Product Name: Nafadotride
Catalog No.: 1347  Batch No.: 2
CAS Number: 149649-22-9
IUPAC Name: N-[(1-Butyl-2-pyrrolidinyl)methyl]-4-cyano-1-methoxy-2-naphthalenecarboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: C_{22}H_{27}N_{3}O_{2}
   Batch Molecular Weight: 365.47
   Physical Appearance: White solid
   Solubility: 1eq. HCl to 100 mM
   Storage: Store at -20°C
   Batch Molecular Structure:

2. ANALYTICAL DATA

   TLC: \( R_f = 0.3 \) (Ethyl acetate:Methanol [4:1])
   Melting Point: Between 64 - 69°C(dec)
   HPLC: Shows 98.0% purity
   \(^1\)H NMR: Consistent with structure
   \(^{13}\)C NMR: Consistent with structure
   Microanalysis:
<table>
<thead>
<tr>
<th></th>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
</tr>
</thead>
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<td>Theoretical</td>
<td>72.3</td>
<td>7.45</td>
<td>11.49</td>
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<tr>
<td>Found</td>
<td>72.01</td>
<td>7.69</td>
<td>11.49</td>
</tr>
</tbody>
</table>
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Description:
Highly potent, competitive, preferential dopamine D₃ receptor antagonist. Kᵢ values are 0.52, 5, and 269 nM for human cloned D₃, D₂ and D₄ receptors respectively. Centrally active upon systemic administration.

Physical and Chemical Properties:
Batch Molecular Formula: C₂₂H₂₂N₃O₂
Batch Molecular Weight: 365.47
Physical Appearance: White solid
Minimum Purity: >98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:
1eq. HCl 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: