

Argentaffin Control Slides – Technical Memo

CONTROL SLIDES: **Part 4035A** **Part 4035B**
10 Slide/Set 98 Slide/Set

PRODUCT SPECIFICATIONS:

Tissue: Positive staining small intestine.

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

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

Quality Control Stain: Fontana Masson 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 Fontana Masson Stain Kit:

	Part 9105A
Solution A: Silver Nitrate 10%, Aqueous	250 ml
Solution B: Ammonium Hydroxide 28-30%, ACS	250 ml
Solution C: Gold Chloride 0.2%, Aqueous	250 ml
Solution D: Sodium Thiosulfate 5%, Aqueous	250 ml
Solution E: Nuclear Fast Red Stain, Kernechtrot	250 ml

Individual Stain Solution

Part 13806
Part 1006
Part 11286
Part 1389
Part 1255

APPLICATION:

Newcomer Supply Argentaffin Control Slides are for the positive histochemical staining of argentaffin substances in tissue sections.

PRESTAINING PREPARATION:

- Heat dry sections in oven according to your laboratory protocol.
- All glassware/plasticware must be acid cleaned prior to use.
 - See Procedure Notes #1 and #2.
- Prepare Fontana Silver Working Solution (diamine silver) in an acid cleaned Erlenmeyer flask:
 - Solution A: Silver Nitrate 10%, Aqueous; 25 ml
 - Add Solution B: Ammonium Hydroxide 28-30%, ACS drop by drop, mix with swirling motion until solution clouds, then clears. Use caution to not add excess Ammonium Hydroxide.
 - Add more Solution A: Silver Nitrate 10%, Aqueous drop by drop until clear solution becomes slightly cloudy.
 - Let solution stand for 2-4 hours before use.
 - For use; after standing, filter the solution. Combine 20 ml of this filtered diamine silver solution with 40 ml of distilled water; 60 ml total.

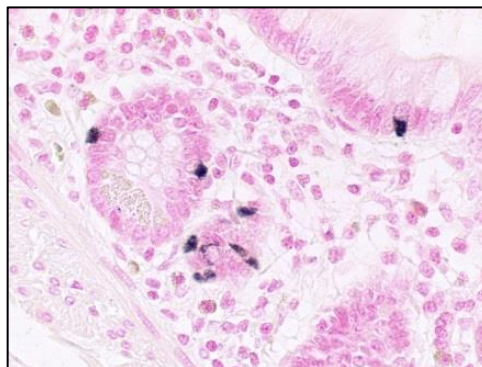
NEWCOMER SUPPLY VALIDATION PROCEDURE:

- 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 #3 and #4.
- Immerse slides in Fontana Silver Working Solution (Step #3) in a 45°- 60°C water bath for 1 hour.
- Check slides microscopically; remove control, rinse in warm distilled water. Confirm that reaction is complete when granules are dark brown and background is colorless.
 - Return to heated Fontana Silver Working Solution for longer incubation if indicated.
- Rinse well in three changes of distilled water.
- Immerse in Solution C: Gold Chloride 0.2%, Aqueous; 10 minutes.
- Rinse well in distilled water.
- Place in Solution D: Sodium Thiosulfate 5%, Aqueous; 5 minutes.
- Rinse well in distilled water.
- Counterstain in Solution E: Nuclear Fast Red Stain, Kernechtrot for 5 minutes.
 - Shake solution well before use; do not filter.
- Rinse well in distilled water.
 - See Procedure Note #5.

- Dehydrate quickly 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:

Melanin and argentaffin granules	Black
Nuclei	Pink-red



PROCEDURE NOTES:

- Acid clean all glassware/plasticware (12086) and rinse thoroughly in several changes of distilled water.
- No metals of any kind should come in contact with silver solutions to prevent precipitation of silver salts. Use plastic forceps (5500) or paraffin coated metal forceps.
- 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, follow manufacturer's recommendation for deparaffinization and clearing steps.

REFERENCES:

- Luna, Lee G. *Histopathologic Methods and Color Atlas of Special Stains and Tissue Artifacts*. Gaithersburg, MD: American Histolabs, 1992. 286-287.
- Sheehan, Dezna C. and Barbara B. Hrapchak. *Theory and Practice of Histotechnology*. 2nd ed. St. Louis: Mosby, 1980. 276-277.
- Modifications developed by Newcomer Supply Laboratory.