Eosin Staining Solution (Alcohol-Soluble, 0.5%)

E1507828

Storage: Room Temperature. Store in the dark.

Introduction:

Eosin, also known as tetrabromofluorescein, is a type of xanthene dye among synthetic dyes. It appears as a peach-red or pink powder. The molecular formula of eosin (alcohol-soluble) is $C_{20}H_8Br_4O_5$, with a molecular weight of 647.9. Eosin is most suitable for being used in combination with hematoxylin for staining to display the morphological structure of normal or pathological tissues.

The Eosin Staining Solution (alcohol-soluble, 0.5%) adopts a unique preservative, featuring simple operation and no use of toxic reagents such as mercury and methanol. It is often used for staining tissue sections or cultured cells, and after staining, the cytoplasm shows pink or red color. This reagent is for research use only and not intended for clinical diagnosis or other purposes.

Materials to Be Prepared by Users:

A series of ethanol solutions; 4% paraformaldehyde; Xylene or environment-friendly wax-immersing, dewaxing and clearing solution.

Operating Steps (for Reference Only):

1. Sample Processing:

a) For Paraffin Sections:

① Dewax in xylene or dewaxing solution (Cat. No.: D292661) for 5-15 minutes.

② Replace with fresh xylene or dewaxing solution (Cat. No: D292661) and dewax again for 5-15 minutes.

③ Immerse in absolute ethanol for 5 minutes.

④ Immerse in 90% ethanol for 2 minutes.

⑤ Immerse in 70% ethanol for 2 minutes.

⑥ Immerse in distilled water for 2 minutes.

b) For Frozen Sections:

Immerse in distilled water for 2 minutes.

c) For Cultured Cells:

① Fix with 4% paraformaldehyde for more than 10 minutes.

② Rinse with distilled water for 2 minutes.

③ Replace with fresh distilled water and rinse again for 2 minutes.

2. Eosin Staining:

For the samples processed as above, stain with the Eosin Staining Solution for 0.5-5 minutes (adjust the time according to staining results and requirements).

If direct observation is needed, rinse with 70% ethanol twice.

If dehydration, clearing and mounting are required, proceed with the subsequent steps. After rinsing with 70% ethanol, dehydration, clearing and mounting can still be carried out in accordance with the subsequent steps.

Note: If used for counterstaining after staining such as immunohistochemistry, refer to the above steps to perform eosin staining after other staining procedures are completed.

3. **Dehydration, Clearing, Mounting or Other Staining Procedures**:

a) Dehydration, Clearing and Mounting:

① Dehydrate in 95% ethanol for 2 minutes.

② Replace with fresh 95% ethanol and dehydrate again for 2 minutes.

③ Dehydrate in absolute ethanol for 2 minutes.

④ Replace with fresh absolute ethanol and dehydrate again for 2 minutes.

⑤ Clear in xylene or dewaxing solution (Cat. No: D292661) for 5 minutes.

⑥ Replace with fresh xylene or dewaxing solution (Cat. No.: D292661) and clear again for 5 minutes.

⑦ Mount the section with neutral balsam or other mounting media.

⑧ Observe under a microscope; the cytoplasm should appear pink or red.

b) Other Staining Procedures:

① If immunofluorescence staining or staining with fluorescent dyes such as Hoechst is to be performed, after staining with the Eosin Staining Solution: rinse with 70% ethanol twice, 2 minutes each time.

② Immerse in a solution suitable for immunostaining or fluorescent dye staining (such as PBS, normal saline, TBS or TBST) for 5 minutes.

③ Perform immunofluorescence staining or staining with other fluorescent dyes.

Precautions:

1. If dehydration, clearing and mounting are required, users need to prepare xylene or dewaxing solution (Cat. No.: D292661), neutral balsam or other mounting media by themselves.
2. For your safety and health, please wear a lab coat and disposable gloves during operation.
3. Please use the reagent as soon as possible after opening to avoid affecting the subsequent experimental results.