

DESCRIPTION

George Papanicolaou, after whom the famous Papanicolaou (Pap) smear and Pap stain was named, was one of the initial pioneers who drew the attention to the science of the ability to make a diagnosis looking at slides with a smear of cells in the period between 1917 and 1928.¹ Rates of cancer death due to cervical cancer dropped tremendously after the 1960s when the Papanicolaou smears screening programs had started.²⁻⁸

Papanicolaou stain is superior in demonstrating the nuclear details, which are the most important and specific in making the diagnosis of malignancy. Whereas, the routine Hematoxylin and Eosin (H&E) stain gives the pathologist an advantage of evaluating tissue-like stains from cell blocks, similar to routine biopsies. Cytological specimens are taken from different sites as a follow up for different diseases and for determination of different prognostic factors in neoplasia diagnosis.⁹

OG-6 and EA are the two cytoplasmic counterstain solutions that are used sequentially in the Papanicolaou staining method for clinical cytology.¹⁰⁻¹²

Gill 1X is used for routine cytology staining to accompany EA-36 or EA-50 (for gynecological), or EA-65 (for non-gynecological) and OG-6. This single strength hematoxylin formulation optimally stains gynecological and non-gynecological specimens alike. Gill hematoxylin is a general purpose progressive type nuclear stain and presented in 3 strengths, Gill 1X, 2X, and 3X. Cell blocks are usually stained using Gill 1X Hematoxylin accompanied with Eosin to demonstrate the routine H&E stain for cytology analysis. The Gill 2X can be used when a darker nuclear stain is desired.

PROCEDURE

1. Fix cytological smears in 95% Ethanol: 15 minutes
2. Rinse gently in DI water: 30 seconds
3. Stain in hematoxylin solution, Gill 1X or Gill 2X: 1½ to 3 minutes
4. Rinse gently in DI water: 1 minute
5. Bluing Reagent: 15 to 60 seconds
6. Rinse gently in DI water: 30 seconds
7. Ethanol Solution, 95%: 10 dips
8. Papanicolaou Stain OG-6: 1 to 2 minutes
9. Ethanol Solution, 95%: 10 dips
10. Papanicolaou Stain EA 50 or Papanicolaou Stain EA 65 EA: 2½ to 3 minutes
Note: Use EA 50 for gynecological samples; and EA 65 for non-gynecological samples. (the number indicates the proportion of the dyes)
11. Ethanol Solution, 95%, two changes: 10 dips each
12. Ethanol Solution, 100%, two changes: 1 minute each
13. Xylene or Xylene substitute, two changes: 1 minutes each
14. Coverslip using Acrylic Mounting Medium, and examine under microscope

REFERENCES

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ORDERING INFORMATION

Cat. #	Description	Size
3315	Deionized Water	32oz, 1 Gallon, 5 Gallon, 30 Gallon
7012	Hematoxylin, Gill 1X	32oz, 1 Gallon
7013	Hematoxylin, Gill 2X	32oz, 1 Gallon
3356	Bluing Reagent	32oz, 1 Gallon
7042	Pap Stain, OG-6	32oz, 1 Gallon, 2.5 Gallon
7026	Pap Stain, EA-36	32oz, 1 Gallon
7028	Pap Stain, EA-50	32oz, 1 Gallon, 2.5 Gallon
7030	Pap Stain EA-65	32oz, 1 Gallon, 2.5 Gallon
3340	Ethanol Solution, 95%	32oz, 1 Gallon, 5 Gallon
3341	Ethanol Solution, 100%	32oz, 1 Gallon, 5 Gallon
3346	Xylene	16oz, 1 Gallon, 5 Gallon
3349	Acrylic Mounting Medium	4oz, 16oz

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