Marbofloxacin

Cat. No.: HY-B0126
CAS No.: 115550-35-1
Molecular Formula: C₁₇H₁₉FN₄O₄
Molecular Weight: 362.36
Target: Bacterial
Pathway: Anti-infection
Storage:
- Powder: -20°C 3 years, 4°C 2 years, In solvent -80°C 6 months, -20°C 1 month

SOLVENT & SOLUBILITY

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass (mg)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO</td>
<td>≥ 3.8 mg/mL (10.49 mM)</td>
<td></td>
</tr>
</tbody>
</table>

Preparation of Stock Solutions

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.7597 mL</td>
<td>13.7984 mL</td>
<td>27.5969 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5519 mL</td>
<td>2.7597 mL</td>
<td>5.5194 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2760 mL</td>
<td>1.3798 mL</td>
<td>2.7597 mL</td>
</tr>
</tbody>
</table>

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Marbofloxacin is a potent antibiotic of which depends upon its inhibition of DNA-gyrase. Marbofloxacin is a synthetic, broad spectrum bactricidal agent. Target: DNA-gyrase
Marbofloxacin is a third-generation fluoroquinolone for veterinary use, the antimicrobial of which depends upon its inhibition of DNA-gyrase and topoisomerase IV. With a broad spectrum bactericidal activity and good efficacy, marbofloxacin is indicated for dermatological, respiratory and urinary tract infections due to both Gram-positive and Gram-negative bacteria and Mycoplasma [1]. Administration of Marbofloxacin at 6 mg/kg once daily for 7 days in a Staphylococcus aureus infection in tissue cages in ponies is not effective for the elimination of S. aureus infections from secluded sites [2]. The pharmacokinetic properties of marbofloxacin were investigated in 6 horses after i.v., subcutaneous and oral administration of a single dose of 2 mg/kg bwt and the minimal inhibitory concentrations (MIC) assessed for bacteria isolated from equine infectious pathologies. The clearance of marbofloxacin was mean +/- s.d. 0.25 +/- 0.05 l/kg/h and the terminal half-life 756 +/- 1.99 h. The marbofloxacin absolute bioavailabilities after subcutaneous and oral administration were 98 +/- 11% and 62 +/- 8%, respectively. Considering the breakpoint values of efficacy indices for fluoroquinolones, a marbofloxacin dosage regimen of 2 mg/kg bwt/24 h by i.v., subcutaneous or oral routes was more appropriate for...
enterobacteriaceae than for S. aureus [3]. Toxicity: cramps; vomiting; anorexia; soft stools; diarrhoea

REFERENCES


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

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