

MALLORY'S PHOSPHOTUNGSTIC ACID HEMATOXYLIN METHOD
FOR CONNECTIVE TISSUE

PURPOSE:	For In Vitro Diagnostic Use: Intended for the qualitative demonstration of muscle cross striations and connective tissue.
PRINCIPLE:	This stain has been referred to as a polychrome stain because one solution produces two major colors. PTAH is believed to function metachromatically, although the exact mechanism is not well known. The components colored red-brown will lose this color with water or prolonged alcohol washes, and dehydration of the section following staining must be rapid.
CONTROL:	Cardiac, skeletal muscle, CNS <i>Control Slides can be purchased from Histology Control Systems. See inside back cover, Item# cs025.</i>
SPECIMEN PREPARATION:	Formalin fixed, paraffin embedded sections cut at 6 micrometers
SOLUTIONS:	1. Zenker Fluid Modified (Zinc Chloride) Item# s294 2. Phosphotungstic Acid Hematoxylin Item# s254 <i>Solutions can be purchased separately from Poly Scientific.</i>
NOTES:	
REFERENCE:	Clark, George. <u>Staining Procedures</u> . 4th Ed. Williams & Wilkins. Baltimore, MD. 1981. pp. 110-111.

STAINING PROCEDURE:

1. Deparaffinize and hydrate to distilled water.
2. Mordant in Zenker Fluid Modified that contains Acetic Acid (5 mL per 100 mL Zenker) for 3 1/2 hours in a 56–60°C oven.
3. Remove and let cool to room temperature.
4. Rinse in distilled water.
5. Stain in PTAH for 90 minutes in a 56–60°C oven.
6. Remove and cool to room temperature.
7. Dehydrate rapidly in 95% Alcohol, Absolute Alcohol and clear in Xylene, 2 changes each.
8. Mount with Poly Mount (Item# s2153) or any other acceptable mounting medium.

RESULTS:

MuscleBlue (cross striations well-defined)
 Collagen.....Red
 Nuclei.....Blue
 Fibrin.....Blue

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