TOCRIS
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Print Date: Nov 5th 2021

Certificate of Analysis

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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: $C_{16}H_{15}N_5.2HCl.1¼H_2O$

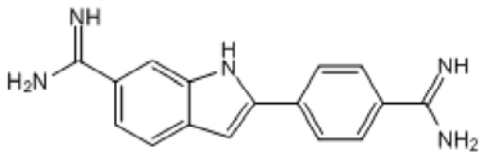
Batch Molecular Weight: 372.77

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM
water to 10 mM with gentle warming

Storage: Store at -20°C

Batch Molecular Structure:



2HCl

2. ANALYTICAL DATA

HPLC: Shows 98.0% purity at 228 nm

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 348 nm (MeOH)

λ_{ex}: 347 nm (MeOH)

λ_{em}: 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

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Product Information

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Description:

DAPI is a fluorescent DNA stain / dye. DAPI binds to AT-rich regions of DNA. DAPI can be used in flow cytometry and to assess apoptosis. DAPI is cell permeable at high concentrations providing effective cell staining. Em/Ex λ = 350/470 nm respectively.

Physical and Chemical Properties:

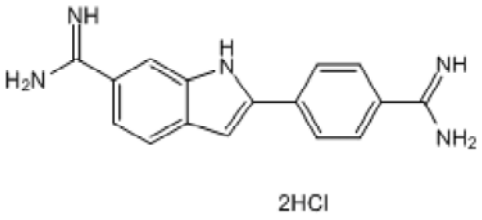
Batch Molecular Formula: $C_{16}H_{15}N_5.2HCl.1¼H_2O$

Batch Molecular Weight: 372.77

Physical Appearance: Yellow solid

Minimum Purity: ≥95%

Batch Molecular Structure:



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. 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:

Mildner *et al* (1978) Interaction of 4'-6-diamidino-2-phenylindole to nucleic acids, and its implication to their template activity in RNA-polymerase reaction of *E. coli* bacteria and of Friend-virus infected mouse spleen. Cancer Lett. ***4*** 89. PMID: 348301.

Russell *et al* (1975) A simple cytochemical technique for demonstration of DNA in cells infected with mycoplasmas and viruses. Nature ***253*** 461. PMID: 46112.