

Product Data Sheet

Product Name: Tylvalosin tartrate

Cat. No.: GC61363

Chemical Properties

Cas. No. 63428-13-7

SMILES OC([C@H](O)[C@@H](O)C(O)=O)=O.O[C@@H]1[C@@H](C)O[C@@H](OC[C@H]([C@@H](CC)OC(C[C@@H](OC(C)=O)[C@H](C)[C@@H](O[C@@H]2O[C@H](C)[C@@H](O[C@@H]3O[C@@H](C)[C@H](OC(CC(C)C)=O)[C@@](O)(C)C3)[C@H](N(C)C)[C@H]2O)[C@@H](CC=O)C[C@H]4C)=O)/C=C(C)/C=C/C4=O)[C@H](OC)[C@@H]1OC

Formula C₅₇H₉₃NO₂₅ M.Wt 1192.34

Solubility DMSO: 100 mg/mL (83.87 mM) Storage -20°C, stored under nitrogen

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

Tylvalosin is a macrolide antibiotic.¹ It is active against *S. aureus*, *E. coli*, and *P. multocida* (MICs = 2, 128, and 128 µg/ml, respectively). Tylvalosin (5 and 10 µg/ml) reduces LPS-induced production of pro-inflammatory cytokines, prostaglandin E₂ , and nitric oxide in RAW 264.7 cells.² It reduces the severity of lung lesions in pigs infected with *M. hyopneumoniae* and *P. multocida* when administered at a dose of 10 mg/kg per day in the drinking water.³ Formulations containing tylvalosin have been used in the treatment and metaphylaxis of enzootic pneumonia caused by *M. hyopneumoniae* in pigs.

1. Yang, B., Lei, Z., Zhao, Y., et al. Combination susceptibility testing of common antimicrobials in vitro and the effects of sub-MIC of antimicrobials on *Staphylococcus aureus* biofilm formation *Front. Microbiol.* 8:2125 (2017) 2. Zhao, Z., Tang, X., Zhao, X., et

Caution: Product has not been fully validated for medical applications. For research use only.

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al.Tylvalosin exhibits anti-inflammatory property and attenuates acute lung injury in different models possibly through suppression of NF- κ B activation *Biochem. Pharmacol.*90(1)73-87(2014) 3.Lopez Rodriguez, A., Berge, A.C., Ramage, C., et al.Evaluation of the clinical efficacy of a water soluble formulation of tylvalosin in the control of enzootic pneumonia associated with *Mycoplasma hyopneumoniae* and *Pasteurella multocida* in pigs *Porcine Health Manag.*6(1)39(2020)

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