CHANDLER'S PRECISION® RETICULUM STAIN KIT PROCEDURE

Item# KTCPRLT  (Revised 04/15/14)

<table>
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<tr>
<th>KIT COMPONENTS</th>
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<tr>
<td>1 Liter 1% POTASSIUM PERMANGANATE</td>
<td>1 Liter 3% POTASSIUM METABISULFITE</td>
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<tr>
<td>1 Liter 3% FERRIC AMMONIUM SULFATE</td>
<td>1 Liter 20% FORMALIN</td>
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<tr>
<td>1 Liter 0.1% GOLD CHLORIDE</td>
<td>1 Liter 5% SODIUM THIOSULFATE</td>
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<tr>
<td>1 Liter NUCLEAR FAST RED STAIN</td>
<td>40 vials TYPE 1 SILVER SOLUTION</td>
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<tr>
<td>1 Liter 3% SODIUM HYDROXIDE</td>
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PRINCIPLE: This kit demonstrates reticulum fibers.

SPECIMEN: Any well fixed paraffin embedded tissue cut at 5 microns; use a strong tissue adhesive!

QUALITY CONTROL: American MasterTech Recommended Control Slide: Reticulum Fibers, CSR0125P

AMMONIACAL SILVER SOLUTION:
Using chemically cleaned glassware or virgin plasticware add one vial of TYPE 1 SILVER SOLUTION to 17ml Distilled water and mix thoroughly. Next add 1 ml of Concentrated Ammonium Hydroxide (Not in Kit) while mixing; the solution will turn light brown, then become colorless. Add 10 ml of 3% SODIUM HYDROXIDE and mix thoroughly; solution should be colorless; if not, add Concentrated Ammonium Hydroxide drop by drop until no precipitate remains. To complete solution, add Distilled water to obtain a total volume of 60 ml and mix thoroughly.

NOTE:
1. Use paraffin-coated forceps for steps 8 through 18.
2. By using Five-Slide Plastic Slide Mailers or Plastic Slide Jars for staining, 20 ml of each reagent can be used per test. (Plastic 5 Slide Mailers and Plastic Slide Jars are available from American MasterTech Scientific, Inc.)
3. Ammoniacal Silver Solution should be prepared using acid cleaned glassware or virgin plasticware!

PROCEDURE:
1. Deparaffinize section using Xylene or Xylene Substitute and hydrate through alcohols.
2. Rinse slide thoroughly in Tap water.
3. Rinse slide in 2 changes of Distilled water.
4. Place slide in 1% POTASSIUM PERMANGANATE for 5 to 10 minutes.
5. Rinse slide in Distilled water.
6. Place slide in 3% POTASSIUM METABISULFITE until section is transparent.
7. Rinse slide in 2 changes of Distilled water.
8. Place slide in 3% FERRIC AMMONIUM SULFATE for 10 minutes.
9. Rinse slide in 2 changes of Distilled water.
10. Place slide in fresh Ammoniacal Silver Solution for 2 to 3 minutes.
11. Rinse slide thoroughly in 2 changes of Distilled water.
12. Place slide in 20% FORMALIN for 1 minute.
13. Rinse slide thoroughly in 2 changes of Distilled water.
14. Place slide in 0.1% GOLD CHLORIDE for 3 to 5 minutes.
15. Rinse slide thoroughly in 2 changes of Distilled water.
16. Place slide in 5% SODIUM THIOSULFATE for 1 to 2 minutes.
17. Rinse slide thoroughly in Tap water.
18. Place slide in NUCLEAR FAST RED STAIN for 3 to 5 minutes.
19. Rinse slide in Tap water.
20. Dehydrate through 3 changes of fresh Absolute alcohol.
21. Clear through 3 changes of fresh Xylene or Xylene Substitute.
22. Coverslip using a permanent mounting media.

RESULTS:
Reticulum Fibers: GRAY TO BLACK
Nuclei, background: PINK TO ROSE


Human Liver