DAPI Staining Solution (10ug/mL)

Cat #: A-CSH411

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 4',6-Diamidino-2-phenylindole dihydrochloride, has a molecular formula of C16H15N5·2HCl and a molecular weight of 350.25. It is a blue fluorescent dye that can penetrate cell membranes and, when bound to double-stranded DNA, produces fluorescence more than 20 times stronger than DAPI itself, with higher sensitivity than ethidium bromide (EB).

DAPI staining is commonly used for cell apoptosis detection, observed with a fluorescence microscope or analyzed using flow cytometry after staining. DAPI is also used for routine nuclear staining and double-stranded DNA staining in specific circumstances. DAPI has an excitation wavelength of 340nm and an emission wavelength of 488nm. When bound to double-stranded DNA, DAPI has an excitation wavelength of 364nm and an emission wavelength of 454nm. DAPI Staining Solution (10μg/mL) can be directly used for nuclear staining of fixed cells or tissues, or diluted to the desired concentration according to specific experimental requirements. The recommended working concentration is generally 0.5-10μg/mL, and it is recommended for staining difficult cells.

Usage

1. For cell or tissue samples, rinse off the fixative after fixation. If immunofluorescence staining is required, perform immunofluorescence staining first, then proceed with DAPI staining after completion. 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 (10μg/mL) to cover the sample. For suspension cells, add at least three times the volume of the sample to be stained with DAPI Staining Solution (10μg/mL) and mix thoroughly.

2. Leave at room temperature for 5-8 minutes.

3. Gently remove the DAPI Staining Solution (10μg/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 sealing the slide.

Notes

1. The concentration of DAPI Staining Solution (10μg/mL) is suitable for staining difficult cells.

2. Fluorescent dyes are prone to fading, so it is recommended to perform detection as soon as possible after staining.

3. To reduce fluorescence fading, you can use an anti-fade mounting medium.

4. Avoid repeated freezing and thawing, as it may lead to loss of effectiveness.

5. DAPI can be irritating to the human body, so please take appropriate precautions.

6. 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.