Lappaconitine

**Cat. No.:** HY-N0383  
**CAS No.:** 32854-75-4  
**Molecular Formula:** C₃₂H₄₄N₂O₈  
**Molecular Weight:** 584.7  
**Target:** P2X Receptor  
**Pathway:** Membrane Transporter/Ion Channel  
**Storage:** Please store the product under the recommended conditions in the COA.

### SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 31.25 mg/mL (53.45 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Mass Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
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<tr>
<td></td>
<td>1.7103 mL</td>
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<tr>
<td></td>
<td>8.5514 mL</td>
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<td>17.1028 mL</td>
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<td></td>
<td>10 mM</td>
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<tr>
<td></td>
<td>0.1710 mL</td>
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<tr>
<td></td>
<td>0.8551 mL</td>
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<td></td>
<td>1.7103 mL</td>
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</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 (3.56 mM); Clear solution
2. Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**  
   Solubility: ≥ 2.08 mg/mL (3.56 mM); Clear solution
3. Add each solvent one by one: **10% DMSO >> 90% corn oil**  
   Solubility: ≥ 2.08 mg/mL (3.56 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**

Lappaconitine, isolated from Aconitum sinomontanum Nakai, was characterized as analgesic principle. IC₅₀ value:

**Target:** In vitro: Lappaconitine was characterized as analgesic principle by our laboratory. The results suggest that lappaconitine can produce analgesia, possibly through a decrease in cellular calcium availability and PAG may be involved in the Ca²⁺ antagonistic effect on lappaconitine analgesia [1]. Changes in lappaconitine levels in blood, brain and spinal cord following subcutaneous (s.c.) injection were correlated with the analgesic activity at intervals up to 90 minutes after injection. The equianalgesic doses of lappaconitine (ED₅₀ by the s.c. route and additive ED₅₀ by the i.c.v. plus i.t. route) gave closely similar concentrations of the drug in brain and spinal cord. These results indicate that a simultaneous action of lappaconitine on supraspinal and spinal sites is likely to be
important for the analgesia produced by systemically administered lappaconitine [2].

REFERENCES


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