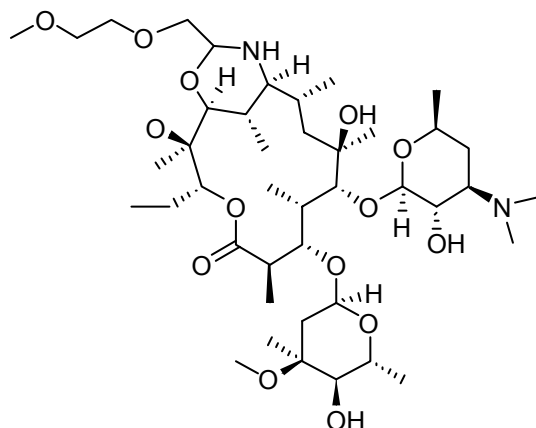


## Dirithromycin

Code: **BIA-D1314**

Pack sizes: **5 mg, 25 mg**



Synonyms : **LY-237216**

### Specifications

CAS # : **62013-04-1**  
Molecular Formula : **C<sub>42</sub>H<sub>78</sub>N<sub>2</sub>O<sub>14</sub>**  
Molecular Weight : **835.1**  
Source : **Semi-synthetic**  
Appearance : **White solid**  
Purity : **>98%**  
Storage : **-20°C**  
Solubility : **Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.**

### Application Notes

Dirithromycin is a macrolide antibiotic pro-drug of 9S-erythromyclamine, a close analogue of erythromycin in which the 9-keto group is replaced with an amino group in the S-configuration. Although erythromyclamine overcomes the acid instability of erythromycin, it is poorly absorbed following oral administration. Dirithromycin is formed by reaction of erythromyclamine with an aldehyde to form a Schiff base which undergoes cyclisation to an oxazine with the C11-alcohol. Dirithromycin provides higher tissue levels and prolonged *in vivo* half-life by slowly releasing erythromyclamine.

### References

1. Synthesis and antimicrobial evaluation of dirithromycin (AS-E 136: LY237216), a new macrolide antibiotic derived from erythromycin. Counter F.T. *et al.* Antimicrob. Agents Chemother. **1991**, 35, 1116.
2. Dirithromycin: Introduction and historical development. Kirst H.A. Drugs Today **1995**, 31, 89.