

**GOMORI'S ONE STEP TRICHROME METHOD FOR CONNECTIVE TISSUE (GREEN)**

<b>PURPOSE:</b>	For In Vitro Diagnostic Use: Intended for the qualitative differentiation of collagen and smooth muscle fibers.
<b>PRINCIPLE:</b>	Post fixation in Bouin's increases the intensity of the stain. The positive nuclei are then stained by an anionic iron hematein lake. An acid dye is applied to the section which binds all acidopholic elements including both collagen and muscle. Collagen is more permeable than cytoplasm and thus the large phosphotungstic molecule cannot displace the acid dye from the cytoplasm. It also acts as a mordant for the Light Green to bind to collagen. Acetic Acid clears the slide of any loosely bound dye.
<b>CONTROL:</b>	Uterus, appendix  <i>Control Slides can be purchased from Histology Control Systems. See inside back cover, Item# cs025.</i>
<b>SPECIMEN PREPARATION:</b>	Formalin fixed, paraffin embedded sections cut at 6 micrometers
<b>SOLUTIONS:</b>	1. Bouin's Fixative Item# s129 2. Weigert's Iron Hematoxylin Solution Set (A & B) Item# s216B <u>Working Solution:</u> Mix equal parts of solutions A & B for use. 3. Gomori's One Step Trichrome with Light Green Item# s1815 4. Acetic Acid 0.5% Aqueous Item# s2015  <i>Solutions can be purchased separately from Poly Scientific.</i>
<b>NOTES:</b>	If fibers are too light, increase time in step 6 by a few minutes.
<b>REFERENCE:</b>	Luna, L.G. "Luna's Modification of Bodian's Method for Axons and Nerve Endings". <u>Amer. J. Medical Technology.</u> 30:355, 1964.

**STAINING PROCEDURE:**

1. Deparaffinize and hydrate to water.
2. Place in Bouin's Fixative in oven at 56°C for 1 hour.
3. Wash well in running water until yellow color disappears.
4. Stain nuclei with Weigert's Iron Hematoxylin Working Solution for 10 minutes.
5. Wash in water.
6. Place in Gomori's One Step Trichrome with Light Green for 15–20 minutes.
7. Place in Acetic Acid 0.5% Aqueous for 2 minutes. If sections are too dark, differentiate in Acetic Acid 1% Aqueous to which 0.7 grams of Phosphotungstic Acid has been added. Rinse in distilled water.
8. Dehydrate in 95% Alcohol, Absolute Alcohol and clear in Xylene, 2 changes each.
9. Mount with Poly Mount (Item# s2153) or any other acceptable mounting medium.

**RESULTS:**

Muscle Fibers .....Red  
Collagen.....Green  
Nuclei.....Blue to Black

*Poly Scientific R&D Corp.*

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