

PRODUCT INFORMATION



Oleandomycin

Item No. 16552

CAS Registry No.: 3922-90-5
Formal Name: (3R,5R,6S,7R,8R,11R,12S,13R,14S,15S)-14-(((2S,3R,4S,6R)-4-(dimethylamino)-3-hydroxy-6-methyltetrahydro-2H-pyran-2-yl)oxy)-6-hydroxy-12-(((2R,4S,5S,6S)-5-hydroxy-4-methoxy-6-methyltetrahydro-2H-pyran-2-yl)oxy)-5,7,8,11,13,15-hexamethyl-1,9-dioxaspiro[2.13]hexadecane-4,10-dione

MF: C₃₅H₆₁NO₁₂

FW: 687.9

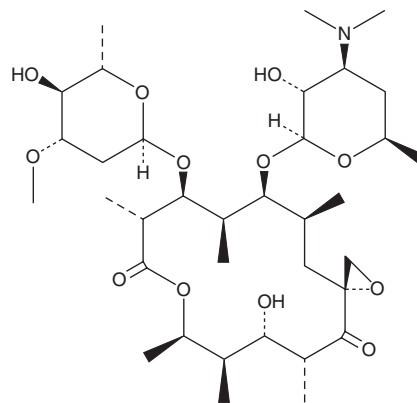
Purity: ≥95%

Supplied as: A crystalline 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

Oleandomycin is supplied as a crystalline solid. A stock solution may be made by dissolving the oleandomycin in the solvent of choice. Oleandomycin is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

Description

Oleandomycin is a classic macrolide antibiotic produced by strains of *Streptomyces* that demonstrates antimicrobial activity similar to penicillin and erythromycin.¹ Structurally, it consists of a macrocyclic lactone ring of 14 carbon atoms with one sugar, oleandrose, and one amino sugar, desoxamine, attached to the lactone ring. The mechanism of its biosynthesis and development of resistance to its antibiotic activity have been studied in order to understand the reactive enzymes in these processes.^{1,2}

References

1. Vilches, C., Méndez, C., Hardisson, C., *et al.* Biosynthesis of oleandomycin by *Streptomyces antibioticus*: Influence of nutritional conditions and development of resistance. *J. Gen. Microbiol.* **136(8)**, 1447-1454 (1990).
2. Quirós, L.M., and Salas, J.A. Biosynthesis of the macrolide oleandomycin by *Streptomyces antibioticus*. Purification and kinetic characterization of an oleandomycin glucosyltransferase. *J. Biol. Chem.* **270(31)**, 18234-18239 (1995).

WARNING

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

SAFETY DATA

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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