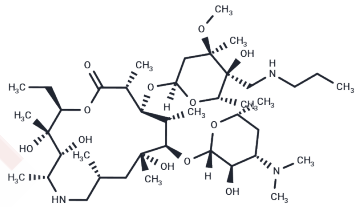
Data Sheet (Cat.No.T4267)

TargetMol

Tulathromycin A

Chemical Properties



CAS No. : 217500-96-4

Formula: C41H79N3O12

Molecular Weight: 806.08

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Tulathromycin A (CP 472295) is a macrolide antibiotic.
Targets(IC50)	Antibacterial,Antibiotic
In vitro	145 calves were inoculated by two highly pathogenic strains of M. bovis (with minimum inhibitory concentration values for tulathromycin of 1 and >64 μg/ml). Four days after inoculation, calves with clinical BRD were treated subcutaneously with saline or tulathromycin (2.5 mg/kg). Compared with saline, BRD-related withdrawals, peak rectal temperatures, and lung lesion scores were significantly lower for tulathromycin-treated calves (P .01). Tulathromycin was highly effective in the treatment of BRD due to M. bovis in calves regardless of the minimum inhibitory concentration of the challenge strain (1 or >64 μg/ml). The MIC90 for tulathromycin were 1 μg/ml for Pasteurella multocida (bovine), 2 μg/ml for Mannheimia (Pasteurella) haemolytica, and 2 μg/ml for Pasteurella multocida (porcine) and ranged from 4-16 μg/ml for Actinobacillus pleuropneumoniae and from 0.5-4 μg/ml for Histophilus somni (Haemophilus somnus).
In vivo	Each study randomly allocated 250 calves to receive tulathromycin at 2.5 mg/kg and 250 calves to receive either florfenicol at 40 mg/kg or tilmicosin at 10 mg/kg on arrival at the feedlot. Calves were housed by treatment group in pens with 50 calves/pen. The treatment groups were physiologic saline (n=160) given SC at 0.02 ml/kg, tulathromycin (n=20) given SC at 2.5 mg/kg, and tilmicosin (n = 320) given SC at 10 mg/kg.

Solubility Information

Solubility	DMSO: 60 mg/mL (74.43 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2406 mL	6.2029 mL	12.4057 mL
5 mM	0.2481 mL	1.2406 mL	2.4811 mL
10 mM	0.1241 mL	0.6203 mL	1.2406 mL
50 mM	0.0248 mL	0.1241 mL	0.2481 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Villarino N, et al. Pharmacokinetics of tulathromycin in healthy and neutropenic mice challenged intranasally withlipopolysaccharide from Escherichia coli. Antimicrob Agents Chemother. 2012 Aug;56(8):4078-4086.
Godinho KS, et al. Efficacy of tulathromycin in the treatment of bovine respiratory disease associated with induced Mycoplasma bovis infections in young dairy calves. Vet Ther. 2005 Summer;6(2):96-112.
Godinho KS, et al. Minimum inhibitory concentrations of tulathromycin against respiratory bacterial pathogens isolated from clinical cases in European cattle and swine and variability arising from changes in in vitro methodology. Vet Ther. 2005 Summer;6(2):113-21.
Rooney KA, et al. Efficacy of tulathromycin compared with tilmicosin and florfenicol for the control of respiratory disease in cattle at high risk of developing bovine respiratory disease. Vet Ther. 2005 Summer;6(2):154-66.

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