Pazufloxacin mesylate

Cat. No.: HY-B0724A
CAS No.: 163680-77-1
Molecular Formula: C₁₇H₁₉FN₂O₇S
Molecular Weight: 414.41
Target: Bacterial; Antibiotic
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

In Vitro
DMSO : 100 mg/mL (241.31 mM; Need ultrasonic)
H₂O : ≥ 100 mg/mL (241.31 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Solvent Concentration</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td>2.4131 mL</td>
<td>12.0653 mL</td>
<td>24.1307 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.4826 mL</td>
<td>2.4131 mL</td>
<td>4.8261 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.2413 mL</td>
<td>1.2065 mL</td>
<td>2.4131 mL</td>
</tr>
</tbody>
</table>

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

In Vivo
1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.03 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.03 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.03 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Pazufloxacin (T-3761) mesylate is a fluoroquinolone antibiotic. Target: Antibacterial
Pazufloxacin (T-3761), a new quinolone derivative, showed broad and potent antibacterial activity. T-3761 showed good efficacy in mice against systemic, pulmonary, and urinary tract infections with gram-positive and gram-negative bacteria, including quinolone-resistant Serratia marcescens and Pseudomonas aeruginosa. The in vivo activity of T-3761 was comparable
to or greater than those of ofloxacin, ciprofloxacin, norfloxacin, and tosufloxacin against most infection models in mice. The activities of T-3761 were lower than those of tosufloxacin against gram-positive bacterial systemic and pulmonary infections in mice but not against infections with methicillin-resistant Staphylococcus aureus [1]. T-3761 had a broad spectrum of activity and had potent activity against gram-positive and -negative bacteria. The MICs of T-3761 against 90% of the methicillin-susceptible Staphylococcus aureus, methicillin-susceptible and -resistant Staphylococcus epidermidis, and Clostridium spp. tested were 0.39 to 6.25 micrograms/ml. The MBCs of T-3761 were either equal to or twofold greater than the MICs. The 50% inhibitory concentrations of T-3761 for DNA gyrase isolated from E. coli and P. aeruginosa were 0.88 and 1.9 micrograms/ml, respectively [2].

REFERENCES
