

PRODUCT INFORMATION

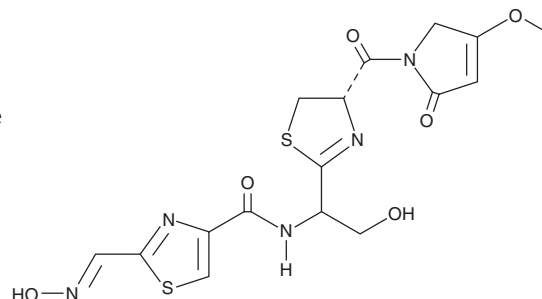


Althiomycin

Item No. 32887

CAS Registry No.: 12656-40-5
Formal Name: N-[1-[(4S)-4-[(2,5-dihydro-4-methoxy-2-oxo-1H-pyrrol-1-yl)carbonyl]-4,5-dihydro-2-thiazolyl]-2-hydroxyethyl]-2-[(E)-(hydroxyimino)methyl]-4-thiazolecarboxamide

Synonym: NSC 102809
MF: C₁₆H₁₇N₅O₆S₂
FW: 439.5
Purity: ≥90%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Bacterium/*Streptomyces althioticus* No. 245-Z2



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

Laboratory Procedures

Althiomycin is supplied as a crystalline solid. A stock solution may be made by dissolving the althiomycin in the solvent of choice, which should be purged with an inert gas. Althiomycin is soluble in organic solvents such as 2-ethoxyethanol, pyridine, and DMSO. Althiomycin is slightly soluble in methanol, ethyl acetate, and acetone.

Description

Althiomycin is a polyketide synthase-derived thiazole antibiotic originally isolated from *S. althioticus*.¹ It is active against Gram-positive bacteria, including *S. aureus*, *S. epidermidis*, and *S. pyogenes* (MICs = 25, 25, and 3.1 µg/ml, respectively).² Althiomycin inhibits protein synthesis in *E. coli* when used at concentrations of 1 and 10 µg/ml but not in isolated rabbit reticulocytes at 100 µg/ml.³

References

1. Gerc, A.J., Song, L., Challis, G.L., *et al.* The insect pathogen *Serratia marcescens* Db10 uses a hybrid non-ribosomal peptide synthetase-polyketide synthase to produce the antibiotic althiomycin. *PLoS One* **7(9)**, e44673 (2012).
2. Inami, K. and Shiba, T. Syntheses of althiomycin analogs in relation to antibacterial activities. *Bull. Chem. Soc. Jpn.* **59(7)**, 2185-2189 (1986).
3. Fujimoto, H., Kinoshita, T., Suzuki, H., *et al.* Studies on the mode of action of althiomycin. *J. Antibiot. (Tokyo)* **23(6)**, 271-275 (1970).

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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