

PERIODIC ACID SCHIFF STAIN

IVD For *in vitro* diagnostic use only

INTRODUCTION

Periodic acid–Schiff (PAS) is a staining method used to detect polysaccharides such as glycogen, and mucosubstances such as glycoproteins, glycolipids and mucins in tissues. The reaction of periodic acid oxidizes the vicinal diols in these sugars, usually breaking up the bond between two adjacent carbons not involved in the glycosidic linkage or ring closure in the ring of the monosaccharide units that are parts of the long polysaccharides, and creating a pair of aldehydes at the two free tips of each broken monosaccharide ring. The oxidation condition has to be sufficiently regulated so as to not oxidize the aldehydes further. These aldehydes then react with the Schiff reagent to give a purple-magenta color. A suitable basic stain is often used as a counterstain.

PAS diastase stain (PAS-D) is PAS stain used in combination with diastase, an enzyme that breaks down glycogen. Alcian blue/periodic acid–Schiff (AB/PAS or AB-PAS) uses alcian blue before the PAS step.

MATERIALS PROVIDED

1. Periodic Acid 1% Aqueous
2. Schiff's Reagent
3. Haematoxylin Gill 3

STORAGE

1. Periodic Acid 1% Aqueous: at 2-8°C.
2. Schiff's Reagent: at 2-8°C.
3. Haematoxylin Gill 3: at room temperature.

PRECAUTIONS

1. For *in vitro* diagnostic use only.
2. Sterilize all biohazard waste before disposal.
3. Avoid contact with skin.
4. Wear protective gloves during use and/or wash thoroughly after use.
5. Avoid breathing the fumes.
6. This product is flammable; keep away from heat, sparks, or flames.

PROCEDURE

1. Bring sections to distilled water.
2. Treat with Periodic Acid reagent for 5 minutes.
3. Rinse well with distilled water
4. Treat with Schiff's reagent for 15 minutes.
5. Wash in running tap water for 5-10 minutes. This step will intensify color reaction.
6. Stain nuclei with Haematoxylin. This step will differentiate nuclei color.
7. Dehydrate, clear and mount as required.

RESULTS

PAS Positive Material	-Magenta
Nuclei	-Blue or Blue/Black

REFERENCES

1. Thomas J. Lawton (27 April 2009). Breast. Cambridge University Press. pp. 55–. ISBN 978-0-521-88159-3. Retrieved 16 November 2010.
2. Jump up^ (Ladanyi et al 2002)
3. Jump up^ C. Hauser (29 August 2005). Mayo Clinic Gastroenterology and Hepatology Board Review. CRC Press. pp. 108–. ISBN 978-0-203-50274-7. Retrieved 16 November 2010.
4. Jump up^ Carson, Freida L.; Hladik, Christa (2009). Histotechnology: A Self-Instructional Text (3 ed.). Hong Kong: American Society for Clinical Pathology Press. pp. 137–139. ISBN 978-0-89189-581-7.



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







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	Product Reference No.		For in-vitro diagnostic use.
	Caution.		Store at
	Read product insert before use.		Number of tests in the pack.
	Lot (batch) number.		Manufacturer.
	Expiry date.		Manufacturer telephone number.
	Manufacturer fax number.		