1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** $\text{C}_{16}\text{H}_{15}\text{N}_{5}.2\text{HCl}.\text{H}_{2}\text{O}$
- **Batch Molecular Weight:** 368.27
- **Physical Appearance:** Yellow solid
- **Solubility:** DMSO to 100 mM, water to 10 mM with gentle warming
- **Storage:** Store at -20°C

2. ANALYTICAL DATA

- **HPLC:** Shows 97.4% purity at 228 nm
- **$^1$H NMR:** Consistent with structure
- **Mass Spectrum:** Consistent with structure
- **UV Spectrum:** Consistent with structure
- $\lambda_{\text{max}}$: 345 nm (MeOH)
- $\lambda_{\text{ex}}$: 346 nm (MeOH)
- $\lambda_{\text{em}}$: 463 nm (MeOH)

**Microanalysis:**

<table>
<thead>
<tr>
<th>Element</th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>52.18</td>
<td>51.47</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>5.2</td>
<td>5.13</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>19.02</td>
<td>18.55</td>
</tr>
<tr>
<td>Chlorine</td>
<td>19.25</td>
<td>18.43</td>
</tr>
</tbody>
</table>
**Product Name:** DAPI  
**Catalog No.:** 5748

**CAS Number:** 28718-90-3  
**IUPAC Name:** 2-[4-(Aminoiminomethyl)phenyl]-1H-Indole-6-carboximidamide hydrochloride

**Description:**
DAPI is a fluorescent DNA stain / dye. DAPI stain binds to AT-rich regions of DNA and fluorescence increases by approximately 20-fold when bound to double-stranded DNA. DAPI can be used in flow cytometry, DNA visualization and quantification in histochemistry/biochemistry, to assess apoptosis, and to visualize mouse embryos or fetal organs. DAPI stain can be used in fixed cells and is cell-permeable at high concentrations providing effective cell staining. It is reported to be more photostable than Hoechst 33342 (Cat. No. 5117). Emission/Excitation λ = 350/470 nm respectively.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C_{16}H_{12}N_{5}.2HCl.H_2O
- **Batch Molecular Weight:** 368.27
- **Physical Appearance:** Yellow solid
- **Minimum Purity:** ≥95%
- **Storage:** Store at -20°C. This product is packaged under an inert atmosphere. CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**DMSO to 100 mM**
**Water to 10 mM with gentle warming**

**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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply: 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:**