



# Instructions For Use

## SS1047-VO-IFU

116 Page Point Circle - Durham, North Carolina 27703, U.S.A. – Tel. (877) 846-5393 - Fax (877) 817-1716 – [www.cancerdiagnostics.com](http://www.cancerdiagnostics.com) Rev. 3, 8/27/2024

## Periodic Acid Schiff (PAS) for Fungus Stain Kit

### Description and Principle

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

Polysaccharides in fungal cell walls are oxidized by periodic acid to form aldehydes capable of binding with Schiff's Solution. Visualization of Schiff's is caused by a restoration of the bound dye's quinoid structure resulting in characteristic magenta staining. Light green provides a contrasting counterstain without masking stained fungus. Reagent volumes provided can be used to perform an estimated 250 - 375 tests.

### Expected Results

Fungal Organisms:	Magenta
PAS Positive Material:	Magenta
Other Tissue Components:	Green/Blue

### Kit Contents

1. Periodic Acid Solution
2. Schiff's Solution
3. Light Green Solution

### Storage

- 2-8° C
- 2-8° C
- 18-25° C

### Suggested Controls (not provided)

Any fungal infected tissue, 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

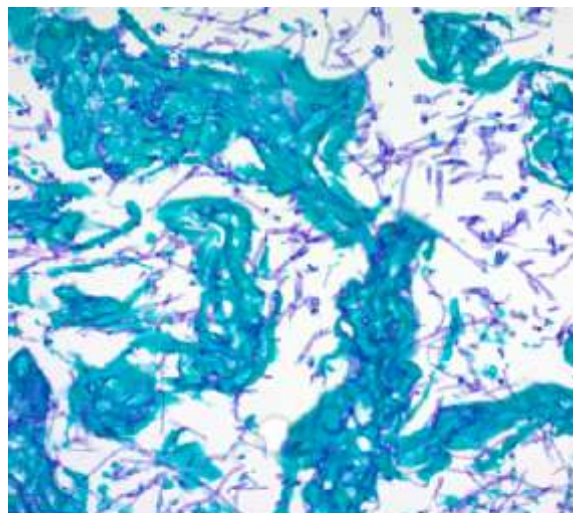
Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements.

### 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 10 minutes.

**Note: If there is unwanted background staining incubate in Periodic Acid Solution for 10 minutes at 60°C.**

4. Rinse slide in 4 changes of distilled water.



Aspergillus infection stained with Periodic Acid Schiff (PAS) for Fungus Stain Kit. Viewed at 400X magnification.

5. Immerse slide in Schiff's Solution for 15-30 minutes.
6. Rinse slide in hot running tap water.
7. Rinse slide in distilled water.
8. Stain slide in Light Green Solution for 2 minutes.
9. Rinse slide using absolute alcohol.
10. Dehydrate in 2 changes of absolute alcohol, 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. Sheenan, D.C., Hrapchak, B.B. Theory and Practice of Histotechnology, 2nd Edition. CV Mosby, Columbus, OH. Pages 164-167, 1980.
2. Culling CFA, Allison RT, Barr WT.: Cellular Pathology Technique, 4th Edition. Butterworths, Pages 216-220, 1985.
3. Murphy, J.K., O'Donohue, L. The diagnostic value and cost effectiveness of routine fungal stains in a dermatopathology service of a district general hospital. Journal of Clinical Pathology. 2004; 57: pages 139-140. Doi: 10.1136/jcp.2003.12104.
4. Barrak, O., Asarch, A., Horn, T. PAS is optimal for diagnosing onychomycosis. Journal of Cutaneous Pathology. October 2010. Volume 37, Issue 10, pages 1038-1040. Doi/10.1111/cup.2010.37.issue-10/issuetoc.