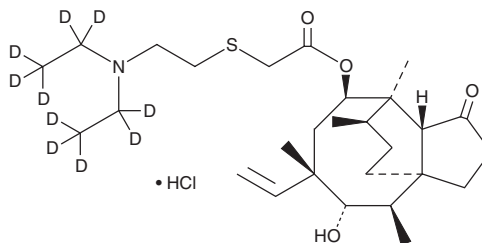


PRODUCT INFORMATION



Tiamulin-d₁₀ (hydrochloride) Item No. 29580

CAS Registry No.: 2750534-93-9
Formal Name: (3aR,4S,5R,7S,8S,9R,9aS,12R)-8-hydroxy-4,7,9,12-tetramethyl-3-oxo-7-vinyldecahydro-4,9a-propanocyclopenta[8]annulen-5-yl 2-((2-(bis(ethyl-d₅)amino)ethyl)thio)acetate, monohydrochloride
MF: C₂₈H₃₇D₁₀NO₄S • HCl
FW: 540.3
Chemical Purity: ≥95% (Tiamulin)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₁₀); ≤1% d₀
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

Tiamulin-d₁₀ is intended for use as an internal standard for the quantification of tiamulin (Item No. 21216) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Description

Tiamulin is a pleuromutilin antibiotic.¹ It is active against *M. gallisepticum*, *M. synoviae*, *M. iowae*, *M. hyopneumoniae*, *M. hyosynoviae*, *M. hyorhinis*, *M. bovis*, and *M. agalactiae* (MICs = 0.0025-0.25 µg/ml). Tiamulin is also active against various Gram-positive bacteria, including methicillin-resistant *S. aureus* (MRSA).² Tiamulin binds to the peptidyl transferase in the 50S ribosomal subunit to inhibit protein synthesis. Formulations containing tiamulin have been used in the treatment of veterinary enteric diseases and enzootic pneumonia.

References

1. Hannan, P.C.T., Windsor, G.D., de Jong, A., *et al.* Comparative susceptibilities of various animal-pathogenic mycoplasmas to fluoroquinolones. *Antimicrob. Agents Chemother.* **41**(9), 2037-2040 (1997).
2. Wilson, D.N. The A-Z of bacterial translation inhibitors. *Crit. Rev. Biochem. Mol. Biol.* **44**(6), 393-433 (2009).

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.

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