Cefozopran hydrochloride

Cat. No.: HY-B0771A
CAS No.: 113981-44-5
Molecular Formula: C₁₉H₁₈ClN₉O₅S₂
Molecular Weight: 551.99
Target: Bacterial; Antibiotic
Pathway: Anti-infection
Storage: -20°C, stored under nitrogen, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen, away from moisture)

**SOLVENT & SOLUBILITY**

**In Vitro**

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass</th>
<th>Solvent Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₂O</td>
<td>≥ 52 mg/mL (94.20 mM)</td>
<td>* &quot;≥&quot; means soluble, but saturation unknown.</td>
</tr>
<tr>
<td></td>
<td>1 mg</td>
<td>5 mg</td>
</tr>
<tr>
<td>1 mM</td>
<td>1.8116 mL</td>
<td>9.0581 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.3623 mL</td>
<td>1.8116 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.1812 mL</td>
<td>0.9058 mL</td>
</tr>
</tbody>
</table>

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

**BIOLOGICAL ACTIVITY**

**Description**

Cefozopran (SCE-2787) hydrochloride is a semi-synthetic, parenteral, fourth-generation cephalosporin. Cefozopran hydrochloride, an antibiotic, has a broad spectrum of antibacterial activity, inhibiting most of the gram-negative and gram-positive organisms.[1][2]

**In Vitro**

Cefozopran (SCE-2787) is a fourth-generation cephalosporin that has good activity against gram-positive organisms including methicillin-susceptible staphylococci, enterococci, and viridans group streptococci; and against gram-negative organisms including hemophilus influenza. Moreover, cefozopran has comparatively good activity against enterococci and P. aeruginosa, which are refractory to other cephalosporins.[2] MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

Cefozopran (SCE-2787) (5-80 mg/kg; s.c.; twice a day for 5 days; four-week-old ICR male mice) is effective against acute respiratory tract infections caused by Kiebsiella pneumonia DT-S. In the model of chronic respiratory tract infection caused by K. pneumoniae 27, Cefozopran (20-80 mg/kg; s.c.; twice a day for 7 days; five-week-old CBA/J female mice) is as effective as Ceftazidime.[2]
REFERENCES
