Paliperidone

Cat. No.: HY-A0019
CAS No.: 144598-75-4
Molecular Formula: C₂₃H₂₇FN₄O₃
Molecular Weight: 426.48
Target: Dopamine Receptor; 5-HT Receptor; Adrenergic 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 : 5 mg/mL (11.72 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>2.3448 mL</td>
<td>11.7239 mL</td>
<td>23.4478 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.4690 mL</td>
<td>2.3448 mL</td>
<td>4.6896 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2345 mL</td>
<td>1.1724 mL</td>
<td>2.3448 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: ≥ 0.5 mg/mL (1.17 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 0.5 mg/mL (1.17 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 0.5 mg/mL (1.17 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Paliperidone (9-Hydroxyrisperidone), the major active metabolite of Risperidone, is a dopamine D₂ antagonist and 5-HT₂A antagonist. Paliperidone is also active as an antagonist at α1 and α2 adrenergic receptors and H1-histaminergic receptors. Paliperidone, a antipsychotic agent, shows efficacy against schizophrenia[1].

IC₅₀ & Target

<table>
<thead>
<tr>
<th>D₂ Receptor</th>
<th>5-HT₂A Receptor</th>
<th>α1 adrenergic receptor</th>
<th>α2 adrenergic receptor</th>
</tr>
</thead>
</table>

REFERENCES


