Orexin 2 Receptor Agonist

**Cat. No.:** HY-19320  
**CAS No.:** 1796565-52-0  
**Molecular Formula:** C₃₂H₃₄N₄O₅S  
**Molecular Weight:** 586.7  
**Target:** Orexin Receptor (OX 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: ≥ 32 mg/mL (54.54 mM)

*“≥” means soluble, but saturation unknown.*

<table>
<thead>
<tr>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>1.7044 mL</td>
<td>8.5222 mL</td>
<td>17.0445 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.3409 mL</td>
<td>1.7044 mL</td>
<td>3.4089 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.1704 mL</td>
<td>0.8522 mL</td>
<td>1.7044 mL</td>
</tr>
</tbody>
</table>

Preparing Stock Solutions

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 (4.26 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.5 mg/mL (4.26 mM); Clear solution

**BIOLOGICAL ACTIVITY**

**Description**

Orexin 2 Receptor Agonist is a potent (EC50 on OX2R is 23 nM) and OX2R-selective (OX1R/OX2R EC50 ratio is 70) agonist.

IC50 value: 23 nM (EC50)

Target: Orexin 2 Receptor

Orexin 2 Receptor Agonist shows not only potency activity but also high selectivity for OX2R over OX1R. In CHO cells overexpressing hOX1R and HEK-293 cells overexpressing hOX2R, compound 26 displaced [125I]orexin-A in a concentration dependent manner: 26 bound to hOX2R and hOX1R with Ki of 0.14 and 0.77 μM, respectively.[1]
REFERENCES