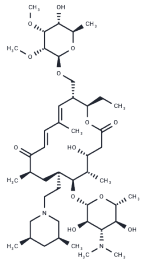
# Data Sheet (Cat.No.T0777)

TargetMol

## Tilmicosin

### Chemical Properties



CAS No. : 108050-54-0

Formula: C46H80N2O13

Molecular Weight: 869.13

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | Tilmicosin (EL-870) is a macrolide antibiotic. It is used in veterinary medicine for the treatment of bovine respiratory disease and ovine respiratory disease associated with Mannheimia haemolytica. |
| Targets(IC50) | Apoptosis,Calcium Channel,Antibacterial,Antibiotic |
| In vivo | After a subcutaneous injection, tilmicosin is eliminated more slowly from serum and milk, with t1/2 beta S of 29.3 and 41.4 hours, respectively. The apparent volume of distribution of tilmicosin is more than 1 L/kg. The peak serum tilmicosin concentration is 1.56 μg/mL. 6.39 hours after a subcutaneous injection of 10 mg/kg. Tilmicosin is extensively secreted into milk, reaching a maximum concentration of 11.6 μg/mL and having a large AUCmilk/AUCserum ratio of approximately 12:1. Tilmicosin is detectable in milk for 11 days after a single subcutaneous dose.[2] |

### Solubility Information

| | |
|---|---|
| Solubility | H2O: 8 mg/mL (9.2 mM),Sonication is recommended.<br>DMSO: 250 mg/mL (287.64 mM),Sonication is recommended.<br>Ethanol: < 1 mg/mL (insoluble or slightly soluble),<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+90% Corn oil: 10 mg/mL (11.51 mM),Solution.<br>10% DMSO+90% Saline: < 10 mg/mL (11.51 mM),Lower concentrations may be soluble, but exact solubility limit is unknown.<br>10% DMSO+90% (20% SBE-β-CD in Saline): < 10 mg/mL (11.51 mM),Lower concentrations may be soluble, but exact solubility limit is unknown.<br>10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (11.51 mM),Solution.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.1506 mL | 5.7529 mL | 11.5058 mL |
| 5 mM | 0.2301 mL | 1.1506 mL | 2.3012 mL |
| 10 mM | 0.1151 mL | 0.5753 mL | 1.1506 mL |
| 50 mM | 0.023 mL | 0.1151 mL | 0.2301 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Ose EE. et al. J Antibiot (Tokyo), 1987, 40(2), 190-194.
Ramadan A. Res Vet Sci, 1997, 62(1), 48-50.
Yazar E, et al. J Vet Med B Infect Dis Vet Public Health, 2002, 49(4), 209-210.