PAS STAIN

Principle

PAS staining (Periodic Acid-Schiff) is one of the most commonly used staining in histology and is used to evidence the presence of aldehyde groups formed by prior oxidation of carbohydrates.

The basis of the reaction is to oxidize the tissues by periodic acid to increase the number of carbonyl groups (aldehydes or ketones) present in them. Subsequently, the sample is treated with the Schiff reagent which reacts with two contiguous aldehyde groups resulting in a characteristic red-purple coloration.

The PAS Kit consists of all the reagents involved in this staining.

Material

Well-fixed tissues in paraffin sections.

Reagents

Code	Description
256676	PAS Kit for clinical diagnosis (*)
251769	Xylene, mixture of isomers for clinical diagnosis (*)
251085	Ethanol 96% v/v for clinical diagnosis (*)
251086	Ethanol absolute for clinical diagnosis (*)
253681	Eukitt ®, mounting medium for clinical diagnosis

Components of the kit:

Name	Composition
Reagent A	Periodic acid
Reagent B	Schiff Reagent
Reagent C	Potassium meta-Bisulfite solution
Reagent D	Fixing solution
Reagent E	Mayer's Hematoxylin

Procedure

1. Once the cuts have been dewaxed and rehydrated, rinse with distilled water
2. Place 10 drops of Reagent A on the cut. Allow to react for 10 minutes.
3. Rinse with distilled water.
4. Place 10 drops of Reagent B on the cut. Allow to react for 20 minutes.
5. Wash with distilled water.
6. Deposit 10 drops of Reagent C on the cut. Allow to react for 2 minutes.
7. Drain the slide.
8. Without washing, deposit on the cut 10 drops of Reagent D. Allow to react for 2 minutes.
9. Wash with distilled water.

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10. Place 10 drops of Reagent E. on the cut. Allow to react for 3 minutes.
11. Turn in running water for 5 minutes.
12. Dehydrate using the increasing series of alcohols.
13. Rinse with Xylene.
14. Mount with mounting medium.
15. Observe under a microscope.

Results

Nuclei	Violet-black
Simple polysaccharides (glycogen), neutral mucopolysaccharides, Mucoproteins, basement membrane, glycolipids	Red-purple

Technical note

The microscope used should correspond to the requirements of a clinical diagnostic laboratory. If an automatic staining device is used, the operating instructions of the appliance manufacturer and the software must be observed.

Sample preparation

All samples should be treated according to the state of the technology. All samples must be unambiguously labeled.

Diagnostics

Diagnosis should be established only by authorized and qualified persons. Each application should involve appropriate controls to rule out erroneous results.

Storage

The staining solution should be stored at temperatures between +2 and +8 °C.

Expiration

The product stored at the indicated temperature and in a tightly closed container is usable until the expiration date indicated on the package.

Notes on use

To avoid errors, the staining must be carried out by specialized personnel. For professional use only. The national directives on safety at work and quality assurance must be complied with.

Advise on disposal of waste

Solutions used and expired solutions should be disposed of as hazardous waste and local waste disposal regulations must be observed. If further questions are asked about disposal, they may be processed through E-Mail: info.es@itwreagents.com. Inside the EU are valid the requirements based on Council Directive 67/548/EEC on the approximation of the laws, regulations and laws,

regulations and administrative provisions relating to the classification, packaging and labeling of dangerous substances in the relevant version.

Classification of hazardous substances

Observe the classification of dangerous substances on the label and the information on the safety data sheet.

Manufacturer

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(*) Sanitary product for In Vitro Diagnostics

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