ab228549

DAPI Staining Solution

For labeling DNA in fluorescence microscopy.

This product is for research use only and is not intended for diagnostic use.
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1. Overview

DAPI Staining Solution (ab228549) is a fluorescent stain for labeling DNA in fluorescence microscopy. Since DAPI passes through an intact cell membrane, it can be used to stain live cells and fixed cells.

![Figure 1. Chemical structure of DAPI.](image1)

**Figure 1.** Chemical structure of DAPI.

![Figure 2. Spectrum of DAPI.](image2)

**Figure 2.** Spectrum of DAPI.
1. Pellet cells by centrifugation
2. Resuspend cells in buffered salt solutions or media
3. Add DAPI stain
4. Incubate the sample for 15 to 60 minutes
2. Materials Supplied and Storage

Store kit at -20°C and desiccated in the dark immediately on receipt and check below for storage for individual components. Kit can be stored for 6 months from receipt, if components have not been reconstituted.

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Storage temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAPI [4,6-Diamidino-2-phenylindole, dihydrochloride] (10 mM solution in water)</td>
<td>2 mL</td>
<td>-20°C</td>
</tr>
</tbody>
</table>
3. Materials Required, Not Supplied

These materials are not included in the kit, but will be required to successfully perform this assay:

- Buffered salt solutions or media, with optimal dye binding at pH 7.4.
4. General guidelines, precautions, and troubleshooting

Please observe safe laboratory practice and consult the safety datasheet.

For general guidelines, precautions, limitations on the use of our assay kits and general assay troubleshooting tips, particularly for first time users, please consult our guide: www.abcam.com/assaykitguidelines

For typical data produced using the assay, please see the assay kit datasheet on our website.
5. Reagent Preparation

Briefly centrifuge small vials at low speed prior to opening.

5.1 DAPI [4,6-Diamidino-2-phenylindole, dihydrochloride]
(10 mM solution in water)

Ready to use as supplied.
6. Assay Procedure

- Equilibrate all materials and prepared reagents to room temperature just prior to use and gently agitate.
- The following procedure can be adapted for most cell types. Growth medium, cell density, the presence of other cell types and other factors may influence staining.
- Residual detergent on glassware may also affect real or apparent staining of many organisms, causing brightly stained material to appear in solutions with or without cells present.

DAPI staining is normally performed after all other staining.

1. Pellet cells by centrifugation and resuspend the cells in buffered salt solutions or media, with optimal dye binding at pH 7.4.
2. Adherent cells in culture may be stained in situ on cover slips or in the cell culture wells.
3. Add DAPI stain using the concentrations between 0.5 and 5 µM and incubate it for 15 to 60 minutes as a guide.
4. In initial experiments, it may be best to try several dye concentrations over the entire suggested range to determine the concentration that yields optimal staining.
7. FAQs / Troubleshooting

General troubleshooting points can be found at www.abcam.com/assaykitguidelines.
8. Notes