CGP-42112

Cat. No.: HY-12405
CAS No.: 127060-75-7
Molecular Formula: C_{52}H_{69}N_{13}O_{11}
Molecular Weight: 1052.19
Target: Angiotensin Receptor
Pathway: GPCR/G Protein
Storage: Powder
-20°C 3 years
4°C 2 years
In solvent
-80°C 2 years
-20°C 1 year

SOLVENT & SOLUBILITY

<table>
<thead>
<tr>
<th>Solvent &amp; Solubility</th>
<th>In Vitro</th>
<th>DMSO: 100 mg/mL (95.04 mM; Need ultrasonic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing Stock Solutions</td>
<td>1 mg</td>
<td>5 mg</td>
</tr>
<tr>
<td>Solvent Concentration</td>
<td>Solvent Mass</td>
<td></td>
</tr>
<tr>
<td>1 mM</td>
<td>0.9504 mL</td>
<td>4.7520 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.1901 mL</td>
<td>0.9504 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.0950 mL</td>
<td>0.4752 mL</td>
</tr>
</tbody>
</table>

Please refer to the solubility information to select the appropriate solvent.

<table>
<thead>
<tr>
<th>Solvent &amp; Solubility</th>
<th>In Vivo</th>
<th>1. Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solubility: 2.5 mg/mL (2.38 mM); Clear solution; Need ultrasonic</td>
<td></td>
</tr>
<tr>
<td>2. Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline)</td>
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<td></td>
</tr>
<tr>
<td>Solubility: 2.5 mg/mL (2.38 mM); Clear solution; Need ultrasonic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil</td>
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<td></td>
</tr>
<tr>
<td>Solubility: 2.5 mg/mL (2.38 mM); Clear solution; Need ultrasonic</td>
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<td></td>
</tr>
</tbody>
</table>

BIOLOGICAL ACTIVITY

Description
CGP-42112 (CGP-42112A) is a potent Angiotensin-II subtype 2 receptor (AT2 R) agonist\(^1\).

In Vitro
CGP-42112 (≥1 nM) significantly inhibits cGMP production from the basal value. CGP-42112 (≥1 nM) significantly inhibits TH-enzyme activity from the basal value. These inhibitory effects of CGP-42112 on TH-enzyme activity and cGMP production are abolished by PD123319 (AT(2)-R antagonist) while CV-11974 (AT(1)-R antagonist) is ineffective\(^1\). \([125]\) CGP-42112 binds selectively to the AT2 angiotensin II receptor subtype. \([125]\) CGP-42112 binds with higher affinity in the brain than in the adrenal. beta-Mercaptoethanol enhanced \([125]\) CGP-42112 binding in the brain, but does not alter its binding in the adrenal \([2]\). \([125]\) CGP-42112 binds with high affinity (Kd = 0.07-0.3 nM, depending on the area studied). \([125]\) CGP-42112 binding is
selective for AT2 receptors, as determined by lack of competition with the AT1 ligand losartan, and competition by the AT2 ligands PD 123177 and unlabeled CGP-42112 and the non-selective peptides Ang II and angiotensin III (Ang III)[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

Intravenous infusions of CGP-42112 (0.1 and 1 mg kg-1 min-1) and PD 123319 (0.36 and 1 mg kg-1 min-1) shifted the upper limit of CBF autoregulation toward higher blood pressures without affecting baseline CBF[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**REFERENCES**


**Caution:** Product has not been fully validated for medical applications. For research use only.