

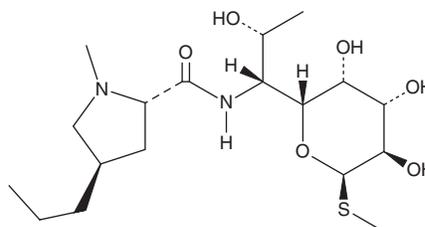
PRODUCT INFORMATION



Lincomycin

Item No. 21526

CAS Registry No.: 154-21-2
Formal Name: methyl 6,8-dideoxy-6-[[[(2S,4R)-1-methyl-4-propyl-2-pyrrolidinyl]carbonyl]amino]-1-thio-D-erythro- α -D-galacto-octopyranoside
Synonym: U-10149
MF: C₁₈H₃₄N₂O₆S
FW: 406.5
Purity: \geq 98%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Synthetic



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

Laboratory Procedures

Lincomycin is supplied as a solid. A stock solution may be made by dissolving the lincomycin in the solvent of choice, which should be purged with an inert gas. Lincomycin is slightly soluble in methanol and DMSO.

Description

Lincomycin is a lincosamide antibiotic originally isolated from *S. lincolnensis*.^{1,2} It is active against Gram-positive bacteria, including various strains of *S. aureus*, *S. epidermidis*, *S. pneumoniae*, and *S. pyogenes* (MICs = 0.2-3.2, 0.4-1.8, 0.01-0.8, and 0.04-0.8 μ g/ml, respectively).² Lincomycin selectively inhibits protein synthesis in purified ribosomes from *S. aureus* over *E. coli* (IC₅₀s = 0.03 and 1.7 μ g/ml, respectively, in cell-free assays).³ It is protective against development of mastitis in a mouse model of acute mastitis induced by *S. aureus* with a 50% protective dose (PD₅₀) value of 3.5 mg/kg.⁴ Formulations containing lincomycin have been used in the treatment of Gram-positive bacterial infections.

References

1. Wilson, D.N. The A-Z of bacterial translation inhibitors. *Crit. Rev. Biochem. Mol. Biol.* **44**(6), 393-433 (2009).
2. Spížek, J. and Řezanka, T. Lincomycin, clindamycin and their applications. *Appl. Microbiol. Biotechnol.* **64**(4), 455-464 (2004).
3. Matzov, D., Eyal, Z., Benhamou, R., et al. Structural insights of lincosamides targeting the ribosome of *Staphylococcus aureus*. *Nucleic Acids Res.* **45**(17), 10284-10292 (2017).
4. Yancey, R.J., Jr., Kinney, M.L., and Ford, C.W. Efficacy of lincosaminide antibiotics in the treatment of experimental staphylococcal mastitis in lactating mice. *J. Antimicrob. Chemother.* **15**(2), 219-232 (1985).

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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