Rimeporide

Cat. No.: HY-19273
CAS No.: 187870-78-6
Molecular Formula: C₁₁H₁₅N₃O₅S₂
Molecular Weight: 333.38
Target: Sodium Channel
Pathway: Membrane Transporter/Ion Channel
Storage: Powder -20°C 3 years
In solvent -80°C 6 months

SOLVENT & SOLUBILITY

In Vitro
DMSO : 20 mg/mL (59.99 mM; Need ultrasonic and warming)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Mass (1 mg)</th>
<th>Solvent Mass (5 mg)</th>
<th>Solvent Mass (10 mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Concentration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 mM</td>
<td>2.9996 mL</td>
<td>14.9979 mL</td>
<td>29.9958 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5999 mL</td>
<td>2.9996 mL</td>
<td>5.9992 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3000 mL</td>
<td>1.4998 mL</td>
<td>2.9996 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: ≥ 2.08 mg/mL (6.24 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.24 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.24 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Rimeporide (EMD-87580) is a potent and selective inhibitor of the Na⁺/H⁺ exchanger (NHE-1).

IC₅₀ & Target
NHE1[¹]

In Vitro
Blocking NHE-1 activity has been shown to decrease intracellular Na⁺ and Ca²⁺ overload and pH and Rimeporide (EMD-87580) represents a new therapeutic option for duchenne muscular dystrophy (DMD). Rimeporide (EMD-87580) is expected to act as a muscle-sparing agent and its mode of action means that it is mutation independent[¹].
REFERENCES


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