

Victoria Blue Stain, Alcoholic - Technical Memo

SOLUTION:

Victoria Blue Stain, Alcoholic	500 ml Part 1406A	1 Liter Part 1406C
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Additionally Needed:

Elastic, Aorta Control Slides	Part 4194	or	Elastic, Skin Control Slides	Part 4195
Xylene, ACS	Part 1445			
Alcohol, Ethyl Denatured, 100%	Part 10841			
Alcohol, Ethyl Denatured, 95%	Part 10842			
Potassium Permanganate 1%, Aqueous	Part 13393			
Sulfuric Acid 1%, Aqueous	Part 14012			
Sodium Bisulfite 1%, Aqueous	Part 13821			
Alcohol, Ethyl Denatured, 70%	Part 10844			
Nuclear Fast Red Stain, Kernechtrot	Part 1255			

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

APPLICATION:

Newcomer Supply Victoria Blue Stain, Alcoholic, a uniquely blended stain solution, is used for the demonstration of connective tissue, elastic fibers and fibrosis. Other applications include staining of copper-associated protein in liver sections.

METHOD:

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

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

STAINING 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 Note #1.
2. Prepare fresh Potassium Permanganate-Sulfuric Acid Working Solution; combine and mix well.

a. Potassium Permanganate 1%, Aqueous (13393)	10 ml
b. Sulfuric Acid 1%, Aqueous (14012)	10 ml
c. Distilled Water	40 ml
3. Place slides in Potassium Permanganate-Sulfuric Acid Working Solution for 5 minutes.
4. Treat with Sodium Bisulfite 1%, Aqueous (13821) for 2 minutes or until sections are colorless.
5. Wash slides well in running tap water.
6. Rinse in 70% ethyl alcohol (10844) for 2 minutes.
7. Stain in Victoria Blue Stain, Alcoholic for a minimum of 4 hours.
 - a. See Procedure Note #2.
8. Differentiate in 70% ethyl alcohol for 1-3 minutes or until background is completely decolorized.
9. Wash slides well in running tap water.
10. Counterstain in Nuclear Fast Red Stain, Kernechtrot (1255) for 5 minutes.
11. Wash in running tap water for 5 minutes.
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:

Elastic fibers	Blue
Copper-associated protein	Blue (if present in liver sections)
Nuclei and cytoplasm	Red

PROCEDURE NOTES:

1. Drain staining rack/slides after each step to prevent solution carry over.
2. For best results, overnight staining at room temperature in Victoria Blue Stain, Alcoholic is recommended.
3. If using a xylene substitute, closely follow the manufacturer's recommendations for deparaffinization and clearing steps.

REFERENCES:

1. Luna, Lee G. *Manual of Histologic Staining Methods of the Armed Forces Institute of Pathology*. 3rd ed. New York: Blakiston Division, McGraw-Hill, 1968. 296-297.
2. Prophet, Edna B., Bob Mills, Jacquelyn Arrington, and Leslie Sobin. *Laboratory Methods in Histotechnology*. Washington, D.C.: American Registry of Pathology. 11992. 210-211.
3. Tanaka, Kaoru, Wataru Mori, and Koji Suwa. "Victoria Blue-Nuclear Fast Red Stain for HBs Antigen Detection in Paraffin Section." *Pathology International* 31.1 (1981): 93-98.
4. Tsutsumi, Yutaka, Noboru Onoda, and Yoshiyuki Osamura. "Victoria Blue-Hematoxylin and Eosin Staining: A Useful Routine Stain for Demonstration of Venous Invasion by Cancer Cells." *The Journal of Histotechnology* 13.4 (1990): 271-274.
5. Modifications developed by Newcomer Supply Laboratory.