1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{17}\text{H}_{15}\text{N}_{3}\text{O}_{2}\cdot\text{HCl}\cdot\frac{1}{2}\text{H}_{2}\text{O} \)

Batch Molecular Weight: 375.25

Physical Appearance: Yellow solid

Solubility: DMSO to 50 mM

Water to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:

![Molecular Structure Image]

2. ANALYTICAL DATA

TLC: \( R_f = 0.42 \) (Dichloromethane: Methanol: Ammonia soln. [90:9:1])

HPLC: Shows 98.4% purity

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

Mass Spectrum: Consistent with structure

Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>54.41</td>
<td>54.29</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>4.83</td>
<td>4.64</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>11.2</td>
<td>11.18</td>
</tr>
</tbody>
</table>
**Product Name:** GYKI 52466 dihydrochloride  
**Catalog No.:** 1454  
**Batch No.:** 7

**CAS Number:** 102771-26-6  
**IUPAC Name:** 4-(8-Methyl-9H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl)-benzenamine dihydrochloride

**Description:**
Selective non-competitive AMPA receptor antagonist (IC_{50} values are 10-20, ~ 450 and >> 50 μM for AMPA-, kainate- and NMDA-induced responses respectively). Skeletal muscle relaxant and orally-active anticonvulsant. Has anti-proliferative effects in transformed cells. Also available as part of the AMPA Receptor Tocriset™. Also available as part of the Kainate Receptor Tocriset™.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C_{17}H_{15}N_{3}O_{2}.HCl.\frac{1}{2}H_{2}O  
- **Batch Molecular Weight:** 375.25  
- **Physical Appearance:** Yellow solid  
- **Minimum Purity:** >98%

**Batch Molecular Structure:**

![Molecular Structure](image)

**Storage:** Store at -20°C

**Solubility & Usage Info:**
- DMSO to 50 mM  
- Water 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:**
- Donevan and Rogawski (1993) GYKI 52466, a 2,3-benzodiazepine, is a highly selective, non-competitive antagonist of AMPA/kainate receptor responses. Neuron 10 51. PMID: 7678966.