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Part 4021 Revised January 2020

# Alcian Blue pH 2.5, Multi-Tissue Control Slides – Technical Memo

CONTROL SLIDES:

Part 4021A 10 Slide/Set

98 Slide/Set

Part 4021B

## **PRODUCT SPECIFICATIONS:**

Tissue: Positive staining umbilical cord and 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: 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:	Part 9102A/B	Individual Stain Solution
Solution A: Acetic Acid 3%, Aqueous	250/500 ml	Part 10017
Solution B: Alcian Blue Stain 1%, pH 2.5 Aqueous	250/500 ml	Part 1003
Solution C: Nuclear Fast Red Stain, Kernechtrot	250/500 ml	Part 1255

## **APPLICATION:**

Newcomer Supply Alcian Blue pH 2.5, Multi-Tissue Control Slides use a combination of tissue sources for the positive histochemical staining of acid epithelial mucins (sialomucin, sulfomucin) as well as stromal (mesenchymal) mucin.

## **NEWCOMER SUPPLY VALIDATION PROCEDURE:**

- 1. 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.
  a. See Procedure Notes #1 and #2.
- 3. 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 for 15 minutes in a 37°C water bath.
- 5. Wash in running tap water for 10 minutes; rinse in distilled water. a. See Procedure Note #3.
- 6. Counterstain in Solution C: Nuclear Fast Red Stain, Kernechtrot for 5 minutes.

a. Shake solution well before use; do not filter.

- Rinse well in distilled water.
- a. 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:**

7.

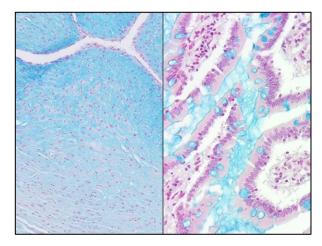
Acid epithelial mucins	Blue
Stromal (mesenchymal) mucin	Blue
Nuclei	Pink-red
Cytoplasm	Pale pink

#### 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. A brief dip in Solution A: Acetic Acid 3%, Aqueous from Step #3 can be added before water rinses to remove excess Alcian Blue Solution if needed.
- 4. Wash well after Nuclear Fast Red Stain, Kernechtrot to avoid cloudiness in dehydration steps.
- 5. If using a xylene substitute, closely follow the manufacturer's recommendations 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.
- 3. Modifications developed by Newcomer Supply Laboratory.



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