**Lorediplon**

Cat. No.: HY-19371
CAS No.: 917393-39-6
Molecular Formula: C₂₀H₁₅FN₄O₂S
Molecular Weight: 394.42
Target: GABA Receptor
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 (253.54 mM; Need ultrasonic)

<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>2.5354 mL</td>
<td>12.6768 mL</td>
<td>25.3537 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.5071 mL</td>
<td>2.5354 mL</td>
<td>5.0707 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.2535 mL</td>
<td>1.2677 mL</td>
<td>2.5354 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 (6.34 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (6.34 mM); Clear solution

**BIOLOGICAL ACTIVITY**

Description
Lorediplon is a novel non-benzodiazepine, hypnotic drug acting as a GABAA receptor modulator, differentially active at the alpha1-subunit, associated with promoting sleep.

Target: GABALorediplon is a drug for the treatment of insomnia, has been successfully completed with a best-in-class efficacy profile in terms of maintaining sleep and sleep quality, Lorediplon targets GABAA. [1] Lorediplon demonstrates a minimum of 10-fold and 6-fold increase in potency (respectively) in the spontaneous motor activation studies. At concentrations of 1.2mg/kg, Lorediplon demonstrates a 57%increased effect on Slow Wave Sleep (SWS), when compared with a placebo.[2]