Rapid Ultra-Sensitive IHC Kit (pH 9.0)

Catalog No.: PA10021

Basic Information

Product name	Rapid Ultra-Sensitive IHC Kit (pH 9.0)
Sizes	3 mL, 6 mL, 10 mL
Storage	2-8 ℃
Shipping	Shipped with ice pack
Validity	12 months

Product Introduction

Developed by EnkiLife, the Rapid Ultra-Sensitive IHC Kit features an innovative One-Step Dewaxing and Antigen Retrieval Solution specifically designed for paraffin-embedded tissue sections. This revolutionary product streamlines the traditional workflow by efficiently integrating the tedious steps of dewaxing, graded ethanol rehydration, and antigen retrieval into a single, unified process. This breakthrough not only dramatically reduces turnaround time but also significantly enhances staining consistency and reproducibility.

The One-Step Dewaxing/Antigen Retrieval Solution utilizes an environmentally friendly and safe formulation, free of xylene and other volatile toxic solvents. The procedure eliminates the need for a fume hood, protecting laboratory personnel while minimizing environmental impact.

The kit provides a comprehensive, all-in-one solution comprising endogenous peroxidase blocker, antibody diluent, high-sensitivity Polymer-HRP secondary antibody, DAB chromogen, and hematoxylin. With stable and reliable performance, it offers safer and more efficient experimental support for diagnostic pathology and life science research.

Product Components

Components	3 mL	6 mL	10 mL
Reagent 1: One-step Dewaxing/Antigen Retrieval Buffer (20×, pH 9.0)	90 mL	180 mL	300 mL
Reagent 2: Endogenous Peroxidase Blocking Reagent	3 mL	6 mL	10 mL
Reagent 3: Antibody Diluent for IHC	3 mL	6 mL	10 mL
Reagent 4: Polymer-HRP-labeled Goat Anti-Mouse/Rabbit IgG	3 mL	6 mL	10 mL

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Reagent 5: DAB concentrate(50X)	60 µL	120 µL	200 µL
Reagent 6: DAB Dilution Buffer	3 mL	6 mL	10 mL
Reagent 7: Hematoxylin Stain Solution	3 mL	6 mL	10 mL

Working Solution Preparation

The dewaxing/antigen retrieval buffer (20×, pH 9.0) is a 20× concentrate. Dilute with deionized water to prepare a 1× working solution before use.

Example: Combine 30 mL of concentrate with deionized water to a final volume of 600 mL.

Note: Prepare the 1× working solution immediately before use.

Experimental procedure

1. Dewaxing and Antigen Retrieval: Place the 1×dewaxing/antigen retrieval buffer (pH 9.0) (Reagent 1) working solution into the retrieval chamber. Heat the solution to boiling using a heating device. Adjust the heating device to medium-low heat to maintain a gentle boiling state. Once the state stabilizes, immerse the sections in the 1×dewaxing/antigen retrieval buffer (pH 9.0) working solution, ensuring that the tissue on the sections is completely submerged. Continue heating over medium-low heat for 15–30 minutes (maintaining a gentle boiling state). During this process, prevent the tissue from drying out. Remove the retrieval chamber from the heat source and allow it to cool naturally to room temperature. (Note: Directly placing sections into boiling solution may cause the deparaffinization/retrieval solution to overflow. When performing retrieval, heat the solution until boiling, then reduce to medium-low heat. Only place the sections into the solution once the gentle boiling state has stabilized.)
2. Washing: Remove the slides and rinse thoroughly with deionized water to ensure complete removal of the 1× Dewaxing/Antigen Retrieval Buffer (pH 9.0) working solution.
3. Endogenous Enzyme Blocking: Apply Endogenous Peroxidase Blocking Reagent (Reagent 2) dropwise onto the tissue sections and incubate at room temperature for 15–20 min.
4. Washing: Wash the slides with PBST for 3–5 min each time, repeat 3 times.
5. Primary Antibody Preparation: Select an appropriate dilution ratio and dilute the primary antibody using Antibody Diluent (Reagent 3).
6. Primary Antibody Incubation: Apply the diluted primary antibody working solution evenly to cover the tissue sections. Incubate overnight at 4°C or for 1 hour at 37°C.
7. Washing: Wash the slides with PBST for 3–5 min each time, repeat 3 times.
8. Secondary Antibody Incubation: Apply Polymer-HRP-conjugated Goat Anti-Mouse/Rabbit IgG

(Reagent 4) dropwise onto the tissue sections and incubate at room temperature for 30–60 min.
9. Washing: Wash the slides with PBST for 3–5 min each time, repeat 3 times.
10. Chromogenic Reaction: Apply DAB chromogenic substrate dropwise onto the sections (dilute 1:50, e.g., mix 1 μL DAB Concentrate (centrifuge Reagent 5 before use) with 49 μL DAB Diluent (Reagent 6); prepare fresh and use within 30 min). Monitor color development under a microscope and terminate the reaction at the appropriate time.
11. Washing: Stop the reaction with buffer or distilled water. Rinse the slides 1–2 times, 2–3 min each time.
12. Counterstaining and Blueing: Apply Hematoxylin Staining Solution (Reagent 7) dropwise onto the tissue sections and incubate at room temperature for 2–5 min. Blue in alkaline solution (such as PBS, TBS, etc.).
13. Mounting: Mount the slides using mounting medium (e.g., neutral balsam).
14. Microscopy: Observe the results under an optical microscope.

Notes

1. Store at 2–8 °C; do not freeze. Use within 6 months after opening.
2. Keep tissue moist throughout the procedure; drying will cause non-specific staining.
3. During heating, use only low–medium heat to maintain boiling; high heat may cause buffer splashing.
4. Optimize primary antibody concentration and incubation time according to experimental requirements.
5. DAB concentrate is hazardous to human health. Handle with care and ensure adequate personal protection to prevent direct contact or inhalation.
6. Wear lab coat, disposable gloves, and mask for safety and health.
7. For research use only; not for diagnostic or clinical procedures.

This product is for research use only!