

DAPI Staining Solution (5ug/mL)

Cat #: A-CSH413

Size: 10mL, 50mL

Storage: -20°C (12 months)

Product Description

DAPI Staining Solution is a staining solution suitable for nuclear staining of common cells and tissue cells. DAPI, also known as 2-(4-Amidinophenyl)-6-indolecarbamide dihydrochloride or DAPI dihydrochloride, has a molecular formula of $C_{16}H_{15}N_5 \cdot 2HCl$, a molecular weight of 350.25, and it is a blue fluorescent dye that can penetrate cell membranes. When bound to double-stranded DNA, DAPI produces fluorescence more than 20 times stronger than its own fluorescence, and it has higher sensitivity than ethidium bromide (EB).

DAPI staining is commonly used for apoptosis detection in cells, which can be observed under a fluorescence microscope or analyzed by flow cytometry. DAPI is also used for general nuclear staining and double-stranded DNA staining in specific cases. DAPI has an excitation wavelength of 340nm and an emission wavelength of 488nm. After binding to double-stranded DNA, the excitation wavelength shifts to 364nm and the emission wavelength shifts to 454nm.

DAPI Staining Solution (5 μ g/mL) can be directly used for nuclear staining of fixed cells or tissues, or it can be diluted to the desired concentration according to specific experimental requirements. The recommended working concentration is generally 0.5-10 μ g/mL, and it is recommended for cells that are difficult to stain.

Usage

1. For cell or tissue samples, rinse off the fixative after fixation. If immunofluorescence staining is required, perform immunofluorescence staining first, and then proceed with DAPI staining after completing the previous steps. If no other staining is needed, proceed directly with DAPI staining. For adherent cells or tissue sections, add a small amount of

DAPI Staining Solution (5µg/mL) to cover the sample. For suspended cells, add at least 3 times the volume of DAPI Staining Solution (5µg/mL) to the sample, and mix well.

2. Leave at room temperature for 5-8 minutes.
3. Gently remove the DAPI Staining Solution (5µg/mL).
4. Wash 2-3 times with sterile PBS or physiological saline, each time for 3-5 minutes.
5. Observe directly under a fluorescence microscope or observe after mounting the slides.

Notes

1. Fluorescent dyes are prone to fading, so it is recommended to perform detection as soon as possible after staining.
2. To reduce fluorescence fading, you can use an anti-fade mounting medium.
3. Avoid repeated freezing and thawing, as it may lead to loss of effectiveness.
4. DAPI can be irritating to the human body, so please take appropriate precautions.
5. For your safety and health, please wear a lab coat and disposable gloves when handling.

Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.