

Iron, Animal Control Slides – Technical Memo

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| CONTROL SLIDES: | Part 4321A | Part 4321B |
| | 10 Slide/Set | 98 Slide/Set |

PRODUCT SPECIFICATIONS:

Tissue: Positive staining animal organ.

Fixation: Formalin 10%, Phosphate Buffered (Part 1090).

Section/Glass: Paraffin sections cut at 4 microns on Superfrost™ Plus slides.

Quality Control Stain: Gomori Prussian 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 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 sections are produced from animal tissue and the negative control sections 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 Iron, Gomori Prussian Blue Stain Kit:

Solution A: Hydrochloric Acid 20%, Aqueous

Solution B: Potassium Ferrocyanide 10%, Aqueous

Solution C: Nuclear Fast Red Stain, Kernechtrot

Part 9136A/B

125/250 ml

125/250 ml

250/500 ml

Individual Stain Solution

Part 12087

Part 13392

Part 1255

APPLICATION:

Newcomer Supply Iron, Animal Control Slides are for the positive histochemical staining of ferric iron deposits in tissue sections.

PRESTAINING PREPARATION:

- Heat dry sections in oven according to your laboratory protocol
- To avoid the possibility of residual background iron staining, acid clean glassware is recommended in the staining procedure.
 - See Procedure Note #1.

NEWCOMER SUPPLY VALIDATION PROCEDURE:

- 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.
 - See Procedure Notes #2 and #3.
- Prepare fresh Ferrocyanide Working Solution directly before use; combine and mix well.
 - Solution A: Hydrochloric Acid 20%, Aqueous 20 ml
 - Solution B: Potassium Ferrocyanide 10%, Aqueous 20 ml
- Place slides in fresh Ferrocyanide Working Solution for 20 minutes.
- Rinse in three changes of tap water; rinse in distilled water.
- Place in Solution C: Nuclear Fast Red Stain, Kernechtrot for 5 minutes.
 - Shake solution well before use; do not filter.
- Rinse well in distilled water.
 - See Procedure Note #4.
- 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:

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|----------------------|-------------|
| Ferric iron deposits | Bright blue |
| Nuclei | Red |
| Cytoplasm | Pink |

PROCEDURE NOTES:

- Acid clean all glassware/plasticware (12086) and rinse thoroughly in several changes of distilled water.
- Drain slides after each step to prevent solution carry over.
- Do not allow sections to dry out at any point during procedure.
- Wash well after Nuclear Fast Red Stain, Kernechtrot to avoid cloudiness in dehydration steps.
- If using a xylene substitute, closely follow the manufacturer's recommendations for deparaffinization and clearing steps.

REFERENCES:

- Luna, Lee G. *Manual of Histologic Staining Methods of the Armed Forces Institute of Pathology*. 3rd ed. New York: Blakiston Division, McGraw-Hill, 1968. 179-184.
- Sheehan, Dezna C., and Barbara B. Hrapchak. *Theory and Practice of Histotechnology*. 2nd ed. St. Louis: Mosby, 1980. 217-218.
- Modifications developed by Newcomer Supply Laboratory.

