

SOP  
#0

Subject **McManus Periodic Acid Schiff Stain**

Sheet **1** of **1**

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Rev 0	Effective Date	Author
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**1. PURPOSE**

The purpose of Periodic Acid-Schiff staining is to detect glycogen and mucosubstances in tissues to demonstrate the presence of lymphocytes and mucopolysaccharides.

**2. SCOPE**

Demonstrate glycogen, fungus, myucin, reticulum, basement membranes and pituitary basophil granules.

**3. REFERENCE DOCUMENTS**

None

**4. RESPONSIBILITIES**

This SOP can be carried out by someone who has seen it done before and has knowledge on the results of the tissue colors.

**5. MATERIALS and EQUIPMENT**

0.5% Periodic acid (dissolve 0.005g of periodic acid into 60C water and stir to dissolve)  
Schiff's reagent (Newcomer supply – 1371A)  
Hematoxylin (Leica/Fisher – 3801575)  
Clearview (leica – 3803598)  
Bluing reagent (leica – 3802918)  
Oven  
Running distilled water  
Running tap water  
70% ethanol  
95% ethanol  
2x 100% ethanol  
3x xylene  
Coverslips  
Mounting media  
Gloves

**6. SAFETY AND CAUTIONARY NOTES**

**Attached**

**7. PROCEDURE**

**7.1** Bake slides for 15 minutes at 60-65 °C

- 7.2** Deparaffinize slides and hydrate to distilled water
- 7.3** Place into periodic acid for 5 minutes
- 7.4** Rise in distilled water 30 seconds
- 7.5** Place into Schiff's reagent for 15 minutes
- 7.6** Rinse in running tap water to develop pink color for 10 minutes
- 7.7** Place into hematoxylin for 30 seconds
- 7.8** Rinse in distilled water until water runs clear
- 7.9** Place into clearview for 30 seconds
- 7.10** Rinse in distilled water for 30 seconds
- 7.11** Place into bluing reagent for 15 seconds
- 7.12** Rinse in distilled water for 30 seconds
- 7.13** Dehydrate slides in increasing grades of ethanol
- 7.14** Clear slides with three changes of xylene
- 7.15** Mount and coverslip

**8. Results**

Rose to purple-red glycogen, mucin, fungus, basement membrane, pituitary, thyroid colloid  
Blue nuclei