Trichrome, Kidney Control Slides – Technical Memo

CONTROL SLIDES: Part 4691A Part 4691B
10 Slide/Set 98 Slide/Set

PRODUCT SPECIFICATIONS:
Tissue: Positive staining kidney.
Fixation: Formalin 10%, Phosphate Buffered (Part 1090).
Section/Glass: Paraffin sections cut at 4 microns on Superfrost™ Plus slides.
Quality Control Stain: Gomori One-Step Aniline Blue 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 histotechnical 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 Trichrome, Gomori One-Step, Aniline Blue Stain Kit: Part 9176B/A Individual Stain Solution
Solution A: Bouin Fluid
Solution B: Ferric Chloride, Acidified
Solution C: Hematoxylin 1%, Alcoholic
Solution D: Trichrome Stain, Gomori One-Step, Aniline Blue
Solution E: Acetic Acid 0.5%, Aqueous

APPLICATION:
Newcomer Supply Trichrome, Kidney Control Slides are for the positive histochemical staining of connective tissue and to differentially demonstrate collagen and muscle fibers.

PRESTAINING PREPARATION:
1. Heat dry sections in oven according to your laboratory protocol.
2. Preheat Solution A: Bouin Fluid to 56-60°C in oven or water bath. (Skip if using overnight method or microwave procedure.)

NEWCOMER SUPPLY VALIDATION PROCEDURE:
3. 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 (page 2).
4. Mordant in preheated Solution A: Bouin Fluid (Step #2) for one hour at 56-60°C or overnight at room temperature. Cool at room temperature for 5-10 minutes.
   a. Skip Step #4 if tissue was originally Bouin fixed.
   Microwave Modification: See Procedure Note #3 (page 2).
   b. Place slides in a plastic Coplin jar containing Solution A: Bouin Fluid and microwave for 5 minutes at 60°C.
5. Wash well in running tap water; rinse in distilled water.
6. Prepare fresh Weigert Iron Hematoxylin; combine and mix well.
   a. Solution B: Ferric Chloride, Acidified 20 ml
   b. Solution C: Hematoxylin 1%, Alcoholic 20 ml
7. Stain in fresh Weigert Iron Hematoxylin for 10 minutes.
8. Wash in running tap water for 10 minutes; rinse in distilled water.
   a. See Procedure Note #4 (page 2).
9. Stain with Solution D: Trichrome Stain, Gomori One-Step, Aniline Blue for 20 minutes.
10. Differentiate in Solution E: Acetic Acid 0.5%, Aqueous; 2 minutes.
11. Rinse quickly in distilled water.
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:
Collagen and mucin Blue
Muscle fibers, cytoplasm and keratin Red
Nuclei Blue/black

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
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. The suggested microwave procedure has been tested at Newcomer Supply. This procedure is a guideline and techniques should be developed for use in your laboratory.
4. If Weigert Iron Hematoxylin is not completely washed from tissue sections, nuclear and cytoplasmic staining may be compromised.
5. Trichrome, Kidney Control Slides are validated with Trichrome Stain Kit, Gomori One-Step, Aniline Blue but can be used as positive controls with the end users Trichrome stain procedure of preference.
6. If using a xylene substitute, closely follow the manufacturer’s recommendations for deparaffinization and clearing steps.

REFERENCES:

5. Modifications developed by Newcomer Supply Laboratory.