



PAS (Periodic Acid Schiff) Staining Protocol

Used for the detection of glycogen in tissues such as liver, cardiac and skeletal muscle on formalin-fixed paraffin-embedded tissue sections, and may be used for frozen sections as well.

Solutions and Reagents:

0.5% Periodic Acid Solution

Periodic acid ----- 0.5 g
Distilled water ----- 100 ml

Schiff's reagent

Schiff's reagent: Fisher Scientific (cat: 50-301-27)

Test for Schiff's reagent: Pour 10 ml of 10% formalin to a beaker, add a few drops of the Schiff's reagent to be tested. Good Schiff's reagent will rapidly turn a red purple color. A deteriorating Schiff's reagent will give a delayed reaction and the color produced will be a deep blue-purple.

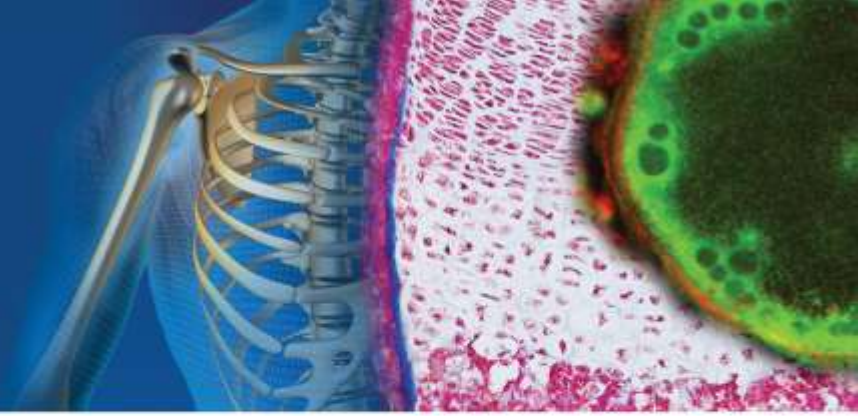
Mayer's hematoxylin

Mayer's modified hematoxylin: Fisher Scientific (cat: NC9220898)

Procedure:

1. Deparaffinize and hydrate to water.
2. Oxidize in 0.5% Periodic Acid solution for **5 minutes**.
3. Rinse in 3 changes of distilled water.
4. Place in Schiff's reagent for **15 minutes** (Sections become light pink color during this step).
5. Wash in tap water for 5 minutes (Sections immediately turn dark pink).
6. Counterstain in Mayer's hematoxylin for **1 minute**.
7. Wash in tap water for **5 minutes then rinse in distilled water**.
8. Dehydrate, coverslip and mount using Xylene based mounting media





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Results:

Glycogen, mucin and some basement membranes ----- Red/ purple
Fungi ----- Red/ purple
Background. ----- Blue

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