

## Amoeba Control Slides – Technical Memo

**CONTROL SLIDES:**                      **Part 4025A**                      **Part 4025B**  
10 Slide/Set                              98 Slide/Set

Amoeba Control Slides contain a section of positive staining intestine.

### PRODUCT DESCRIPTION:

The enclosed positive control slides are intended to be used to verify histological techniques and reagent reactivity. These slides are to be used for the qualitative purpose of determining positive or negative results, and are not intended to be used for any quantitative purpose. The first serial section within the control box is stained and provided for your reference. **Before using the unstained slides, review the enclosed stained slide with your pathologist to ensure that this tissue source is acceptable. Newcomer Supply will not accept a return with missing slides in the series. Newcomer Supply guarantees reactivity of these control slides for one year from the date of receipt. Revalidate after one year to verify continued reactivity. Store at 15-30°C in a light deprived and humidity controlled environment.**

These positive control slides were produced from human surgical or autopsy tissues under carefully controlled conditions. Reasonable measures are used to deliver quality control slides that are as consistent as possible. However, characteristics of quality control slides may be dissimilar due to variations in the reagents, stains, techniques, laboratory conditions, and tissue sources used. Newcomer Supply Laboratory uses a manual method of performing quality control procedures, specifically avoiding automation, in order to provide reactive control slides for even less aggressive methods of staining that our customers may be using.

### CONTROL SLIDE VALIDATION:

With Periodic Acid Schiff (PAS) Stain Kit:	Part 9162A/B	Individual Stain Solution
Solution A: Periodic Acid 0.5%, Aqueous	250/500 ml	Part 13308
Solution B: Schiff Reagent, McManus	250/500 ml	Part 1371
Solution C: Hematoxylin Stain, Harris	250/500 ml	Part 12013
Solution D: Acid Alcohol 1%	250/500 ml	Part 10011
Solution E: Lithium Carbonate, Saturated Aqueous	250/500 ml	Part 12215

*For storage requirements and expiration date refer to individual product labels.*

### APPLICATION:

Newcomer Supply Amoeba Control Slides are for the positive histochemical staining of amoeba and glycogen components.

### METHOD:

**Fixation:** Formalin 10%, Phosphate Buffered (Part 1090)  
**Technique:** Paraffin sections cut at 5 microns on Superfrost® Plus  
**Solutions:** All solutions are manufactured by Newcomer Supply, Inc.

### NEWCOMER SUPPLY VALIDATION PROCEDURE:

1. 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.
2. Place in Solution A: Periodic Acid 0.5%, Aqueous for 10 minutes.
3. Wash in three changes of tap water; rinse in distilled water.
4. Place in Solution B: Schiff Reagent, McManus for 20 minutes.
5. Wash in lukewarm tap water for 5-10 minutes.
6. Stain with Solution C: Hematoxylin Stain, Harris, 1 to 5 minutes, depending on preference of nuclear stain intensity.
7. Wash in tap water for 2-3 minutes.
8. Differentiate in Solution D: Acid Alcohol 1%; 1-2 quick dips.
9. Wash in tap water for 1 minute.
10. Blue sections in Solution E: Lithium Carbonate, Saturated Aqueous; 3-4 dips.
  - a. The use of Lithium Carbonate may cause Amoeba to look purplish; bluing step can be skipped.
11. Wash in several changes of tap water; rinse in distilled water.
12. Dehydrate in two changes each of 95% and 100% ethyl alcohol. Clear in three changes of xylene, 10 dips each; coverslip with compatible mounting medium.

### RESULTS:

Amoeba (cytoplasmic)	Dark pink to magenta
Glycogen	Magenta
Nuclei	Blue

### PROCEDURE NOTES:

1. Drain staining rack/slides after each step to prevent solution carry over.
2. Do not allow sections to dry out at any point during staining procedure.
3. Newcomer Supply Schiff Reagent, McManus is stored at room temperature. There is no benefit to store this product at 4°C.
4. If using a xylene substitute, closely follow the manufacturer's recommendations for deparaffinization and clearing steps.

### REFERENCES:

1. Bancroft, John D., and Marilyn Gamble. *Theory and Practice of Histological Techniques*. 6th ed. Oxford: Churchill Livingstone Elsevier, 2008. 168-171, 180.
2. Carson, Freida L., and Christa Hladik. *Histotechnology: A Self-Instructional Text*. 3rd ed. Chicago, Ill.: American Society of Clinical Pathologists, 2009. 137-141.
3. Sheehan, Dezna C., and Barbara B. Hrapchak. *Theory and Practice of Histotechnology*. 2nd ed. St. Louis: Mosby, 1980. 164-168, 245.
4. Modifications developed by Newcomer Supply Laboratory.

