Product Name: (-)-Nicotine ditartrate
Catalog No.: 3546
Batch No.: 6
CAS Number: 65-31-6
EC Number: 200-607-2
IUPAC Name: (S)(-)-1-Methyl-2-(3-pyridyl)pyrrolidine (+)-ditartrate salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $\text{C}_{10}\text{H}_{14}\text{N}_2\cdot \text{2C}_4\text{H}_6\text{O}_6\cdot \text{1¾H}_2\text{O}$
Batch Molecular Weight: 493.93
Physical Appearance: White solid
Solubility: water to 100 mM, DMSO to 75 mM
Storage: Desiccate at RT
Batch Molecular Structure:

![Batch Molecular Structure](image)

2. ANALYTICAL DATA

HPLC: Shows 100% purity
$^1$H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: $[\alpha]_D = +24.6$ (Concentration = 10, Solvent = Water)
Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>43.77</td>
<td>43.69</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>6.02</td>
<td>5.91</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>5.67</td>
<td>5.6</td>
</tr>
</tbody>
</table>
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Batch No.: 6
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Description:
Nicotinic acetylcholine receptor (nAChR) agonist (K<sub>i</sub> values are 1, > 1000, 4000 and 7130 nM at α4β2, α1β1δγ, rat α7 and human α7 respectively). Exhibits vasoconstrictive, hypertensive and prothrombotic activity in vivo.

Physical and Chemical Properties:
Batch Molecular Formula: C<sub>10</sub>H<sub>14</sub>N<sub>2</sub>.2C<sub>2</sub>H<sub>4</sub>O<sub>6</sub>.1¾H<sub>2</sub>O
Batch Molecular Weight: 493.93
Physical Appearance: White solid
Minimum Purity: >99%

Storage: Desiccate at RT

Solubility & Usage Info:
- Water to 100 mM
- DMSO to 75 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:
