Eosin Y Staining Kit, Aqueous

Catalog No.: RA20092

Basic Information

Product name	Eosin Y Staining Kit, Aqueous
Sizes	500 mL
Storage	RT
Shipping	RT
Validity	12 months

Product Introduction

Eosin Y, also known as eosin, is a synthetic xanthene dye, appearing as a pink or rose-colored powder. Its molecular formula is $C_{20}H_6O_5Br_4Na_2$, with a molecular weight of 691.86. Eosin Y is commonly used in combination with hematoxylin for staining normal and pathological tissue structures. The aqueous form of Eosin Y contains a quinoid benzene ring chromophore and two acidic auxochrome groups (R–COONa and R–ONa) that form sodium salts. In aqueous solution, this acid dye dissociates into a negatively charged colored ion ($R–COO^-$, $R–O^-$) and a positively charged sodium ion (Na^+). During staining, the negatively charged colored portion of Eosin Y binds via ionic interactions to positively charged components in the tissue, resulting in visible coloration.

EnkiLife's aqueous Eosin Y staining solution is prepared using high-quality imported raw materials and a proprietary preservative. The formulation is user-friendly and avoids the use of toxic reagents such as mercury or methanol. This product is suitable for staining tissue sections and cultured cells, and is typically used in conjunction with hematoxylin. It can also be applied following immunofluorescence or immunohistochemical staining—either as a counterstain after immunostaining, or prior to additional fluorescent labeling. The solution can be reused until staining efficacy declines. After staining, the cytoplasm appears pink to red.

Perimental procedure

1. Sample Preparation

a) Paraffin-embedded sections:

Deparaffinize using xylene or a xylene substitute.

Rehydrate through a graded ethanol series to distilled water.

b) Frozen sections:

Rinse with distilled water for 2 min.

c) Cultured cells:
Fix with 4% paraformaldehyde for at least 10 min.
Rinse with distilled water for 2 min.
Replace with fresh distilled water and rinse again for 2 min.
2. Eosin Staining
Apply Eosin Y staining solution to the prepared samples for 0.5–5 min, depending on the desired staining intensity.
If direct observation is intended, rinse twice with 70% ethanol. If proceeding with dehydration, clearing, and mounting, rinse with 70% ethanol and continue with the following steps.
Note: For counterstaining after immunohistochemistry or other staining procedures, perform the eosin staining after completion of the primary staining protocol.
3. Dehydration, Clearing, and Mounting (Optional)
a) Dehydration and Clearing:
95% ethanol: 2 min.
Fresh 95% ethanol: 2 min.
Absolute ethanol: 2 min.
Fresh absolute ethanol: 2 min.
Xylene or xylene substitute: 5 min.
Fresh xylene or substitute: 5 min.
Mount with neutral balsam or other appropriate mounting medium.
Cytoplasm should appear pink to red under the microscope.
b) Subsequent Staining (Optional)
If proceeding with immunofluorescence or other fluorescent dyes (e.g., Hoechst):
After eosin staining, rinse twice with 70% ethanol, 2 min each.
Soak in PBS, saline, TBS, or TBST for 5 min.
Proceed with immunofluorescence or other fluorescent staining protocols.

Notes

1. For dehydration, clearing, and mounting, users must prepare xylene or xylene substitute and mounting medium (e.g., neutral balsam).
2. For paraffin sections, users must prepare 90% ethanol, absolute ethanol, and xylene or substitute.
3. Wear appropriate personal protective equipment (lab coat and gloves) during operation.
4. Use the reagent promptly after opening to ensure optimal performance.

This product is for research use only!