Diagnostic BioSystems

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Periodic Acid Schiff (PAS) Stain Kit

Catalog Number: KT027

**This data sheet is applicable to all sizes (volume) of product. Actual volume is indicated on vial.

Document #: DS-3021-B
Effective Date: 09/22/2021

Intended Use
For In Vitro Diagnostic Use

Description:
The Periodic Acid Schiff (PAS) Stain Kit is intended for use in histological demonstration of lymphocytes and mucopolysaccharides. The staining pattern of the lymphocytes are helpful in making therapeutic decisions in established cases of lymphocytic leukemia. The PAS reaction in tissue sections is useful for the demonstration of mucopolysaccharides. PAS staining may also be used for the demonstration of fungal organisms in tissue sections.

Fungal Organisms: Magenta
PAS Positive Material: Magenta
Nuclei: Black/Blue

Control Tissue
Tissues fixed in 10% formalin are suitable for use prior to paraffin embedding. Consult references (Kiernan, 1981: Sheehan & Hrapchak, 1980) for further details on specimen preparation.

1. Cut sections, usually 3 to 5 µm and pick the sections up on glass slides.
2. Bake the slides for at least 30 minutes at approximately 70°C.
3. Allow to cool.

Recommended Positive Control

1. Kidney
2. Intestine
3. Liver

Reagents Provided

Kit Contents	Volume	Storage
Periodic Acid Solution	250 mL	2-8°C
Schiff's Solution	250 mL	2-8°C
Hematoxylin, Mayer's (Mod.)	125 mL	15-30°C
Bluing Reagent	125 mL	15-30°C

Storage and Handling
Do not use product after the expiration date printed on vial. If reagents are stored under conditions other than those specified here, they must be verified by the user. Diluted reagents should be used promptly.

Staining Procedure

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. If sections are Zenker-fixed, remove mercuric chloride crystals using iodine and clear with sodium thiosulfate. Rinse in running tap water.
3. Immerse slide in Periodic Acid Solution for 5 minutes (10 minutes for Kidney, skin and diastase digested liver sections).
4. Rinse slide in 4 changes of distilled water.
5. Immerse slide in Schiff's Solution for 15 minutes (30 minutes for Kidney, skin and diastase digested liver sections).
6. Rinse slide in hot running tap water.
7. Rinse slide in distilled water.
8. Stain slide in Hematoxylin, Mayer's (Mod.) for 2-3 minutes.
9. Rinse slide in running tap water for 2-3 minutes.
10. Apply Bluing Reagent for 30 seconds.
11. Rinse in distilled water.
12. Dehydrate through graded alcohols.
13. Clear, and mount in synthetic resin.

Limitations of the Procedure

1. Histological staining is a multiple step diagnostic process that requires specialized training in the selection of the appropriate reagents, tissue selections, fixation, processing, preparation of the slide, and interpretation of the staining results.
2. Tissue staining is dependent on the handling and processing of the tissue prior to staining.
3. Improper fixation, freezing, thawing, washing, drying, heating, sectioning, or contamination with other tissues or fluids may produce artifacts or false negative results.
4. The clinical interpretation of any positive staining, or its absence, must be evaluated within the context of clinical history, morphology and other histopathological criteria. It is the responsibility of a qualified pathologist to be familiar with the special stain and methods used to produce the slide.
5. Staining must be performed in a certified licensed laboratory under the supervision of a pathologist who is responsible for reviewing the stained slides and assuring the adequacy of positive and negative controls.

Precautions

1. Consult local and/or state authorities with regard to recommended method of disposal.
2. Materials of human or animal origin should be handled as biohazardous materials and disposed of with proper precautions.
3. Avoid microbial contamination of reagents. Contamination could produce erroneous results.
4. This reagent may cause irritation. Avoid contact with eyes and mucous membranes.
5. If reagent contacts these areas, rinse with copious amounts of water.
6. Do not ingest or inhale any reagents.
7. Wear protective clothing
8. Use in a chemical fume hood whenever possible.

Troubleshooting
If unexpected staining is observed which cannot be explained by variations in laboratory procedures and a problem is suspected, contact Diagnostic BioSystems Technical Support at (925) 484-3350, extension 2 or techsupport@dbiosys.com.

References

I. Culling CFA, Allison RT, Barr WT.: Cellular Pathology Technique, 4th Edition. Butterworths, Pages 216-220, 1985.
II. Sheenan, D.C., Hrapchak, B.B. Theory and Practice of Histotechnology, 2nd Edition. CV Mosby, Columbus, OH. Pages 164-167, 1980.

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