

Product Name: DAPI

Catalog No.: 5748

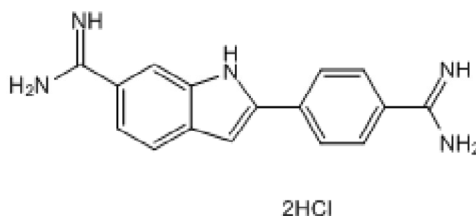
Batch No.: 3

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: C₁₆H₁₅N₅·2HCl·H₂O
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
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.4% purity at 228 nm
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
UV Spectrum: Consistent with structure
λ_{max}: 345 nm (MeOH)
λ_{ex}: 346 nm (MeOH)
λ_{em}: 463 nm (MeOH)
Microanalysis:

| | Carbon | Hydrogen | Nitrogen | Chlorine |
|-------------|--------|----------|----------|----------|
| Theoretical | 52.18 | 5.2 | 19.02 | 19.25 |
| Found | 51.47 | 5.13 | 18.55 | 18.43 |

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 doub... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

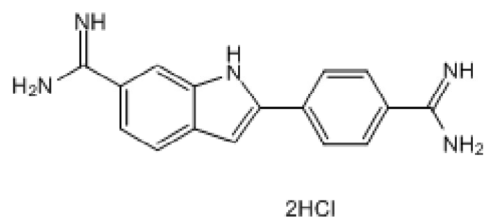
Batch Molecular Formula: C₁₆H₁₅N₅·2HCl·H₂O

Batch Molecular Weight: 368.27

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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