

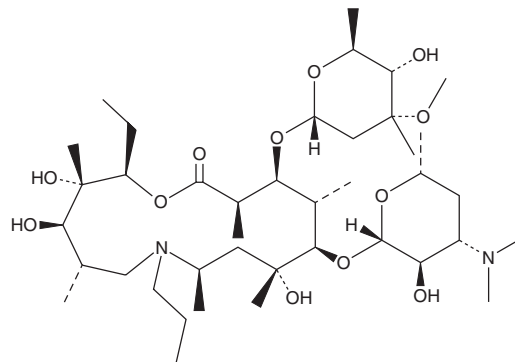
# PRODUCT INFORMATION



## Gamithromycin

Item No. 23389

**CAS Registry No.:** 145435-72-9  
**Formal Name:** (2R,3S,4R,5S,8R,10R,11R,12S,13S,14R)-13-[(2,6-dideoxy-3-C-methyl-3-O-methyl- $\alpha$ -L-ribo-hexopyranosyl)oxy]-2-ethyl-3,4,10-trihydroxy-3,5,8,10,12,14-hexamethyl-7-propyl-11-[[3,4,6-trideoxy-3-(dimethylamino)- $\beta$ -D-xylohexopyranosyl]oxy]-1-oxa-7-azacyclopentadecan-15-one  
**Synonym:** ML-1709460  
**MF:** C<sub>40</sub>H<sub>76</sub>N<sub>2</sub>O<sub>12</sub>  
**FW:** 777.0  
**Purity:**  $\geq$ 95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 2 years



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

### Laboratory Procedures

Gamithromycin is supplied as a crystalline solid. A stock solution may be made by dissolving the gamithromycin in the solvent of choice. Gamithromycin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of gamithromycin in ethanol and DMF is approximately 16 mg/ml and approximately 5 mg/ml in DMSO.

Gamithromycin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, gamithromycin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Gamithromycin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Gamithromycin is an antibiotic that is active against macrolide-resistant *R. equi* and *S. zooepidemicus* (MIC<sub>90s</sub> = 1 and 0.125  $\mu$ g/ml, respectively).<sup>1</sup> It reduces the number of pneumonic lesions in a bovine *M. haemolytica* challenge model at a dose of 6 mg/kg.<sup>2</sup> Formulations containing gamithromycin have been used to treat bovine respiratory diseases.<sup>3</sup>

### References

- Berghaus, L.J., Giguere, S., Sturgill, T.L., *et al.* Plasma pharmacokinetics, pulmonary distribution, and *in vitro* activity of gamithromycin in foals. *J. Vet. Pharmacol. Ther.* **35(1)**, 59-66 (2012).
- Forbes, A.B., Ramage, C., Sales, J., *et al.* Determination of the duration of antibacterial efficacy following administration of gamithromycin using a bovine *Mannheimia haemolytica* challenge model. *Antimicrob. Agents Chemother.* **55(2)**, 831-835 (2011).
- Capik, S.F., White, B.J., Lubbers, B.V., *et al.* Comparison of the diagnostic performance of bacterial culture of nasopharyngeal swab and bronchoalveolar lavage fluid samples obtained from calves with bovine respiratory disease. *Am. J. Vet. Res.* **78(3)**, 350-358 (2017).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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