

PAS Hematoxylin

Purpose: The purpose is to demonstrate of polysaccharides, neutral mucosubstances, and basement membranes by oxidation of certain tissue elements to aldehydes by periodic acid.

Reagents:

Periodic Acid, .05%

Periodic acid	2.5 g
Distilled water	500 mL

1 N Hydrochloric Acid

Hydrochloric acid, concentrated (specific gravity, 1.19)	83.5 mL
Distilled water	916.5 mL

Add the acid to the water and mix well.

Schiff Reagent

Distilled water	800 mL
Basic fuchsin	4 g
Sodium metabisulfite	4 g
1N hydrochloric acid	80 mL

Heat water to the boiling point. Remove from flame, add basic fuchsin, and again heat solution to the boiling point. Cool the solution to 50°C and then filter. Add 80 mL of 1 N hydrochloric acid, cool completely, and add 4 g of sodium metabisulfite. Let the solution stand in the dark overnight; it should turn light amber. Add 2 g of activated charcoal and shake for 1 minute. Filter the solution and store in the refrigerator. The solution should be stable for 2 to 4 months.

Procedure

1. Prepare .5% periodic acid (for 100 mL of water, 0.5 g of periodic acid)
2. Deparaffinize sections to ddH₂O
3. Incubate slides in the .5% periodic acid for 10 minutes
4. Rinse in ddH₂O 3 times
5. Get Schiff reagent out of the refrigerator and place slides in reagent for 20 minutes.
6. Wash in running tap water for 10 minutes.
7. Stain with Harris Modified Hematoxylin for 2 minutes.
8. Rinse and decolorize in Acid alcohol (1 dip).
9. Wash in tap water for 5 minutes.
10. Dehydrate into Xylene.
11. Coverslip