

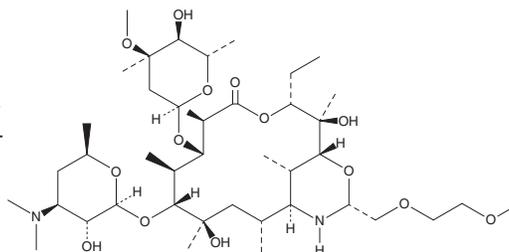
PRODUCT INFORMATION



Dirithromycin

Item No. 19466

CAS Registry No.: 62013-04-1
Formal Name: (1R,2R,3R,6R,7S,8S,9R,10R,12R,13S,15R,17S)-7-[(2,6-dideoxy-3-C-methyl-3-O-methyl- α -L-ribohexopyranosyl)oxy]-3-ethyl-2,10-dihydroxy-15-[(2-methoxyethoxy)methyl]-2,6,8,10,12,17-hexamethyl-9-[[[3,4,6-trideoxy-3-(dimethylamino)- β -D-xylohexopyranosyl]oxy]-4,16-dioxo-14-azabicyclo[11.3.1]heptadecan-5-one



Synonyms:
MF: C₄₂H₇₈N₂O₁₄
FW: 835.1
Purity: ≥95%
Supplied as: A crystalline 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

Dirithromycin is supplied as a crystalline solid. A stock solution may be made by dissolving the dirithromycin in the solvent of choice, which should be purged with an inert gas. Dirithromycin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of dirithromycin in these solvents is approximately 20, 15, and 10 mg/ml, respectively.

Dirithromycin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, dirithromycin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Dirithromycin has a solubility of approximately 0.14 mg/ml in a 1:6 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Dirithromycin is a macrolide antibiotic. It is a prodrug of erythromyclamine (Item No. 28098) that has outstanding activity against *Campylobacter*.¹ Dirithromycin is a group 3 agent with respect to its interaction with the cytochrome P450 (CYP) isoform 3A4, as it interferes poorly with CYP3A4 *in vitro* and generally does not alter drug metabolism *in vivo*.²

References

1. Hardy, D.J., Hensey, D.M., Beyer, J.M., *et al.* Comparative *in vitro* activities of new 14-, 15-, and 16-membered macrolides. *Antimicrob. Agents Chemother.* **32(11)**, 1710-1719 (1988).
2. Westphal, J.F. Macrolide - induced clinically relevant drug interactions with cytochrome P-450A (CYP) 3A4: An update focused on clarithromycin, azithromycin and dirithromycin. *Br. J. Clin. Pharmacol.* **50(4)**, 285-295 (2000).

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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