Talampanel

Cat. No.: HY-15079
CAS No.: 161832-65-1
Molecular Formula: C₁₉H₁₉N₃O₃
Molecular Weight: 337.37
Target: iGluR
Pathway: Membrane Transporter/Ion Channel; 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 (296.41 mM)
* “≥” means soluble, but saturation unknown.

<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>2.9641 mL</td>
<td>14.8205 mL</td>
<td>29.6410 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.5928 mL</td>
<td>2.9641 mL</td>
<td>5.9282 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2964 mL</td>
<td>1.4821 mL</td>
<td>2.9641 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: ≥ 2.5 mg/mL (7.41 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Talampanel (LY300164) is an orally and selective α-amino-3-hydroxy-5-methyl-4-isoxazolepropionate (AMPA) receptor antagonists with anti-seizure activity[1]. Talampanel (IVAX) has neuroprotective effects in rodent stroke models[2]. Talampanel attenuates caspase-3 dependent apoptosis in mouse brain[2].

In Vivo
Talampanel (orally administration; 5 mg/kg; once a day; 2 weeks) reduces motoneuronal calcium in a mouse model of ALS, but its efficacy declines as the disease progresses[1].
**Animal Model:** Female mutant SOD1 Tg mice[1]

**Dosage:** 5 mg/kg

**Administration:** Orally administration; 5 mg/kg; once a day; 2 weeks

**Result:** Had a significant effect in reducing the calcium level only at the age of 12 weeks.

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**REFERENCES**
