LY341495

Cat. No.: HY-70059
CAS No.: 201943-63-7
Molecular Formula: C₂₀H₁₉NO₅
Molecular Weight: 353.37
Target: mGluR
Pathway: GPCR/G Protein
Storage:
- Powder: -20°C 3 years, 4°C 2 years
- In solvent:
  - -80°C: 6 months
  - -20°C: 1 month

SOLVENT & SOLUBILITY

<table>
<thead>
<tr>
<th></th>
<th>DMSO: 6 mg/mL (16.98 mM; Need ultrasonic)</th>
<th>H₂O: &lt; 0.1 mg/mL (insoluble)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In Vitro</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparing Stock Solutions</td>
<td>Concentration</td>
<td>1 mg</td>
</tr>
<tr>
<td>Solvent</td>
<td>Mass</td>
<td>mL</td>
</tr>
<tr>
<td>1 mM</td>
<td>2.8299 mL</td>
<td>14.1495 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5660 mL</td>
<td>2.8299 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2830 mL</td>
<td>1.4149 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 >> 90% corn oil
Solubility: ≥ 0.6 mg/mL (1.70 mM); Clear solution

BIOLOGICAL ACTIVITY

**Description**
LY341495 is a metabotropic glutamate receptor (mGluR) antagonist with IC₅₀s of 2.9 nM, 10 nM, 170 nM for mGluR-2, mGluR-3, mGluR-8, respectively.

**IC₅₀ & Target**
IC₅₀: 2.9 nM (mGluR-2, human), 10 nM (mGluR-3, human), 170 nM (mGluR-8, human)

**In Vivo**
LY341495 (0.3, 1, and 3 mg/kg, i.p.) displays a lower level of discrimination in rats[1]. LY341495 (3.0 mg/kg) decreases Dvl-2, pGSK-3α/β and β-catenin protein levels but Dvl-1, Dvl-3 and GSK-3α/β are unaffected in both the PFC and STR. LY341495 has the generally the opposite effect following acute and chronic administration compared to mGlu2/3 agonist, LY379268[2]. LY341495 (3 mg/kg, i.p., 2.5 h) -induced c-Fos expression is not altered in either KO brain. LY341495 is almost inactive in the central extended amygdala [central nucleus of the amygdala, lateral (CeL) and bed
nucleus of the stria terminalis, laterodorsal (BSTLD) in mGluR3-KO mice[3].

**PROTOCOL**

**Animal Administration** [1]

The rats are randomly divided into six experimental groups (10 rats per group): vehicle and 0.05, 0.1, 0.3, 1, and 3 mg/kg LY341495. The LY341495 doses are selected on the basis of results from previous published studies that evaluated the effects of this compound on cognition. The rats are subjected to a training session that consisted of two 2-min trials. The animals receive either vehicle or LY341495 immediately after T1. Using the 2-min trial duration, an ITI of 1 h is used because recognition memory is still intact in untreated control rats under these experimental conditions. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**REFERENCES**


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