

PRODUCT INFORMATION



DAPI (hydrochloride)

Item No. 14285

CAS Registry No.: 28718-90-3

Formal Name: 2-[4-(aminoiminomethyl)phenyl]-
1H-indole-6-carboximidamide,
dihydrochloride

Synonyms: 4',6-Diamidino-2-phenylindole,
FxCycle Violet

MF: $C_{16}H_{15}N_5 \cdot 2HCl$

FW: 350.3

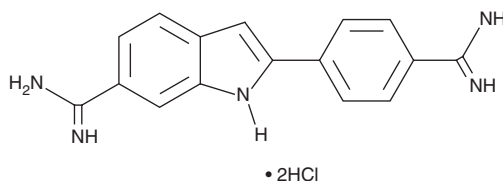
UV/Vis.: λ_{max} : 228, 264, 348 nm

Ex./Em. Max: 358/461 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

DAPI (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the DAPI (hydrochloride) in the solvent of choice. DAPI (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of DAPI (hydrochloride) in ethanol and DMF is approximately 0.2 mg/ml and approximately 3 mg/ml in DMSO.

Description

DAPI is a fluorescent probe which is commonly used to stain DNA and chromosomes for fluorescent microscopy and flow cytometry applications.^{1,2} It forms a fluorescent complex by attaching in the minor groove of A-T rich sequences of DNA.¹ DAPI is often used as a counterstain, as its ultraviolet (max 358 nm) excitation and blue (max 461 nm) emission wavelengths separate it nicely from many popular primary fluorophores. It can be used on either fixed or live cells, although its low permeability in live cells demands that higher concentrations be used.²

References

1. Kapuscinski, J. DAPI: A DNA-specific fluorescent probe. *Biotech. Histochem.* **70**(5), 220-233 (1995).
2. Zink, D., Sadoni, N., and Stelzer, E. Visualizing chromatin and chromosomes in living cells. *Methods* **29**(1), 42-50 (2003).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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