

Alcian Blue Stain 1%, pH 1.0 - Technical Memo

SOLUTION:

Alcian Blue Stain 1%, pH 1.0 Aqueous

250 ml

Part 1005A

500 ml

Part 1005B

Additionally Needed:

Hydrochloric Acid 0.1N, Aqueous

Part 1207

Nuclear Fast Red Stain, Kernechtrot

Part 1255

Xylene, ACS

Part 1445

Alcohol, Ethyl Denatured, 100%

Part 10841

Alcohol, Ethyl Denatured, 95%

Part 10842

For storage requirements and expiration date refer to individual bottle labels.

APPLICATION:

Newcomer Supply Alcian Blue Stain 1%, pH 1.0 Aqueous is for the specific staining of sulfated acid epithelial mucins in the Alcian Blue 1%, pH 1.0 procedure.

METHOD:**Fixation:** Formalin 10%, Phosphate Buffered (Part 1090)**Technique:** Paraffin sections cut at 4 microns**Solutions:** All solutions manufactured by Newcomer Supply, Inc.

All Newcomer Supply stain procedures are designed to be used with Coplin jars filled to 40 ml following the provided staining procedure.

STAINING PROCEDURE:

1. If necessary, heat dry tissue sections/slides in oven.
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 note #1.
3. Rinse briefly in Hydrochloric Acid 0.1N, Aqueous (1207).
 - a. Save Hydrochloric Acid 0.1N, Aqueous for Step #5.
4. Stain in Alcian Blue Stain 1%, pH 1.0 Aqueous for 30 minutes at room temperature.
5. Rinse briefly in Hydrochloric Acid 0.1N, Aqueous.
 - a. Do not wash in water.
 - b. A water wash may alter pH level resulting in nonspecific staining.
6. Blot slide(s) dry with filter paper.
7. Counterstain dried slide(s) with Nuclear Fast Red Stain, Kernechtrot (1255) for 5 minutes.
 - a. Shake solution well before use; do not filter.
8. Rinse well in distilled water.
 - a. See Procedure Note #2.
9. Dehydrate quickly 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:

Sulfated acid epithelial mucin	Blue
Cytoplasm and background	Pink
Nuclei	Pink to red

PROCEDURE NOTES:

1. Drain slides after each step to prevent solution carry over.
2. Wash well after Nuclear Fast Red Stain, Kernechtrot to avoid cloudiness in dehydration steps.
3. If using a xylene substitute, closely follow the manufacturer's recommendations for deparaffinization and clearing steps.

REFERENCES:

1. Carson, Freida L., and Christa Hladik. *Histotechnology: A Self-Instructional Text*. 3rd ed. Chicago, Ill.: American Society of Clinical Pathologists, 2009.146-147.
2. Sheehan, Dezna C., and Barbara B. Hrapchak. *Theory and Practice of Histotechnology*. 2nd ed. St. Louis: Mosby, 1980. 173.
3. Modifications developed by Newcomer Supply Laboratory.