Alcian Blue pH 2.5, Goblet Cell Control Slides – Technical Memo

CONTROL SLIDES: Part 4051A Part 4051B
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: 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.

NON-LICENSED TECHNICAL MEMO: To the best of our knowledge accurate.

APPLICATION:
Newcomer Supply Alcian Blue pH 2.5, Goblet Cell Control Slides are for the positive histochemical staining of goblet cells as well as other acid epithelial mucins (sialomucin, sulfomucin). Goblet cells normally line the small intestine but are an abnormal finding in Barrett’s esophagus.

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. Place slides in Solution A: Acetic Acid 3%, Aqueous for 3 minutes.
4. 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.
   a. See Procedure Note #4.
7. Rinse well in distilled water.
   a. See Procedure Note #5.
8. 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:
- Goblet cells: Bright blue
- Acid epithelial 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:
3. Modifications developed by Newcomer Supply Laboratory.