ScyTek LABORATORIES INC.

Instructions For Use

PAS-IFU

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Periodic Acid Schiff (PAS) Stain Kit

(Modified Lillie's)

Description and Principle

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.

Tissue carbohydrates are oxidized by periodic acid forming aldehydes capable of binding with Schiff's Solution. Visualization of Schiff's is caused by a restoration of the dye's quinoid structure resulting in characteristic magenta staining.

Expected Results

PAS Positive Material:	Magenta
Nuclei:	Black/Blue

Kit Contents

	Storage
1. Periodic Acid Solution	2-8° C
2. Schiff's Solution	2-8° C
3. Hematoxylin, Mayer's	18-25°C
4. Bluing Reagent	18-25°C

Suggested Controls *(not provided)*

Kidney, Intestine, Liver.

Uses/Limitations

For In-Vitro Diagnostic use only.
Do not use if reagents become cloudy or precipitate
Do not use past expiration date.
Use caution when handling reagents.
Non-Sterile
Intended for FFPE sections cut at 5-10µm.
This procedure has not been optimized for frozen sections.
Frozen sections may require protocol modification.

Storage

Mixed storage conditions. Store according to individual label instructions.

Safety and Precautions

Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements.

Procedure:

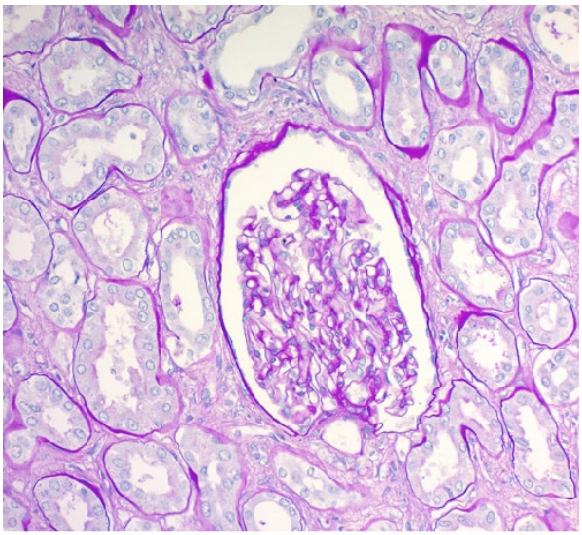
1. Deparaffinize sections if necessary and hydrate to distilled water.

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).



Glomerular basement membrane of Human Kidney stained with Periodic Acid Schiff (PAS) Stain Kit

6. Rinse slide in hot running tap water.

7. Rinse slide in distilled water.

8. Stain slide in Hematoxylin, Mayer's for 1 minute.

9. Rinse slide in running tap water for 2 minutes.

10. Apply Bluing Reagent for 10 seconds.

11. Rinse in distilled water.

12. Dehydrate through graded alcohols.

13. Clear, and mount in synthetic resin.

Note: A crystal precipitate may be seen when staining with small volumes of Schiff's solution on horizontal slides. This precipitate can be removed by rinsing vigorously in warm tap water for 5 minutes or by reapplying Periodic Acid Solution to the tissue and agitating the slide for 30-60 seconds. These modifications should be performed before counterstaining.

References

1. Ma, H, Li, X, Yu, S, et al. Deletion of the miR-25/93/106b cluster induces glomerular deposition of immune complexes and renal fibrosis in mice. J Cell Mol Med. 2021; 25: 7922– 7934. https://doi.org/10.1111/jcmm.16721
2. Liu, Yunshuang, et al. "Variations in MicroRNA-25 expression influence the severity of diabetic kidney disease." Journal of the American Society of Nephrology 28.12 (2017): 3627-3638. https://doi.org/10.1681/ASN.2015091017
3. Jung TH, Park JH, Jeon WM, Han KS. Butyrate modulates bacterial adherence on LS174T human colorectal cells by stimulating mucin secretion and MAPK signaling pathway. Nutrition research and practice. 2015 Aug 1;9(4):343-9.
4. Scheving LA, Zhang X, Garcia OA, Wang RF, Stevenson MC, Threadgill DW, Russell WE. Epidermal growth factor receptor plays a role in the regulation of liver and plasma lipid levels in adult male mice. American Journal of Physiology-Gastrointestinal and Liver Physiology. 2014 Mar 1;306(5):G370-81.
5. Culling CFA, Allison RT, Barr WT.: Cellular Pathology Technique, 4th Edition. Butterworths, Pages 216-220, 1985.
6. 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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