

**McMANUS' METHOD FOR GLYCOGEN (PAS)**

<b>PURPOSE:</b>	For In Vitro Diagnostic Use: Intended for the qualitative demonstration of glycogen and fungi.
<b>PRINCIPLE:</b>	Periodic Acid oxidizes glycols to aldehydes which bind the Schiff Reagent. Water removes the sulfur from the Schiff Reagent producing the fuchsia color.
<b>CONTROL:</b>	Normal liver <i>Control Slides can be purchased from Histology Control Systems. See inside back cover, Item# cs021.</i>
<b>SPECIMEN PREPARATION:</b>	Formalin fixed, paraffin embedded sections cut at 6 micrometers
<b>SOLUTIONS:</b>	1. Acid Alcohol 1% Item# s104 2. Schiff Reagent Item# s272 3. Periodic Acid 0.5% Aqueous Item# s1860 4. Fast Green Substitute for Light Green Working Item# s232B 5. Harris Hematoxylin Item# s212 6. Ammonia Water Item# s113F  <i>Solutions can be purchased separately from Poly Scientific.</i>
<b>NOTES:</b>	Amyloid infiltration may show a positive reaction.
<b>REFERENCE:</b>	McManus, J.F.A. <u>Stain Techn.</u> 23. pp 99-108, 1948.

**STAINING PROCEDURE:**

1. Deparaffinize and hydrate to distilled water.
2. Oxidize in Periodic Acid 0.5% Aqueous for 5 minutes.
3. Rinse in distilled water.
4. Schiff Reagent for 15 minutes.
5. Wash in running water for 10 minutes for pink color to develop.
6. Harris Hematoxylin for 3-5 minutes or Fast Green Substitute for Light Green Working for a few seconds.  
*Note: Fast Green Substitute for Light Green Working Solution is recommended for counterstaining sections in which fungi are to be demonstrated.*  
*Note: STEPS 7-11 ARE OMITTED WHEN FAST GREEN SUBSTITUTE IS USED FOR THE COUNTERSTAIN.*
7. Wash in running water.
8. Differentiate in Acid Alcohol 1%, 3-10 quick dips.
9. Wash in running water.
10. Dip in Ammonia Water to blue sections.
11. Wash in running water for 10 minutes.
12. Dehydrate in 95% Alcohol, Absolute Alcohol and clear in Xylene, 2 changes each.
13. Mount with Poly Mount (Item# s2153) or any other acceptable mounting medium.

**RESULTS:**

Glycogen, Mucin, Reticulum, Fibrin or Thrombi, Colloid Droplets, Hyalin of Arteriosclerosis, Hyalin Deposits in Glomeruli, Granular Cells in the Renal Arterioles Where Preserved, Most Basement Membranes, Colloid of Pituitary Stalks and Thyroid .....Rose to Purplish Red

Nuclei.....Blue

Fungi.....Red

Background .....Pale Green (with Light Green counterstaining)

*Poly Scientific R&D Corp.*

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