

Alcian Blue pH 2.5, Barrett's Esophagus Control Slides – Technical Memo

CONTROL SLIDES: Part 4023A
10 Slide/Set

PRODUCT SPECIFICATIONS:

Tissue: Positive staining Barrett's esophagus.

Fixation: Formalin 10%, Phosphate Buffered (Part 1090).

Section/Glass: Paraffin sections cut at 4 microns on Superfrost™ Plus slides.

Quality Control Stain: Alcian Blue pH 2.5 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.

Intended Use: To verify histological techniques and reagent reactivity.

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

CONTROL SLIDE VALIDATION:

With Alcian Blue 1%, pH 2.5 Stain Kit:

Solution A: Acetic Acid 3%, Aqueous

Solution B: Alcian Blue Stain 1%, pH 2.5 Aqueous

Solution C: Nuclear Fast Red Stain, Kernechtrot

Part 9102A/B

250/500 ml

250/500 ml

250/500 ml

Individual Stain Solution

Part 10017

Part 1003

Part 1255

APPLICATION:

Newcomer Supply Alcian Blue pH 2.5, Barrett's Esophagus Control Slides are for the positive histochemical staining of acid epithelial mucins (sialomucin, sulfomucin) as well as stromal (mesenchymal) mucin and demonstrates the presence of columnar epithelium with goblet cells and stratified squamous epithelium in esophageal biopsy.

NEWCOMER SUPPLY VALIDATION PROCEDURE:

- Heat dry sections in oven according to your laboratory protocol.
- 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.
 - See Procedure Notes #1 and #2.
- Place slides in Solution A: Acetic Acid 3%, Aqueous for 3 minutes.
- Move slides directly into Solution B: Alcian Blue Stain 1%, pH 2.5 Aqueous. Stain for 30 minutes at room temperature or 15 minutes in a 37°C water bath.
 - See Procedure Note #3.
- Wash in running tap water for 10 minutes; rinse in distilled water.
- Counterstain in Solution C: Nuclear Fast Red Stain, Kernechtrot for 5 minutes.
 - Shake solution well before use; do not filter.
- Rinse well in distilled water.
 - See Procedure Note #4
- Dehydrate quickly through two changes of 95% ethyl alcohol and two changes of 100% ethyl alcohol. Clear in three xylene changes, 10 dips each; coverslip with compatible mounting medium.

RESULTS:

| | |
|-----------------------------|-----------|
| Acid epithelial mucins | Blue |
| Stromal (mesenchymal) mucin | Blue |
| Goblet cells | Pale blue |
| Nuclei | Pink-red |
| Cytoplasm | Pale pink |

PROCEDURE NOTES:

- Drain slides after each step to prevent solution carry over.
- Do not allow sections to dry out at any point during procedure.
- A brief dip in Solution A: Acetic Acid 3%, Aqueous from Step #3 can be added before Step #5 to remove excess Alcian Blue Stain.
- Wash well after Nuclear Fast Red Stain, Kernechtrot to avoid cloudiness in dehydration steps.
- If using a xylene substitute, follow manufacturer's recommendation for deparaffinization and clearing steps.

REFERENCES:

- Carson, Freida L. and Christa Hladik. *Histotechnology: A Self-Instructional Text*. 3rd ed. Chicago, Ill.: American Society of Clinical Pathologists, 2009. 145-148.
- Sheehan, Dezna C. and Barbara B. Hrapchak. *Theory and Practice of Histotechnology*. 2nd ed. St. Louis: Mosby, 1980. 172-175.
- Modifications developed by Newcomer Supply Laboratory.

