CONTROL SLIDES:  
Part 4194A  
10 Slide/Set  
Part 4194B  
98 Slide/Set

PRODUCT SPECIFICATIONS:  
Tissue:  Positive staining aorta.  
Fixation:  Formalin 10%, Phosphate Buffered (Part 1090).  
Section/Glass:  Paraffin sections cut at 4 microns on Superfrost™ Plus slides.  
Quality Control Stain:  Verhoef-Van Gieson Elastic 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.

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

PRODUCT DESCRIPTION:  
The enclosed positive control slides are intended to verify histological techniques and reagent reactivity. The intended use is for the qualitative purpose of determining positive or negative results, and not intended for any quantitative purpose. These positive control slides are produced from human surgical or autopsy tissues under carefully controlled conditions. Quality control measures are used to deliver control slides that are as consistent as possible.

CONTROL SLIDE VALIDATION:  
With Elastic, Verhoef Stain Kit:  
Solution A:  Hematoxylin 5%, Alcoholic  
Solution B:  Ferric Chloride 10%, Aqueous  
Solution C:  Iodine, Weigert & Lugol, Aqueous  
Solution D:  Sodium Thiosulfate 5%, Aqueous  
Solution E:  Van Gieson Stain  
Individual Stain Solution  
Part 9116A/B  
Part 11623  
Part 10856  
Part 12092  
Part 1398  
Part 1404

APPLICATION:  
Newcomer Supply Elastic, Aorta Control Slides are for the positive histochemical staining of elastic fibers in artery.

PRESTAINING PREPARATION:  
1. Heat dry sections in oven according to your laboratory protocol.  
2. Prepare fresh Verhoef Working Solution by combining in the exact order listed, mixing well after each addition. Save for Step #5.  
a. Solution A:  Hematoxylin 5%, Alcoholic  
b. Solution B:  Ferric Chloride 10%, Aqueous  
c. Solution C:  Iodine, Weigert & Lugol, Aqueous  
3. Prepare fresh Ferric Chloride 2%, Aqueous Solution for Step #7.  
a. Solution B:  Ferric Chloride 10%, Aqueous  
b. Distilled water

STAINING PROCEDURE:  
4. Deparaffinize sections thoroughly in three changes of xylene, 3 minutes each. Hydrate through two changes each of 100% and 95% ethyl alcohol, 10 dips each. Wash well with distilled water.  
a. See Procedure Notes #1 and #2.  
5. Stain in fresh Verhoef Working Solution (Step #2) for 20 minutes.  
6. Rinse in several changes of tap water.  
7. Differentiate each slide individually in fresh Ferric Chloride 2%, Aqueous Solution (Step #3) with agitation; approximately 20 dips.  
8. Check differentiation; rinse well in tap water and check microscopically for black elastic staining with gray background.  
a. Repeat in Ferric Chloride 2%, Aqueous Solution if necessary until desired elastic differentiation is achieved.  
b. See Procedure Notes #3 and #4.  
9. Wash well in tap water.  
10. Place in Solution D: Sodium Thiosulfate 5%, Aqueous for 1 minute.  
11. Wash well in running tap water for 5 minutes.  
12. Counterstain in Solution E: Van Gieson Stain for 3 to 5 minutes.  
13. 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/tissue/nuclei  Blue-black to black  
Collagen  Red  
Other tissue elements  Yellow

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. It is easy to over-differentiate in Ferric Chloride 2%, Aqueous Solution.  
   a. If background is completely colorless, the section has been over-differentiated.  
   b. Over-differentiated sections may be re-stained in Step #5 provided sections have not been treated with alcohol.  
4. Slides must be individually differentiated. Differentiation can vary dependent upon the amount of elastic tissue present in sections.  
5. If using a xylene substitute, closely follow the manufacturer’s recommendations for deparaffinization and clearing steps.

REFERENCES:  
2. Mallory, Frank Burr, and James Homer Wright.  
3. Modifications developed by Newcomer Supply Laboratory.

SUPPORT/WARRANTY:  
For assistance regarding this product contact Newcomer Supply at 800-383-7799 or info@newcomersupply.com. The information presented in this technical memo is to the best of our knowledge accurate. No warranty is expressed or implied. The user is responsible for determining the suitability of this product for their use and upon receipt assumes all liability for its use and responsibility for compliance with any laws or regulations. Please refer to www.newcomersupply.com for complete warranty information. © Newcomer Supply, Inc., 2019