

## Iron, Animal Control Slides – Technical Memo

<b>CONTROL SLIDES:</b>	<b>Part 4321A</b>	<b>Part 4321B</b>
	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.

**Intended Use:** To verify histological techniques and reagent reactivity.

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

### CONTROL SLIDE VALIDATION:

#### With Iron, Gomori Prussian Blue Stain Kit:

Solution A: Hydrochloric Acid 20%, Aqueous	<b>Part 9136A/B</b>	<b>Individual Stain Solution</b>
Solution B: Potassium Ferrocyanide 10%, Aqueous	125/250 ml	Part 12087
Solution C: Nuclear Fast Red Stain, Kernechtrot	125/250 ml	Part 13392
	250/500 ml	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:

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.

