

Iron Control Slides – Technical Memo

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| CONTROL SLIDES: | Part 4320A | Part 4320B |
| | 10 Slide/Set | 98 Slide/Set |

PRODUCT SPECIFICATIONS:

Tissue: Positive staining liver or spleen.

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

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 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.

