1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** \(\text{C}_{23}\text{H}_{28}\text{ClN}_{3}\text{O}_{5}\text{S}\)

**Batch Molecular Weight:** 494

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at RT

2. ANALYTICAL DATA

**HPLC:** Shows 99.7% 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>C</td>
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<td>55.92</td>
</tr>
<tr>
<td>H</td>
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</tr>
<tr>
<td>N</td>
<td>8.51</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Product Name: Glibenclamide

CAS Number: 10238-21-8

**Description:**
ATP-dependent K⁺ channel (K₆, K ATP) and CFTR Cl⁻ channel blocker. Inhibits K₆ currents in the pancreas, causing an increase in intracellular Ca²⁺ and insulin secretion. Inhibits recombinant CFTR Cl⁻ channels with an IC₅₀ of 20 μM.

**Physical and Chemical Properties:**
- Batch Molecular Formula: C₂₃H₂₈ClN₃O₅S
- Batch Molecular Weight: 494
- Physical Appearance: White solid
- Minimum Purity: >99%

**Storage:** Store at RT

**Solubility & Usage Info:**
- DMSO to 100 mM
- Ethanol to 5 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:**