Lappaconitine hydrobromide

**Cat. No.:** HY-N0118

**CAS No.:** 97792-45-5

**Molecular Formula:** C$_{32}$H$_{45}$BrN$_2$O$_8$

**Molecular Weight:** 665.61

**Target:** Others

**Pathway:** Others

**Storage:**
- Powder: -20°C, 3 years; 4°C, 2 years; In solvent: -80°C, 6 months; -20°C, 1 month

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**SOLVENT & SOLUBILITY**

**In Vitro**

DMSO: 50 mg/mL (75.12 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>1.5024 mL</td>
<td>7.5119 mL</td>
<td>15.0238 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.3005 mL</td>
<td>1.5024 mL</td>
<td>3.0048 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.1502 mL</td>
<td>0.7512 mL</td>
<td>1.5024 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: ≥ 2.5 mg/mL (3.76 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.76 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.76 mM); Clear solution

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**BIOLOGICAL ACTIVITY**

**Description**

Lappaconitine hydrobromide, a diterpene alkaloid, is a drug for the treatment of cardiac arrhythmias. IC50 value: Target: A natural product for anti-cardiac arrhythmias. In vitro: Lappaconitine hydrobromide was found to exert an inhibitory effect on inward tetrodotoxin-sensitive sodium currents without changing their voltage dependence [1]. In vivo: The effect of Lappaconitine hydrobromide on aconitine-induced arrhythmias is due to modulation of genes encoding Na(+), K(+), Ca(2+)-channels, conducting ionic currents (I(Na), I(to), I(Ks), I(K1), I(CaT)), which are involved in the formation of different phases of the action potential [2]. Lappaconitine hydrobromide was found to be
beneficial both in ventricular and supraventricular premature beats. Oral allapinine usually showed its effect 40-60 minutes following its administration, its maximum action being 4-5 hours later, its duration was some 8 hours. The optimal dose of the drug amounted to 75 mg/day [3].

REFERENCES

