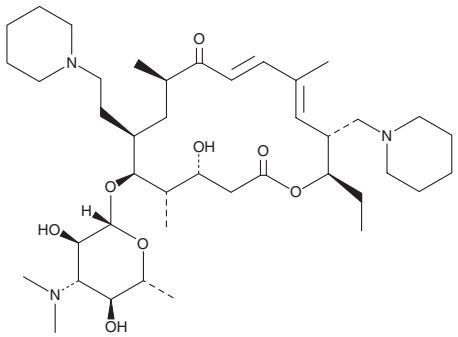
PRODUCT INFORMATION

Tildipirosin

Item No. 17089

CAS Registry No.:	328898-40-4
Formal Name:	20-deoxo-23-deoxy-5-O-[3,6-dideoxy-3-(dimethylamino)-β-D-glucopyranosyl]-20,23-di-1-piperidinyl-tylonolide
MF:	$C_{41}H_{71}N_3O_8$
FW:	734.0
Purity:	≥95%
UV/Vis.:	λ_{max}: 286 nm
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

Tildipirosin is supplied as a solid. A stock solution may be made by dissolving the tildipirosin in the solvent of choice, which should be purged with an inert gas. Tildipirosin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of tildipirosin in these solvents is approximately 30 mg/ml.

Tildipirosin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tildipirosin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Tildipirosin has a solubility of approximately 0.33 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Tildipirosin is a 16-membered macrolide used as an antibiotic in veterinary medicine. Like other macrolides, it inhibits protein synthesis in bacteria and blocks the production of biofilms.[1,2] Tildipirosin is particularly effective against Gram-negative pathogens (MIC = 0.25-1 µg/ml against *P. multocida* and *M. haemolytica*).[1,3] It is commonly used against respiratory infections in swine and cattle.[1,3]

References

1. Andersen, N.M., Poehlsgaard, J., Warrass, R., *et al.* Inhibition of protein synthesis on the ribosome by tildipirosin compared with other veterinary macrolides. *Antimicrob. Agents Chemother.* **56(11)**, 6033-6036 (2012).
2. Rademacher, J. and Welte, T. Bronchiectasis-diagnosis and treatment. *Dtsch. Arztebl. Int.* **108(48)**, 809-815 (2011).
3. Michael, G.B., Eidam, C., Kadlec, K., *et al.* Increased MICs of gamithromycin and tildipirosin in the presence of the genes *erm*(42) and *msr*(E)-*mph*(E) for bovine *Pasteurella multocida* and *Mannheimia haemolytica*. *J. Antimicrob. Chemother.* **67(6)**, 1555-1557 (2012).

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