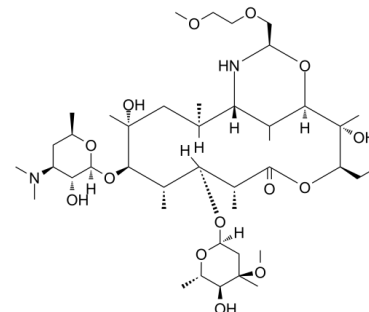


Data Sheet

Product Name:	Dirithromycin
Cat. No.:	CS-2877
CAS No.:	62013-04-1
Molecular Formula:	C ₄₂ H ₇₈ N ₂ O ₁₄
Molecular Weight:	835.07
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	Ethanol : ≥ 50 mg/mL (59.88 mM); DMSO : 33.33 mg/mL (39.91 mM); Need ultrasonic)



BIOLOGICAL ACTIVITY:

Dirithromycin (LY 237216) is a macrolide glycopeptide antibiotic by binding to the 50S subunit of the 70S bacterial ribosome to inhibit the translocation of peptides. Target: Antibacterial Dirithromycin is a new macrolide with a spectrum and degree of in vitro antimicrobial activity similar to that of erythromycin. Compared with erythromycin, dirithromycin has a long elimination half-life enabling once-daily administration, and it also achieves a greater cellular:extracellular concentration ratio and higher concentration in some tissues. Multicentre double-blind clinical trials have shown dirithromycin to be similar in efficacy to erythromycin in the treatment of uncomplicated bacterial infections of the respiratory tract and of skin and soft tissues [1]. Dirithromycin offers some attractive pharmacokinetic properties. The long elimination half-life of dirithromycin allows once-daily dosing and higher and more prolonged tissue concentrations than are achievable with erythromycin. The spectrum of activity, adverse effect profile, clinical efficacy, and bacteriologic eradication rate of dirithromycin may be similar to those of erythromycin [2, 3].

References:

- [1]. Brogden, R.N. and D.H. Peters, Dirithromycin. A review of its antimicrobial activity, pharmacokinetic properties and therapeutic efficacy. *Drugs*, 1994. 48(4): p. 599-616.
- [2]. Wintermeyer, S.M., S.M. Abdel-Rahman, and M.C. Nahata, Dirithromycin: a new macrolide. *Ann Pharmacother*, 1996. 30(10): p. 1141-9.
- [3]. Sides, G.D., et al., Pharmacokinetics of dirithromycin. *J Antimicrob Chemother*, 1993. 31 Suppl C: p. 65-75.

CAIndexNames:

4,16-Dioxo-14-azabicyclo[11.3.1]heptadecan-5-one, 7-[(2,6-dideoxy-3-C-methyl-3-O-methyl-α-L-ribo-hexopyranosyl)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-xylo-hexopyranosyl]oxy]-, (1R,2R,3R,6R,7S,8S,9R,10R,12R,13S,15R,17S)-

SMILES:

CC1[C@@]([C@](O)([C@H](OC([C@H]2C=O)CC)C)([H])O[C@H](COCCOC)N[C@@]1([H])[C@](C[C@@](O)([C@H]([C@H](C)[C@]2([H])O[C@@](O)[C@H](C)[C@@H]3O)([H])C[C@@]3(C)OC)O[C@@](O[C@H](C)C[C@@H]4N(C)C)([H])[C@@H]4O)C)([H])C

Caution: Product has not been fully validated for medical applications. For research use only.

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