**Papanicolaou (Pap) Staining Kit**

**Catalog No.: RA20133**

## Basic Information

| | |
|---|---|
| **Product name** | Papanicolaou (Pap) Staining Kit |
| **Sizes** | 100 mL, 250 mL, 500 mL |
| **Storage** | RT |
| **Shipping** | RT |
| **Validity** | 12 months |

## Product Introduction

Cytological routine staining commonly uses the Papanicolaou (Pap) method. Initially, Papanicolaou staining was only used to assess vaginal epithelial estrogen levels and detect pathogens such as Candida and Trichomonas in the reproductive tract. When Orange G6 is used in combination with EA36 or EA50, the cytoplasm can be stained in distinct colors such as green, blue, and pink. Currently, most laboratories use ready-made staining solutions, so the optimal conditions for each modified solution should be noted. The final cytoplasmic staining should be transparent and visible, and nuclear chromatin should be easily distinguishable. The improved Papanicolaou staining solution contains multiple ions and exhibits polychromatic staining properties. After staining, the cytoplasm appears bright and transparent, and the nuclear membrane, nucleoli, and chromatin structure are clearly visible. The nuclear staining solution is mainly Harris hematoxylin, and the cytoplasmic staining solutions are mainly EA36 and EA50. Papanicolaou staining is used for exfoliated cell specimens: the nucleus appears blue or black, and the cytoplasm of keratinized squamous cells appears pink or orange-red.

EnkiLife Papanicolaou staining solution uses EA50 for cytoplasmic staining and a non-toxic modified hematoxylin solution for nuclear staining. It is suitable not only for gynecological cytology smears such as cervical cancer and precancerous lesion screening, but also for non-gynecological samples such as pleural effusion, ascites, and sputum.

## Product Components

| Components | 4x 100mL | 4x 250mL | 4x 500mL |
|---|---|---|---|
| Reagent (A): Hematoxylin Staining Solution | 100 mL | 250 mL | 500 mL |

**Papanicolaou (Pap) Staining Kit**

**Catalog No.: RA20133**

| | | | |
|---|---|---|---|
| Reagent (B): Acidic Ethanol Differentiation Solution | 100 mL | 250 mL | 500 mL |
| Reagent (C): Orange G6 Staining Solution | 100 mL | 250 mL | 500 mL |
| Reagent (D): EA50 Staining Solution | 100 mL | 250 mL | 500 mL |

## Materials Required (Not Supplied)

1. Fixative (e.g., 95% ethanol–glacial acetic acid fixative), graded ethanol, bluing reagent.
2. Microscope, xylene or eco-friendly dewaxing and clearing solution, neutral balsam.

## Experimental procedure

1. Fix cell smears with 95% ethanol for 15 min.
2. Immerse in 95% ethanol for 30–60 s.
3. Immerse in 80% ethanol for 30–60 s.
4. Immerse in 70% ethanol for 30–60 s.
5. Rinse with distilled water or tap water for 1–2 min.
6. Stain with hematoxylin staining solution for 3–5 min.
7. Rinse with tap water for 1–2 min.
8. Differentiate with acidic ethanol differentiation solution for approximately 5–10 s.
9. Rinse with water or treat with bluing reagent for 5–10 min or 10–30 s respectively.
10. Dehydrate with 70% ethanol for 30–60 s.
11. Dehydrate with 80% ethanol for 30–60 s.
12. Dehydrate with 95% ethanol for 30–60 s each.
13. Stain with Orange G6 staining solution for 1–2 min.
14. Rinse with 95% ethanol (I) and (II) for 30–60 s each.
15. Stain with EA50 staining solution for 3–5 min.
16. Dehydrate with absolute ethanol (I) and (II) for 1–2 min each.
17. Clear with xylene or clearing solution and mount with neutral resin.

## Staining Results

| Component | Color |
|---|---|
| Nucleus | Blue-violet or black |

**Papanicolaou (Pap) Staining Kit**

**Catalog No.: RA20133**

| | |
|---|---|
| Cytoplasm of non-keratinized cells | Light blue or light green |
| Cytoplasm of keratinized cells | Pink or orange-red |

## Notes

1. This reagent has been filtered. If staining results are unsatisfactory, filter again. Replace staining solution regularly.
2. For safety and health, wear lab coats and disposable gloves during operation.

**This product is for research use only!**