

**Product Name:** DAPI

**Catalog No.:** 5748

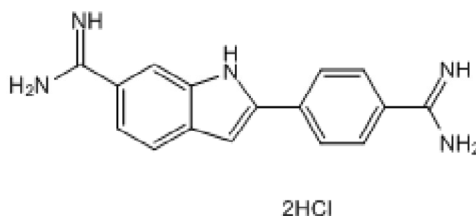
**Batch No.:** 2

CAS Number: 28718-90-3

IUPAC Name: 2-[4-(Aminoiminomethyl)phenyl]-1*H*-Indole-6-carboximidamide hydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>16</sub>H<sub>15</sub>N<sub>5</sub>·2HCl·1¼H<sub>2</sub>O  
**Batch Molecular Weight:** 372.77  
**Physical Appearance:** Yellow solid  
**Solubility:** DMSO to 100 mM  
 water to 10 mM with gentle warming  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 98.0% purity at 228 nm  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**UV Spectrum:** Consistent with structure  
**λ<sub>max</sub>:** 348 nm (MeOH)  
**λ<sub>ex</sub>:** 347 nm (MeOH)  
**λ<sub>em</sub>:** 461 nm (MeOH)

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	51.55	5.27	18.79	19.02
Found	51.69	4.9	18.71	18.77

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

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**Description:**

Key information: DAPI is a widely used blue-fluorescent DNA stain / dye. Membrane impermeant to live cells. For nuclear counterstain, fixed and live-cell staining (at high concentration). Used for: nuclear counterstain, fixed and live-cell staining (at high concentration), DNA visualization, chromosome staining, DNA staining in agarose gels, apoptosis analysis, mouse embryos or fetal organs visualization. Application: flow cytometry, confocal microscopy, immunofluorescence (IHC, ICC), and ISH. Properties and Photophysical Data: DAPI stain binds to AT-rich regions of DNA and fluorescence increases by approximately 20-fold when bound to double-stranded DNA. Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

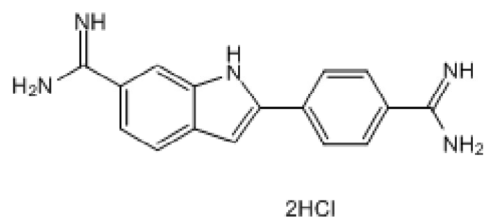
Batch Molecular Formula: C<sub>16</sub>H<sub>15</sub>N<sub>5</sub>·2HCl·1¼H<sub>2</sub>O

Batch Molecular Weight: 372.77

Physical Appearance: Yellow solid

**Minimum Purity:** ≥95%

**Batch Molecular Structure:**



**References:**

**Sandell *et al*** (2018) DAPI staining of whole-mount mouse embryos or fetal organs. Cold Spring Harb. Protoc. **10** prot094029. PMID: 30275072.

**Chazotte** (2011) Labeling nuclear DNA using DAPI. Cold Spring Harb. Protoc. **1** prot5556. PMID: 21205856.

**Kapuscinski** (1995) DAPI: a DNA-specific fluorescent probe. Biotech. Histochem. **70** 220. PMID: 858020.

**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.

**Solubility & Usage Info:**

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.

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