



StatLab Cytology Stain Family

Instructions For Use

The Cytology Stain Family is specifically designed for staining of gynecological and non-gynecological cytology specimens. The staining products are formulated using the highest grade and certified raw materials that will provide optimal results. Each and every raw material is tested to meet the industry's highest standards. Finished good testing involves analytical, qualitative and quantitative analysis to ensure product quality, longevity, and lot to lot consistency. Each lot of stain also undergoes a functionality test to ensure the highest quality results. Enhanced packaging promotes product quality and longevity. All the stain products are ready to use and require no dilution. The cytology stain family is designed to produce optimal results when used together under the recommended guidelines.

Hematoxylin – Reserve (SL200)

This uniquely formulated progressive nuclear stain is considered a hybrid hematoxylin product. It possesses the rapid staining qualities of the Gill type stain along with the familiar and the brilliant nuclear chromatin delineation of a Harris Hematoxylin type stain. This stain has applications for both Cytology and Histology laboratories.

Hematoxylin – Vintage (SL100)

This progressive nuclear stain is designed to provide the end user with a uniquely formulated Hematoxylin stain that can be used in place of Gill type hematoxylin. This rapid stain will provide unsurpassed nuclear chromatin detail with no affinity for background staining. Hematoxylin - Vintage has applications for both Cytology and Histology laboratories.

EA50 and EA50 Modified

The EA stain series provides brilliant cytoplasmic staining for all gynecological and non-gynecological specimens. EA50 and EA50 Modified are used with OG 6 for common gynecological specimens. Selective staining is accomplished through differential affinities of the dyes for various cellular components. All formulations are modified to reduce unwanted chemical precipitation and staining times.

OG 6

OG 6 is a modified formulation used in combination with the EA series to stain keratinized cells in all gynecological and non-gynecological specimens. This formulation eliminates common chemical precipitation associated with traditional OG products.



Cyto-Dx Stain

Cyto-Dx Stain is formulated to provide the cytology end user with familiar color hues associated with cytology smears. This easy, one step cytoplasmic stain will save labor and reagent costs by the elimination of multiple steps and reagents. Cyto-Dx Stain is very easy to use and under the complete control of the end user. The stain can be used with all gynecological and non-gynecological specimens with ease.

Bluing Reagent (Reserve and Vintage)

Bluing Reagent is a buffered alkaline rinse with a mild pH (8.0) that will ensure optimal staining and proper cellular hue staining. A one-minute immersion time is recommended with a short water rinse afterward. Bluing Reagent is premixed and ready to use and will eliminate the common difficulties associated with other non-conventional bluing reagents.

High-Def (Acid Rinse)

High-Def is a glacial acetic acid-based formulation that provides unparalleled crisp nuclear chromatin detail and eliminates any undesired background staining when used with Hematoxylin – Reserve and Hematoxylin – Vintage. It renders cells more transparent and helps to achieve more traditional greener hues in intermediate cells. High-Def is premixed and ready to use and non-hazardous.



**Instructions for Use:
Staining Procedure (Cytology):**

| | |
|--------------------------------------|---------------|
| 1. 95% Reagent Grade Alcohol | 2 minutes |
| 2. 95% Reagent Grade Alcohol | 2 minutes |
| 3. Water Rinse | 30 seconds |
| 4. Hematoxylin – Reserve /Vintage | 1-3 minutes |
| 5. Water Rinse | 30 seconds |
| 6. High-Def (Acid Rinse) | 30-60 seconds |
| 7. Water Rinse | 30 seconds |
| 8. Bluing Reagent-Reserve or Vintage | 30 seconds |
| 9. Water Rinse | 30 seconds |
| 10. 95% Reagent Grade Alcohol | 15 seconds |
| 11. OG 6 | 1-3 minutes |
| 12. 95% Reagent Grade Alcohol | 30 seconds |
| 13. 95% Reagent Grade Alcohol | 30 seconds |
| 14. EA 50/EA50 Modified | 1-3 minutes |
| 15. 95% Reagent Grade Alcohol | 30 seconds |
| 16. 95% Reagent Grade Alcohol | 30 seconds |
| 17. 100% Reagent Grade Alcohol | 30 seconds |
| 18. 100% Reagent Grade Alcohol | 30 seconds |
| 19. 100% Reagent Grade Alcohol | 30 seconds |
| 20. Clearing Reagent | 1 minute |
| 21. Clearing Reagent | 1 minute |
| 22. Clearing Reagent | 1 minute |
| | Coverslip |

Results

Nuclear Chromatin: Purple

Intermediate Cell: Green to Blue

Surface Cell: Pink

Keratinized Cells: Orange

The schedules provided are only suggestions – modifications may be necessary to fit personal preferences.



Staining Procedure (Cytology – Cyto-Dx Stain):

| | |
|----------------------------------------|---------------|
| 1. 95% Reagent Grade Alcohol | 2 minutes |
| 2. 95% Reagent Grade Alcohol | 2 minutes |
| 3. Water Rinse | 30 seconds |
| 4. Hematoxylin – (Reserve/ Vintage) | 1-3 minutes |
| 5. Water Rinse | 30 seconds |
| 6. High-Def (Acid Rinse) | 20-60 seconds |
| 7. Water Rinse | 30 seconds |
| 8. Bluing Reagent - Reserve or Vintage | 30 seconds |
| 9. Water Rinse | 30 seconds |
| 10. 95% Reagent Grade Alcohol | 15 seconds |
| 11. Cyto-Dx Stain | 2-4 minutes |
| 12. 95% Reagent Grade Alcohol | 30 seconds |
| 13. 95% Reagent Grade Alcohol | 30 seconds |
| 14. 100% Reagent Grade Alcohol | 30 seconds |
| 15. 100% Reagent Grade Alcohol | 30 seconds |
| 16. 100% Reagent Grade Alcohol | 30 seconds |
| 17. Clearing Reagent | 30 seconds |
| 18. Clearing Reagent | 30 seconds |
| 19. Clearing Reagent | 30 seconds |
| | Coverslip |

Results

Nuclear Chromatin: Purple

Intermediate Cells: Green to Blue

Surface Cells: Pink

Keratinized Cells: Orange

The schedules provided are only suggestions – modifications may be necessary to fit personal preferences.



Note:

- Product change is dependent on the end user's own quality assurance program. Generally, solutions should be changed every week for best results. Solutions should be covered when not in use. If last alcohol after the counterstain is tinted, alcohols should be rotated or changed.
- Each raw material stain/dye is certified by the Biological Stain Commission.
- Protective clothing and other gear should be worn, and the work area should be properly ventilated.
- Distilled or deionized water is preferred for use in the staining procedure. Tap water can contain contaminants that will affect staining quality. Fluctuations in pH of tap water can also affect staining quality.
- The 2 alcohol rinses at the beginning of the staining sequence allow for rapid removal of the spray fixative coating.
- The 2 alcohol rinses after the counterstains function to diminish the cationic dyes from certain components, allowing greater cellular differentiation.
- The Cytology Stain Family can be used on any conventional automated staining instrument. Cyto-Dx stain is preferred due to it being a single solution counterstain with fewer alcohol rinses.
- Caution: EA50, EA50 Modified, OG 6 and Cyto-Dx are flammable Liquids. Keep containers closed when not in use. Store in flammable fire cabinet.
- Disposal for all staining reagents is in accordance to local, state, and federal regulations.
- Call Technical Support at 800-442-3573 or email ihctech@statlab.com for assistance.