

## PTAH METHOD FOR CENTRAL NERVOUS SYSTEM TISSUE

<b>PURPOSE:</b>	For In Vitro Diagnostic Use: Intended for the qualitative demonstration of central nervous system tissue.
<b>PRINCIPLE:</b>	The 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.
<b>CONTROL:</b>	Any tissue known to contain central nervous system Control Slides can be purchased from Histology Control Systems. See inside back cover, Item# cs031.
<b>SPECIMEN PREPARATION:</b>	10% Buffered Formalin fixed, paraffin embedded sections cut at 6 micrometers
<b>SOLUTIONS:</b>	1. Zenker Fluid Modified (Zinc Chloride) Item# s294 2. Lugol's Iodine Working Solution Item# s234A 3. Potassium Permanganate 1% Aqueous Item# s2200 4. Oxalic Acid 5% Aqueous Item# s2199 5. Phosphotungstic Acid Hematoxylin (PTAH) Item# s254  Solutions can be purchased separately from Poly Scientific.
<b>NOTES:</b>	
<b>REFERENCE:</b>	Luna, Lee G. <u>Manual of Histologic Staining Methods of the Armed Forces Institute of Pathology</u> . 3rd Ed. McGraw-Hill Book Co. New York. 1968. pp. 199-200.

### STAINING PROCEDURE:

1. Deparaffinize and hydrate slides to distilled water.
2. Mordant sections in Zenker Fluid Modified containing Glacial Acetic Acid over night or at 60°C for 1 hour.
3. Wash in running water for 15 minutes.
4. Oxidize in Potassium Permanganate 1% Aqueous for 5 minutes.
5. Decolorize in Oxalic Acid 5% Aqueous for 5 minutes.
6. Rinse well in distilled water followed by running water for 5-10 minutes.
7. Place in PTAH for 24 hours.
8. Place in 95% Alcohol for 1 quick dip.
9. Dehydrate in Absolute Alcohol for 1 quick dip.
10. Clear in Xylene, 2 changes.
11. Mount with Poly Mount (Item# s2153) or any other acceptable mounting medium.

### RESULTS:

Nuclei, Fibrin, Fibroglia, Microglia ..... Blue  
Coarse Elastic Fibers ..... Purplish

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