

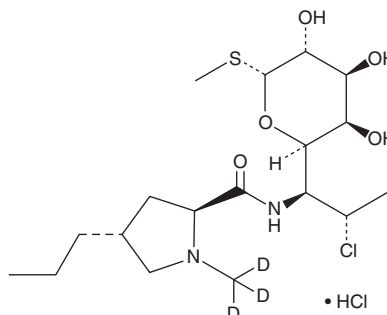
PRODUCT INFORMATION



Clindamycin-d₃ (hydrochloride)

Item No. 35424

CAS Registry No.: 1356933-72-6
Formal Name: (2S,4R)-N-((1S,2S)-2-chloro-1-((2R,3R,4S,5R,6R)-3,4,5-trihydroxy-6-(methylthio)tetrahydro-2H-pyran-2-yl)propyl)-1-(methyl-d₃)-4-propylpyrrolidine-2-carboxamide, monohydrochloride
MF: C₁₈H₃₀D₃ClN₂O₅S • HCl
FW: 464.5
Chemical Purity: ≥90% (Clindamycin)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Clindamycin-d₃ (hydrochloride) is intended for use as an internal standard for the quantification of clindamycin (Item Nos. 15006 | 35581) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Clindamycin-d₃ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the clindamycin-d₃ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Clindamycin-d₃ (hydrochloride) is soluble in the organic solvent DMSO.

Description

Clindamycin is a lincosamide antibiotic.^{1,2} It is active against Gram-positive bacteria, including various strains of *S. pneumoniae*, *S. viridans*, *S. aureus*, and *S. epidermidis* (MICs = 0.002-0.1, 0.005-0.2, 0.04-1.6, and 0.1-0.2 µg/ml, respectively).¹ Clindamycin is also active against chloroquine-resistant and -sensitive strains of *P. falciparum* (IC₅₀s = 3.12 and 8.81 nM, respectively).² It inhibits bacterial protein synthesis by interacting with the 50S ribosome.¹ Clindamycin increases survival in a mouse model of a secondary *S. pneumoniae* infection when administered at a dose of 15 mg/kg twice daily for seven days.³ Formulations containing clindamycin have been used in the treatment of bacterial infections.

References

- Spížek, J. and Řezanka, T. Lincomycin, clindamycin and their applications. *Appl. Microbiol. Biotechnol.* **64**(4), 455-464 (2004).
- Dahl, E.L. and Rosenthal, P.J. Multiple antibiotics exert delayed effects against the *Plasmodium falciparum* apicoplast. *Antimicrob. Agents Chemother.* **51**(10), 3485-3490 (2007).
- Karlström, Å., Boyd, K.L., English, B.K., et al. Treatment with protein synthesis inhibitors improves outcomes of secondary bacterial pneumonia after influenza. *J. Infect. Dis.* **199**(3), 311-319 (2009).

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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