Dexpramipexole dihydrochloride

Cat. No.: HY-17355A
CAS No.: 104632-27-1
Molecular Formula: C₁₀H₁₉Cl₂N₃S
Molecular Weight: 284.25
Target: Dopamine Receptor
Pathway: GPCR/G Protein; Neuronal Signaling
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 (351.80 mM)
H₂O : 100 mg/mL (351.80 mM; Need ultrasonic)

* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>3.5180 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>17.5902 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>35.1803 mL</td>
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</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 (8.80 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.80 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.80 mM); Clear solution

**BIOLOGICAL ACTIVITY**

**Description**
Dexpramipexole dihydrochloride ((R)-Pramipexole dihydrochloride) is a neuroprotective agent and weak non-ergoline dopamine agonist.

**In Vitro**
Dexpramipexole has been found to have neuroprotective effects and is being investigated for treatment of...
Amyotrophic lateral sclerosis (ALS). Dexpramipexole reduces mitochondrial reactive oxygen species (ROS) production, inhibits the activation of apoptotic pathways, and increase cell survival in response to a variety of neurotoxins and β-amyloid neurotoxicity. Compared to the $S$(-) isomer, Dexpramipexole has much lower dopamine agonist activity.

REFERENCES


