

GOMORI'S METHOD FOR IRON (Microwave)

PURPOSE:	For In Vitro Diagnostic Use: Intended for the qualitative demonstration of ferric iron in tissue.
PRINCIPLE:	Loosely bound ferric iron in tissue will readily bond with Potassium Ferrocyanide in an acid medium forming an insoluble blue pigment (Prussian blue).
CONTROL:	Normal liver <i>Control Slides can be purchased from Histology Control Systems. See inside back cover, Item# cs007.</i>
SPECIMEN PREPARATION:	Formalin fixed, paraffin embedded sections cut at 5 micrometers
SOLUTIONS:	<p>1. Potassium Ferrocyanide 10% Aqueous Item# s1873</p> <p>2. Hydrochloric Acid 20% Aqueous Item# s1832 <i>Working Solution:</i> Potassium Ferrocyanide 10% Aqueous.....25 mL Hydrochloric Acid 20% Aqueous25 mL</p> <p>3. Nuclear Fast Red Kernechtrot 0.1% Item# s248</p> <p><i>Solutions can be purchased separately from Poly Scientific.</i></p>
NOTES:	It should be understood that some iron may be dissolved with the use of this method. This is due to the high percentage of Hydrochloric Acid, which dissolves the iron. <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. 336.

STAINING PROCEDURE:

1. Deparaffinize and hydrate to distilled water.
2. Place 50 mL of Potassium Ferrocyanide – HCl Working Solution in plastic coplin jar (loosely apply cap) and microwave for 25 seconds. Stir and re-microwave for an additional 15 seconds. Stir again and place slides in hot solution for 45 seconds to 1 minute. Check control. If additional staining time is needed place slides back in hot solution until desired intensity is reached.
3. Rinse well in distilled water.
4. Place 50 mL of Nuclear Fast Red Kernechtrot 0.1% in a plastic coplin jar (loosely apply cap) and microwave for 20–25 seconds. Stir and re-microwave for 15–20 seconds. Stir again and place slides in hot solution for 2 minutes. Check control. If additional staining time is needed place slides back in hot solution until desired intensity is reached.
5. Rinse well in distilled water.
6. Dehydrate, clear and mount with Poly Mount (Item# s2153) or any other acceptable mounting medium.

RESULTS:

Iron..... Blue
Background..... Red

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