1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{13}\text{H}_{16}\text{N}_{2}\cdot\text{HCl}\cdot\frac{1}{4}\text{H}_{2}\text{O} \)

Batch Molecular Weight: 241.24

Physical Appearance: White solid

Solubility:
- water to 100 mM
- DMSO to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:

![Molecular Structure]

2. ANALYTICAL DATA

HPLC: Shows 100% purity

\(^1\text{H} \text{NMR:} \) Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>64.73</td>
<td>7.31</td>
<td>11.61</td>
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<tr>
<td>Found</td>
<td>64.58</td>
<td>7.17</td>
<td>11.67</td>
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</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Product Information

Product Name: Medetomidine hydrochloride
Catalog No.: 5160
Batch No.: 1

CAS Number: 86347-15-1
IUPAC Name: 4-[1-(2,3-Dimethylphenyl)ethyl]-1H-imidazole hydrochloride

Description:
Potent, highly selective $\alpha_2$-adrenoceptor agonist ($K_i$ values are 1.08 and 1750 nM for $\alpha_2$- and $\alpha_1$-adrenoceptors respectively). Displays greater selectivity over $\alpha_1$-adrenoceptors than clonidine and UK 14,304 (1620-, 220- and 300-fold respectively). Inhibits twitch response in electrically stimulated mouse vas deferens ($pD_2 = 9.0$). Active in vivo; displays hypotensive, bradycardic, sedative, anxiolytic, hypothermic and analgesic effects. Active Isomer also available.

Physical and Chemical Properties:
- Batch Molecular Formula: $C_{13}H_{16}N_2.HCl.\frac{1}{2}H_2O$
- Batch Molecular Weight: 241.24
- Physical Appearance: White solid
- Minimum Purity: >99%
- Storage: Desiccate at RT

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