



Reticulum Stain Kit Gordon-Sweet

Solutions Provided:

#SSC1113 – Potassium Permanganate, 1%
#SSC1101 – Oxalic Acid, 1%
#SSC1072 – Ferric Ammonium Sulfate, 2.5%
#SSC1121 – Silver Nitrate, 10%
#SSC1128 – Sodium Hydroxide, 3%
#SSC1045 – Ammonium Hydroxide, 28%
#SSC1074 – Formalin Solution, 10% (Unbuffered)
#SSC1080 – Gold Chloride, 0.2%
#SSC1131 – Sodium Thiosulfate, 5%
#SSC1099 – Nuclear Fast Red

Working solution preparation (prepare just before use):

Ammoniacal Silver Solution

Place 5mL of Silver Nitrate, 10% in an appropriate container. Add Ammonium Hydroxide, 28% drop by drop until the precipitate that forms is dissolved. Be sure not to add any excess Ammonium Hydroxide. Add 5mL Sodium Hydroxide, 3%. Cautiously dissolve the precipitate that forms once again with Ammonium Hydroxide, 28% until only a faint cloudiness remains. Dilute the resulting solution to 50mL with distilled water. Use immediately and discard after each use.

Note: Use extreme care in preparation and use of Ammoniacal Silver Solution. Storing Ammoniacal Silver Solution improperly may cause the formation of explosive compounds. If Ammoniacal Silver Solution is exposed to sunlight, it will explode. Dispose of waste observing all local, state and federal laws.

Conventional Procedure

1. Deparaffinize and hydrate sections through alcohol to distilled water.
2. Oxidize sections in **Potassium Permanganate, 1%** for **5 minutes**.
3. Wash slides in running tap water for **2 minutes**.
4. Place slides in **Oxalic Acid, 1%** for **2 minutes** or until sections are colorless
5. Wash slides in running tap water for **2 minutes**.
6. Place slides in **Ferric Ammonium Sulfate, 2.5%** for **15 minutes**.
7. Wash in several changes of distilled water.
8. Place slides in **Ammoniacal Silver Solution** for **2 minutes**.
9. Rinse slides in distilled water.
10. Place slides in the **Formalin Solution, 10%** for **2 minutes**.
11. Wash slides in running tap water for **3 minutes**.
12. Tone sections in **Gold Chloride, 0.2%** for **10 minutes**.
13. Wash slides in running tap water for **2 minutes**.
14. Place slides in **Sodium Thiosulfate, 5%** for **1 minute**.
15. Rinse slides in distilled water.
16. Counterstain (if desired) in **Nuclear Fast Red** for **5 minutes**.
17. Thoroughly rise slides in distilled water.
18. Dehydrate in **2-3 changes** of 95% alcohol followed by **2-3 changes** of 100% alcohol.
19. Clear and mount with appropriate mounting medium.

Results:

Reticulum Fibers: Black
Background: Pink to Red