Product Name: Linopirdine dihydrochloride
Catalog No.: 1999  Batch No.: 2
CAS Number: 113168-57-3
IUPAC Name: 1,3-Dihydro-1-phenyl-3,3-bis(4-pyridinylmethyl)-2H-indol-2-one dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: \( \text{C}_{26}\text{H}_{21}\text{N}_3\text{O}.2\text{HCl}.\frac{1}{4}\text{H}_2\text{O} \)
   Batch Molecular Weight: 468.89
   Physical Appearance: White solid
   Solubility: water to 100 mM
   DMSO to 100 mM
   ethanol to 100 mM
   Storage: Desiccate at RT

2. ANALYTICAL DATA

   TLC: \( R_f = 0.33 \) (Dichloromethane:Methanol [95:5])
   Melting Point: Between 256 - 257°C
   HPLC: Shows 100% purity
   \(^1\text{H} \text{NMR}: \) Consistent with structure
   \(^{13}\text{C} \text{NMR}: \) Consistent with structure
   Microanalysis:
   
<table>
<thead>
<tr>
<th></th>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
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<td>66.6</td>
<td>5.05</td>
<td>8.96</td>
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<tr>
<td>Found</td>
<td>66.61</td>
<td>4.98</td>
<td>8.96</td>
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</table>
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Description:
Blocker of K_v7 (KCNQ) voltage-gated potassium channels; blocks K_v7.1 + 7.3 (KCNQ2 + 3) / M-currents (IC_50 = 4 - 7 μM) and K_v7.1 (KCNQ1) homomeric channels (IC_50 = 8.9 μM). Augments hippocampal ACh release and is a cognitive enhancer following oral administration in vivo.

Physical and Chemical Properties:
Batch Molecular Formula: C_{20}H_{21}N_{7}O_{2}.2HCl.1/4H_2O
Batch Molecular Weight: 468.89
Physical Appearance: White solid
Minimum Purity: >99%

Batch Molecular Structure:

Storage: Desiccate at RT

Solubility & Usage Info:
- water to 100 mM
- DMSO to 100 mM
- ethanol to 100 mM

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
- SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
- SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:
