Hematoxylin and Eosin (H&E) Control Slides – Technical Memo

CONTROL SLIDES:  Part 4278A  Part 4278B
10 Slide/Set  98 Slide/Set

PRODUCT SPECIFICATIONS:
Tissue: Positive staining small intestine.
Fixation: Formalin 10%, Phosphate Buffered (Part 1090).
Section/Glass: Paraffin sections cut at 4 microns on Superfrost™ Plus slides.
Quality Control Stain: H&E quality control stained slide(s) included.
Reactivity: Guaranteed product specific reactivity for one year from date of receipt. Revalidate after one year to verify continued reactivity.
Storage: 15-30°C in a light deprived and humidity controlled environment.

Before using unstained control slides, review the enclosed stained slide(s) to ensure that this tissue source is acceptable for testing needs.

PRODUCT DESCRIPTION:
The enclosed positive control slides are intended to verify histological techniques and reagent reactivity. The intended use is for the qualitative purpose of determining positive or negative results, and not intended for any quantitative purpose. These positive control slides are produced from human surgical or autopsy tissues under carefully controlled conditions. Quality control measures are used to deliver control slides that are as consistent as possible.

CONTROL SLIDE VALIDATION:
With Hematoxylin and Eosin (H&E) Stain:

<table>
<thead>
<tr>
<th>Hematoxylin Stain, Harris Modified</th>
<th>Individual Stain Solution</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid Alcohol 1%</td>
<td>Hematoxylin Stain, Harris</td>
<td>1021</td>
</tr>
<tr>
<td>Lithium Carbonate, Saturated Aqueous</td>
<td>Scott Tap Water Substitute</td>
<td>1215</td>
</tr>
<tr>
<td>Eosin Y Working Solution</td>
<td></td>
<td>1072</td>
</tr>
</tbody>
</table>

APPLICATION:
Newcomer Supply Hematoxylin & Eosin (H&E) Control Slides are for the clear demonstration of nuclei, epithelium, connective tissue and muscle, important tissue elements for documentation of high quality nuclear and cytoplasmic staining.

For quality control measures, use H&E Control Slides each day that H&E staining is performed and additionally after any H&E solution change. Run H&E Control Slides prior to staining any diagnostic cases to ensure acceptable H&E staining.

NEWCOMER SUPPLY VALIDATION PROCEDURE:

1. Heat dry sections in oven according to your laboratory protocol.
2. Deparaffinize sections thoroughly in three changes of xylene, 3 minutes each. Hydrate through two changes each of 100% and 95% ethyl alcohols, 10 dips each. Wash well with distilled water.
   a. See Procedure Notes #1 and #2.
3. Stain with Hematoxylin Stain, Harris Modified or Hematoxylin Stain, Harris for 1 to 5 minutes, depending on preference of nuclear stain intensity.
4. Wash well in three changes of tap water.
5. Differentiate quickly in Acid Alcohol 1%.
   a. See Procedure Note #3.
6. Rinse immediately in three changes of tap water.
7. Blue slides in Lithium Carbonate, Saturated Aqueous or Scott Tap Water Substitute for 10 dips.
8. Wash in three changes of tap water; rinse in distilled water.
9. Drain excess water from slides; proceed to 70% alcohol for 10 dips.
10. Counterstain in Eosin Y Working Solution for 30 seconds to 3 minutes, depending on preference of intensity.
11. Dehydrate in two changes of 95% ethyl alcohol for 1 minute each and two changes of 100% ethyl alcohol, 10 dips each. Clear in three changes of xylene, 10 dips each; coverslip with compatible mounting medium.

RESULTS:
- Nuclei: Blue
- Cytoplasm of epithelium, connective tissue, muscle: Shades of pink

PROCEDURE NOTES:
1. Drain slides after each step to prevent solution carry over.
2. Do not allow sections to dry out at any point during procedure.
3. Differentiate to suit preference of nuclear stain intensity.
   a. Check microscopically to assure hematoxylin intensity is satisfactory.
   b. Nuclei should be distinct and background light to colorless.
4. If using a xylene substitute, closely follow the manufacturer’s recommendations for deparaffinization and clearing steps.

REFERENCES:
3. Modifications developed by Newcomer Supply Laboratory.

SUPPORT/WARRANTY: For assistance regarding this product contact Newcomer Supply at 800-383-7799 or info@newcomersupply.com. The information presented in this technical memo is to the best of our knowledge accurate. No warranty is expressed or implied. The user is responsible for determining the suitability of this product for their use and upon receipt assumes all liability for its use and responsibility for compliance with any laws or regulations. Please refer to www.newcomersupply.com for complete warranty information. © Newcomer Supply, Inc., 2019