

Product Information

DAPI, also known as DAPI dihydrochloride (4',6-diamidino-2-phenylindole), is a commonly used blue fluorescent nucleic acid stain. It binds to the minor groove of AT-rich base pair sequences in double-stranded DNA, and its blue fluorescence is enhanced more than 20-fold upon binding to DNA. It is frequently used for nuclear staining of fixed cells and tissue sections, which can be observed under a fluorescence microscope after staining.

When DAPI binds to DNA, its maximum excitation wavelength is 358 nm, and its maximum emission wavelength is 461 nm. Although DAPI is not membrane-permeable to live cells under normal conditions, it can enter live cells at elevated concentrations. Upon excitation, DAPI emits blue fluorescence, allowing it to be combined with other fluorochromes such as green, orange, and red ones to achieve multiplex fluorescent labeling.

This product is a ready-to-use DAPI aqueous solution, which can be directly applied to nuclear immunofluorescence staining of fixed cells or tissue sections, as well as flow cytometry.

Product Name	DAPI Staining Solution (Ready-to-use)
Alternative Name	4',6-diamidino-2-phenylindole
Molecular Formula	$C_{16}H_{15}N_5 \cdot 2HCl$
Molecular Weight	350.25
CAS No.	28718-90-3

Package

5 mL/ 10 mL

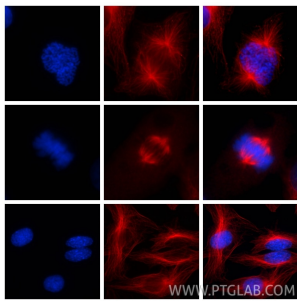
Storage

Store at 2–8°C away from light. Valid for one year from the date of receipt.

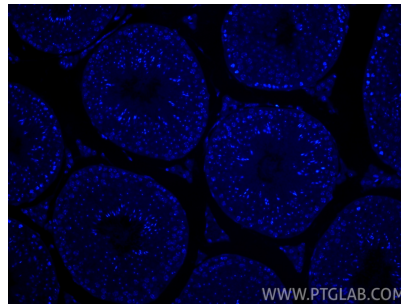
Notes

1. DAPI is irritating to humans. Proper protective measures must be taken during operation. Please wear a lab coat and disposable gloves to avoid direct skin contact and cross-contamination.
2. All fluorescent dyes are subject to fluorescence quenching. It is recommended that detection be completed on the same day after staining. Antifade reagents can be used to mitigate fluorescence quenching.
3. This product should be stored and used away from light, and repeated freeze-thaw cycles should be avoided.
4. This product is for research use only.

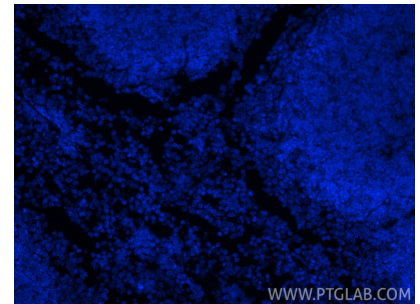
Validation Data



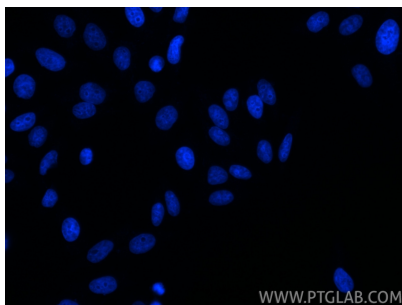
Immunofluorescent analysis of (4% PFA) fixed SKOV-3 cells using Alpha Tubulin antibody (66031-1-Ig, Clone: 1E4C11) at dilution of 1:1000 and CoraLite®594-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), Nucleus was labelled in blue with DAPI.



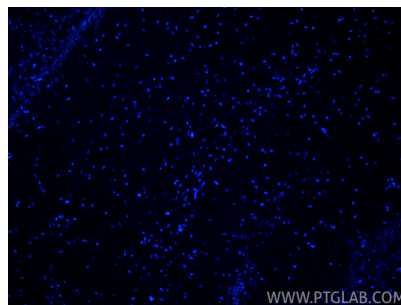
Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse testis tissue using DAPI. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



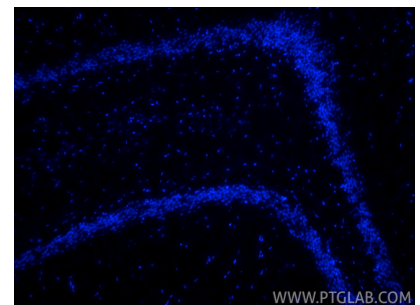
Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse spleen tissue using DAPI. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



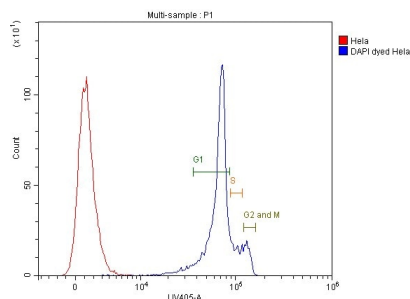
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using DAPI.



Immunofluorescent analysis of (4% PFA) fixed frozen OCT-embedded mouse brain tissue using DAPI (PR30021).



Immunofluorescent analysis of (4% PFA) fixed frozen OCT-embedded rat brain tissue using DAPI (PR30021).



2.5×10^6 HeLa cells were intracellularly stained with DAPI (PR30021, blue). Cells were fixed with 4% PFA.

For technical support and original validation data for this product please contact

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Proteintech Group brand and is not available
to purchase from any other manufacturer.