(-)-Huperzine A

**Cat. No.:** HY-17387  
**CAS No.:** 102518-79-6  
**Molecular Formula:** C₁₅H₁₈N₂O  
**Molecular Weight:** 242.32  
**Target:** AChE  
**Pathway:** 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 (412.68 mM)  
  * “≥” means soluble, but saturation unknown.*

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Mass (mg/mL)</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>4.1268 mL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 mM</td>
<td>0.8254 mL</td>
<td>20.6339 mL</td>
<td>41.2677 mL</td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td>0.4127 mL</td>
<td>2.0634 mL</td>
<td>4.1268 mL</td>
<td></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 (10.32 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.5 mg/mL (10.32 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.5 mg/mL (10.32 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**

(-)-Huperzine A (Huperzine A), an active Lycopodium alkaloid extracted from traditional Chinese herb, is a potent, selective and reversible acetylcholinesterase (AChE) inhibitor and has been widely used in China for the treatment of Alzheimer's disease (AD). IC50 value: Target: AChE(-)-Huperzine A exhibited protective effects against d-gal-induced hepatotoxicity and inflamm-aging by inhibiting AChE activity and via the activation of the cholinergic anti-inflammatory pathway. The (-)-Huperzine A mechanism might be involved in the inhibition of DAMPs-mediated NF-κ
B nuclear localization and activation. (-)-Huperzine A is a potential therapeutic agent for Alzheimer’s disease.

REFERENCES


