,3,5-heptatrien-1-yl]tetrahydro-3,4-dihydroxy-2-furanyl]-6-methoxy-5-methyl-2,4-octadien-1-yl]-α-ethyltetrahydro-2,3,4-trihydroxy-5,5-dimethyl-6-(1E,3Z)-1,3-pentadien-1-yl-2H-pyran-2-acetamide |
| **Synonyms:** | Antibiotic X 5108, Goldinodox, Goldinomycin, 1-methyl-Mocimycin |
| **MF:** | $C_{44}H_{62}N_2O_{12}$ |
| **FW:** | 811.0 |
| **Purity:** | ≥85% (mixture of tautomers) |
| **Supplied as:** | A solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |
| **Item Origin:** | Bacterium/*Streptomyces* sp. |



*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Aurodox is supplied as a solid. A stock solution may be made by dissolving the aurodox in the solvent of choice, which should be purged with an inert gas. Aurodox is soluble in organic solvents such as ethanol at a concentration of approximately 1 mg/ml. Aurodox is also soluble in methanol and DMSO.

### Description

Aurodox is a polyketide antibiotic originally isolated from *S. goldiniensis*.[1] It is active against Gram-positive bacteria, including *B. megaterium*, *B. anthracis*, and *M. hominis* (MICs = 0.06, 0.6, and 3-10 µg/ml, respectively), as well as *Pneumococcus* and *Streptomyces* species (MICs = 3-12 and 3-30 µg/ml, respectively). It is effective against *S. pyogenes* infection in mice with a 50% curative dose ($CD_{50}$) value of 71 mg/kg. Aurodox inhibits bacterial protein synthesis by binding to bacterial elongation factor Tu (EF-Tu) and inhibiting its release from the ribosome.[2,3]

### References


1. Berger, J., Lehr, H.A., Teitel, S., *et al.* A new antibiotic X-5108 OF Streptomyces origin. I. Production, isolation and properties. *J. Antibiot. (Tokyo)* **26(1)**, 15-22 (1973).
2. Wolf, H., Chinali, G., and Parmeggiani, A. Mechanism of the inhibition of protein synthesis by kirromycin. Role of elongation factor Tu and ribosomes. *Eur. J. Biochem.* **75(1)**, 67-75 (1977).
3. Bhuta, P. and Chládek, S. Stimulation of *Escherichia coli* elongation factor Tu-dependent GTP hydrolysis by aminoacyl oligonucleotides in the presence of aurodox. *FEBS Lett.* **122(1)**, 113-116 (1980).





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