

GOMORI'S METHENAMINE SILVER NITRATE FOR FUNGI & PNEUMOCYSTIS CARINII

PURPOSE:	For In Vitro Diagnostic Use: Intended for the qualitative demonstration of fungi and Pneumocystis Carinii in tissue.
PRINCIPLE:	Chromic Acid oxidizes the polysaccharides contained in the cell walls of fungus and other organisms to aldehydes. These aldehydes then reduce silver from the Methenamine Silver to the visible metallic form. Gold replaces some of the silver toning it. A counterstain is applied for contrast.
CONTROL:	Any tissue positive for fungi or Pneumocystis Carinii <i>Control Slides can be purchased from Histology Control Systems. See inside back cover, Item# cs013.</i>
SPECIMEN PREPARATION:	Formalin fixed, paraffin embedded sections cut at 4-6 micrometers
SOLUTIONS:	<ol style="list-style-type: none"> 1. Chromic Acid 5% Aqueous Item# s165 2. Borax 5% Aqueous Item# s128 3. Methenamine Silver Nitrate Stock Solution set (A&B) Item# s240 <i>Working Solution:</i> Must be made fresh. Methenamine Stock Solution A..... 12.5 mL Silver Nitrate Stock Solution B 12.5 mL Distilled Water25.0 mL Borax 5% Aqueous.....2.0 mL 4. Sodium Meta-Bisulfite 1% Aqueous Item# s278 5. Gold Chloride 0.2% Aqueous Item# s202 6. Sodium Thiosulfate 2% Aqueous Item# s280 7. Fast Green Substitute for Light Green 0.2% Aqueous Item# s232 <p><i>Solutions can be purchased separately from Poly Scientific.</i></p>
NOTES:	
REFERENCE:	Luna, Lee G. <u>Histopathologic Methods and Color Atlas of Special Stains and Tissue Artifacts</u> . American Histolabs Inc. Gaithersburg, MD. 1992. p. 213.

STAINING PROCEDURE:

1. A control slide must be run at the same time.
2. Deparaffinize and hydrate to water.
3. 6 changes of distilled water.
4. Place in Chromic Acid 5% Aqueous for 1 hour at room temperature.
5. Wash well in water until all Chromic Acid is removed.
6. Place in Sodium Meta-Bisulfite 1% Aqueous for 1 minute. Wash well.
7. 6 changes of distilled water.
8. Place in Working Methenamine Silver Nitrate Solution for 1/2 hour, incubate at 58-60°C. Use paraffin coated forceps to remove slide from solution. Check under microscope. Fungi should be dark brown to black against a golden brown background. If not adequate, replace in solution and check control every 10 minutes.
9. 6 changes of distilled water.
10. 2 dips in Gold Chloride 0.2% Aqueous.
11. Rinse well in running water.
12. Place in Sodium Thiosulfate 2% Aqueous for 2 minutes to remove excess silver.
13. Wash thoroughly in running water.
14. Counterstain in Fast Green Substitute for Light Green 0.2% Aqueous for 1 minute.
15. Dehydrate in 95% Alcohol, Absolute Alcohol and clear in Xylene, 2 changes each.
16. Mount with Poly Mount (Item# s2153) or any other acceptable mounting medium.

RESULTS:

Fungi.....Black
 Pneumocystis.....Black to Blue Black
 Mucin.....Taupe to Gray
 Background.....Green

Poly Scientific R&D Corp.

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