

PASCUAL'S MODIFICATION OF GRIMELIUS STAIN FOR ARGYROPHIL CELLS (Microwave)

PURPOSE:	For In Vitro Diagnostic Use: Intended for the qualitative demonstration of argyrophil cells.
PRINCIPLE:	Argyrophil cells are capable of absorbing silver but cannot reduce it on their own. Hydroquinone acts as the reducing agent and Sodium Thiosulfate removes any unbound silver.
CONTROL:	Pancreas <i>Control Slides can be purchased from Histology Control Systems. See inside back cover, Item# cs028.</i>
SPECIMEN PREPARATION:	Formalin fixed, paraffin embedded sections cut at 6 micrometers
SOLUTIONS:	<p>1. Silver Nitrate 1% Aqueous Item# s1888 2. Nuclear Fast Red Kernechtrot 0.1% Item# s248</p> <p><u>Reducing Solution:</u> Prepare just before use. Sodium Sulfite Anhydrous 5 g Hydroquinone..... 1 g Distilled Water 100 mL</p> <p><i>Solutions can be purchased separately from Poly Scientific.</i></p>
NOTES:	Do not use any metal. <i>Variations in timing may occur due to the power wattage of the microwave oven. Provided times and power levels are based on 1000 watt microwave oven.</i>
REFERENCE:	Luna, Lee G. <u>Histopathologic Methods and Color Atlas of Special Stains and Tissue Artifacts</u> . American Histolabs Inc. Gaithersburg, MD. 1992. p. 539.

STAINING PROCEDURE:

1. Deparaffinize and hydrate to distilled water.
2. Place slides in plastic coplin jar containing 50 mL of Silver Nitrate 1% Aqueous. Apply cap loosely and place in microwave for 70 seconds.
3. Remove and rinse in distilled water for a few seconds.
4. Heat the 50 mL of Reducing Solution without slides for 30-60 seconds. Remove from microwave and place slides into hot solution for 15-30 seconds or until sections turn tan.
5. Rinse briefly in several changes of distilled water and check slide microscopically. If control is positive continue to step 10. If not, follow steps 6 through 9.
6. Place slides back into plastic coplin jar containing Silver Nitrate 1% Aqueous, cap loosely and heat in microwave for 30 seconds.
7. Remove from microwave and rinse slides in distilled water.
8. Reheat the same reducer for 15 seconds and remove from microwave. Reduce for 1-2 minutes or until color appears.
9. Rinse in tap water for several changes.
10. Counterstain with Nuclear Fast Red Kernechtrot 0.1% for 3 minutes.
11. Rinse in tap water, dehydrate, clear in Xylene and mount with Poly Mount (Item# s2153) or any other acceptable mounting medium.

RESULTS:

Argyrophil Cells..... Black

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