

## 1mM DAPI staining solution

### Packing specification

**Product Numbers:** AI-10, AI-50; **Specification:** 10ml, 50ml

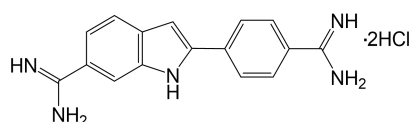
**Storage conditions:** Store at -20 °C away from light, valid for one year. .

CAS #: 28718-90-3

Chinese name: 4',6-二氨基-2-苯基吲哚二氢氯化物

English name: 4',6-Diamidino-2-phenylindole, dihydrochloride

Structural formula:



Molecular formula: C<sub>16</sub>H<sub>17</sub>Cl<sub>2</sub>N<sub>5</sub>

Molecular weight: 350.25

#### nature:

1. Appearance: yellow liquid
2. Purity: ≥95% (HPLC)
3. Product description:

DAPI is a nuclear staining reagent that stains DNA. It emits blue fluorescence after intercalating double-stranded DNA. DAPI is often used for the detection of apoptosis, after staining, it is observed with a fluorescence microscope or flow cytometry. DAPI is also commonly used for general nuclear staining and double-stranded DNA staining under certain circumstances. Although DAPI cannot pass through the living cell membrane, it can penetrate the disturbed cell membrane to stain the nucleus. DAPI has a high tolerance to photobleaching and can be used to detect yeast mitochondrial DNA, chloroplast DNA, viral DNA, microplasm DNA and chromosomal DNA. The excitation and emission wavelengths of the DAPI-DNA complex are 360nm and 460nm, respectively.

The DAPI staining solution can be directly used to stain the nuclei of fixed cells or tissues.

#### 4. How to use

- (1) Add an appropriate amount of 1mM DAPI aqueous solution to PBS \* to prepare a 10-50 μM DAPI solution.  
\* The following preparation method of PBS is recommended: NaCl: 8.00g KCl: 0.20g Na<sub>2</sub>HPO<sub>4</sub>·12H<sub>2</sub>O: 2.9g KH<sub>2</sub>PO<sub>4</sub>: 0.2g above reagents are dissolved in 1000 ml of pure water.
- (2) Add 1/10 of the medium volume of DAPI solution to the cell culture medium. (You can also use 1/10 concentration of DAPI buffer instead of medium.)
- (3) Incubate the cells at 37 ° C for 10-20 minutes.
- (4) Wash cells twice with PBS or appropriate buffer.
- (5) Observe the cells with a fluorescence microscope with filters with an excitation wavelength of 360 nm and an emission wavelength of 460 nm.

Storage conditions: Store at -20 °C in dark place, valid for one year.

#### Precautions:

DAPI is irritating to human body, please pay attention to proper protection.

Fluorescent dyes have the problem of quenching, it is recommended to complete the test as soon as possible after staining.

To slow down fluorescence quenching, anti-fluorescence quenching mounting solution can be used.

For your safety and health, please wear lab coat and disposable gloves.

**For scientific research use only.**