GPI-1046

Cat. No.: HY-124619
CAS No.: 186452-09-5
Molecular Formula: C₂₀H₂₈N₂O₄
Molecular Weight: 360.45
Target: FKBP; HIV
Pathway: Apoptosis; Autophagy; Immunology/Inflammation; Anti-infection
Storage: 4°C, protect from light
* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

SOLVENT & SOLUBILITY

In Vitro DMSO: ≥ 100 mg/mL (277.43 mM)
* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass (1 mg)</th>
<th>Mass (5 mg)</th>
<th>Mass (10 mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td>2.7743 mL</td>
<td>13.8715 mL</td>
<td>27.7431 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.5549 mL</td>
<td>2.7743 mL</td>
<td>5.5486 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.2774 mL</td>
<td>1.3872 mL</td>
<td>2.7743 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: ≥ 1 mg/mL (2.77 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1 mg/mL (2.77 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1 mg/mL (2.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
GPI-1046 is an immunophilin ligand without antibiotic action and attenuates ethanol intake in part through the upregulation of glutamate transporter 1 (GLT1) in PFC and NAc-core. GPI-1046 is an analog of FK506, which is an immunophilin ligand that has been shown neuroprotective effects in neurodegenerative disease models[1]. GPI-1046 readily crosses the blood-brain barrier and promotes the regeneration of dopamine (DA) cells in the CNS in association with functional recovery in rodent models[2]. GPI-1046 improves HIV-associated injury of peripheral nerves[3].
REFERENCES

