Chloroprocaine hydrochloride

Cat. No.: HY-B1604
CAS No.: 3858-89-7
Molecular Formula: C₁₃H₂₀Cl₂N₂O₂
Molecular Weight: 307.22
Target: Na+/K+ ATPase
Pathway: Membrane Transporter/Ion Channel
Storage: 4°C, protect from light, stored under nitrogen
* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)

SOLVENT & SOLUBILITY

In Vitro
DMSO: 83.33 mg/mL (271.24 mM; Need ultrasonic)

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Solvent Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>3.2550 mL</td>
<td>16.2750 mL</td>
<td>32.5500 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6510 mL</td>
<td>3.2550 mL</td>
<td>6.5100 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3255 mL</td>
<td>1.6275 mL</td>
<td>3.2550 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: ≥ 6.25 mg/mL (20.34 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 6.25 mg/mL (20.34 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 6.25 mg/mL (20.34 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Chloroprocaine hydrochloride (2-Chloroprocaine hydrochloride) is a potent inhibitor of Na,K-ATPase activity with an IC₅₀ of 13 mM. Chloroprocaine hydrochloride blocks peripheral nerve[1].

IC₅₀ & Target
IC₅₀: 13 mM (Na,K-ATPase)[1]

In Vivo
In mice, the intravenous LD₅₀ of Chloroprocaine hydrochloride is 97 mg/kg and the subcutaneous LD₅₀ of Chloroprocaine hydrochloride is 950 mg/kg[1].
REFERENCES


[2]. Chloroprocaine HCl Injection.