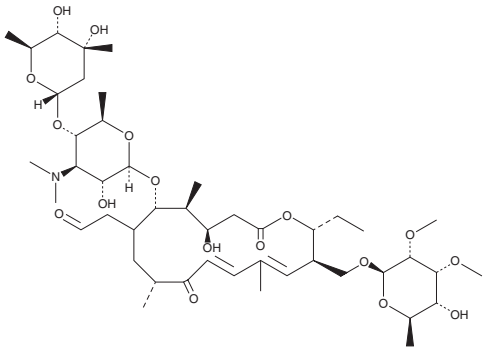
PRODUCT INFORMATION

Tylosin

Item No. 22599



CAS Registry No.:	1401-69-0
MF:	$C_{46}H_{77}NO_{17}$
FW:	916.1
Purity:	≥98% (mixture of tylosins)
UV/Vis.:	λ_{max}: 282 nm
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

Tylosin is supplied as a crystalline solid. A stock solution may be made by dissolving the tylosin in the solvent of choice, which should be purged with an inert gas. Tylosin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of tylosin in ethanol and DMF is approximately 30 mg/ml and approximately 25 mg/ml in DMSO.

Description

Tylosin is a macrolide antibiotic produced by *S. fradiae* that has bacteriostatic activity against Gram-positive bacteria.[1] It is a mixture of tylosin A, B, C, and D, with tylosin A contributing 80% of its bacteriostatic activity. Tylosin has MIC values of 9.6, 16.4, 0.1, 1, and 0.5 µg/ml for *F. necrophorum*, *A. pyogenes*, *M. gallisepticum*, *S. aureus*, and *S. uberis*, respectively.[2-4] Formulations containing tylosin have been used for the prevention of liver abscesses in cattle.[3] Tylosin is an environmental contaminant because it is not fully metabolized by treated livestock and enters the environment through manure-based fertilizers.[5]

References

1. Arsic, B., Barber, J., Čikoš, A., *et al.* 16-membered macrolide antibiotics: A review. *Int. J. Antimicrob. Agents* 30238-30280 (2017).
2. Bonnier, M., Doré, C., Amédéo, J., *et al. In vitro* activity of tylosin and tilmicosin against cocci isolated from bovine mastitis. *Revue Méd. Vét.* **157(10)**, 486-489 (2006).
3. Nagaraja, T.G. and Chengappa, M.M. Liver abscesses in feedlot cattle: A review. *J. Anim. Sci.* **76(1)**, 287-298 (1998).
4. Jordan, F.T. and Knight, D. The minimum inhibitory concentration of kitasamycin, tylosin and tiamulin for Mycoplasma gallisepticum and their protective effect on infected chicks. *Avian Pathol.* **13(2)**, 151-162 (1984).
5. Washington, M.T., Moorman, T.B., Soupir, M.L., *et al.* Monitoring tylosin and sulfamethazine in a tile-drained agricultural watershed using polar organic chemical integrative sampler (POCIS). *Sci. Total. Environ.* **612**, 358-367 (2017).

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