**Ligustilide**

Cat. No.: HY-N0401  
CAS No.: 4431-01-0  
Molecular Formula: C₁₂H₁₄O₂  
Molecular Weight: 190.24  
Target: Autophagy; Autophagy  
Pathway: Autophagy  
Storage: -20°C, stored under nitrogen  
* The compound is unstable in solutions, freshly prepared is recommended.

**SOLVENT & SOLUBILITY**

**In Vitro**
- DMSO: 50 mg/mL (262.83 mM; Need ultrasonic)  
- H₂O: < 0.1 mg/mL (insoluble)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent</th>
<th>Mass 1 mg</th>
<th>Mass 5 mg</th>
<th>Mass 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>5.2565 mL</td>
<td>26.2826 mL</td>
<td>52.5652 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>1.0513 mL</td>
<td>5.2565 mL</td>
<td>10.5130 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.5257 mL</td>
<td>2.6283 mL</td>
<td>5.2565 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: ≥ 2.08 mg/mL (10.93 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (10.93 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.08 mg/mL (10.93 mM); Clear solution

**BIOLOGICAL ACTIVITY**

**Description**
Ligustilide is an effective constituent extracted from Angelica sinensis. IC₅₀ value: Target: In vitro: To investigate the neuroprotective of ligustilide (LIG) against glutamate-induced apoptosis of PC12 cells, cell viability were examined by MTT assay. Pretreatment with ligustilide (1, 5, 15 μmol · L⁻¹) significantly improved cell viability. The apoptosis rate in glutamate-induced PC12 cells was 13.39%, and decreased in the presence of ligustilide (1, 5, 15 μmol · L⁻¹) by 9.06%, 6.48%, 3.82%, separately. Extracellular accumulation of Ca²⁺ induced by glutamate were significantly reduced by ligustilide [1]. In vivo:
REFERENCES
