1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{17}\text{H}_{16}\text{ClN}_{3}\text{O}_{3}.\frac{1}{2}\text{H}_{2}\text{O} \)

Batch Molecular Weight: 354.86

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM, ethanol to 10 mM

Storage: Store at +4°C

Batch Molecular Structure:

![Molecular Structure Diagram]

2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

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

Mass Spectrum: Consistent with structure

Microanalysis:

<table>
<thead>
<tr>
<th>Element</th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>57.54</td>
<td>57.4</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>4.83</td>
<td>4.96</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>11.84</td>
<td>11.84</td>
</tr>
</tbody>
</table>
Product Name: VU 10010  
Catalog No.: 3141  
Batch No.: 1

CAS Number: 633283-39-3  
IUPAC Name: 3-Amino-N-[(4-chlorophenyl)methyl]-4,6-dimethylthieno[2,3-b]pyridine-2-carboxamide

Description:
Selective allosteric potentiator of M₄ acetylcholine receptors (EC₅₀ values are 33 and 0.7 nM for ACh in the absence and presence of VU10010 respectively). Binds to an allosteric site on the receptor increasing affinity for ACh and coupling to G-proteins.

Physical and Chemical Properties:
Batch Molecular Formula: C₁₇H₁₉ClN₃OS.½H₂O  
Batch Molecular Weight: 354.86  
Physical Appearance: Yellow solid  
Minimum Purity: >99%

Storage: Store at +4°C

Solubility & Usage Info:
DMSO to 100 mM  
ethanol to 10 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: