

6073-71**Microscopy****Harleco®****Schiff Reagent, Hotchkiss-McManus**

(To be used in Conjunction with PAS kit as Schiff's reagent alternative)



In Vitro Diagnostic Medical Device

Intended Use

The PAS (periodic acid Schiff) reaction is one of the most frequently used chemical methods for histology.

The "PAS staining kit - for detection of aldehyde and mucosubstances" serves the purpose of the histological investigation of sample material of human origin. It is a ready-to-use staining solution.

Principle

In the PAS reaction, the histological specimen material is first treated with periodic acid, resulting in the oxidation of the 1,2-glycols into aldehyde groups. The addition of Schiff's reagent (fuchsin-sulfuric acid) in the second step causes the aldehydes to react to form a brilliant red color. In the end result, the PAS reaction yields a specific color reaction with unsubstituted polysaccharides, neutral mucopolysaccharides, muco- and glycoproteins, and glyco- and phospholipids.

Sample material

Sections of formalin fixed, paraffin embedded tissue (3 - 4 µm thick paraffin sections) or cell smears are used as starting material.

Reagent

Cat. No. 6073-71 500 mL

Harleco® Schiff Reagent, Hotchkiss-McManus

Also required:Cat. No. 534056 500 mL, 4 L, 18 L
XylenesCat. No. 3951 100 mL
Periodic Acid SolutionCat. No. GHS316 500 mL
Hematoxylin Solution, Gill No. 3

Cat. No. R8382 1 GAL

Reagent Alcohol

Cat. No. F1635 25 mL, 500 mL, 4 L
Formaldehyde solutionCat. No. 459836 100 mL, 500 mL, 1 L, 2 L
Ethanol, 200 proof**Sample preparation**

The sampling must be performed by qualified personnel. All samples must be clearly labeled. Suitable instruments must be used for collecting and preparing samples. Follow the manufacturer's instructions for application/use.

Reagent preparation

The solution provided is ready to use.

Staining Procedure**BLOOD, BONE MARROW, OR TISSUE TOUCH PREPARATIONS**

1. Fix air dried blood films for 1 minute at room temperature in Formalin-Ethanol Fixative Solution.
2. Rinse slides 1 minute in slowly running tap water.
3. Immerse slides in Periodic Acid Solution for 5 minutes at room temperature.
4. Rinse slides in several changes of distilled water.
5. Immerse slides in Schiff's Reagent for 15 minutes at room temperature.

6. Wash slides in running tap water for 5 minutes.
7. Counterstain slides in Hematoxylin Solution, Gill No. 3, for 90 seconds.
8. Rinse slides in running tap water for 15–30 seconds, air dry and examine microscopically under oil immersion (900x) lens. Slides may be mounted in toluene or xylene based mounting media.

TISSUE SECTIONS

1. Deparaffinize and hydrate sections to deionized water.
2. Immerse slides in Periodic Acid Solution for 5 minutes at room temperature (18–30°C).
3. Rinse slide in several changes of distilled water.
4. Immerse slides in Schiff's Reagent for 15 minutes at room temperature (18–30°C).
5. Wash slides in running tap water for 5 minutes.
6. Counterstain slides in Hematoxylin Solution, Gill No. 3, for 90 seconds.
7. Rinse slides in running tap water.
8. Dehydrate, clear and mount sections in toluene or xylene based mounting media

Results

PAS positive substances stain pink to red and nuclei are blue. A Diastase (α -Amylase) Extraction slide will have no visible PAS staining of glycogen when compared to the undigested glycogen positive control slide.

Diagnostics

Diagnoses are to be made only by authorized and trained personnel. Valid nomenclature must be used. Further tests must be selected and implemented according to recognized methods. Suitable controls should be conducted with each application.

Storage

15–25 °C. Where aldehydes might be present in the air, bottles can be stored at 2–8°C after

opening to reduce the risk of aldehyde contamination.

Shelf-life

The Hotchkiss-McManus Schiff's reagent can be used until the stated expiry on the packaging. After first opening of the bottle, the contents can be used up to the stated expiry date when stored at 15–25 °C. Where aldehydes might be present in the air, bottles can be stored at 2–8°C after opening to reduce the risk of aldehyde contamination.

The bottles must always be kept tightly closed.

Additional instructions

For professional use only.

The application must be carried out by qualified personnel only.

National guidelines for work safety and quality assurance must be followed.

Microscopes equipped according to the standards must be used.

Protection against infection

Effective measures must be taken to protect against infection in line with laboratory guidelines.

Instructions for disposal

The package must be disposed of in accordance with the current disposal guidelines. Used solutions and solutions that are past their shelf-life must be disposed of as special waste in accordance with local guidelines.

Auxiliary reagents

Cat. No. 64969	Harleco® Krystalon™ Mounting Medium	50 mL, 500 mL
Cat. No. 104699	Immersion oil for microscopy	100 mL, 500 mL

Hazard classification

Cat. No. 6073-71

Please observe the hazard classification printed on the label and the information given in the safety data sheet. The safety data sheet is available on the website and on request.

Literature

1. Hotchkiss RD: A microchemical reaction resulting in the staining of polysaccharide structures in fixed tissue preparations. Arch Biochem 16:131, 1948
2. Sheehan DC, Hrapchak BB: Theory and Practice Histotechnology, 2nd ed. CV Mosby, St. Louis, (MO), pp 52, 164–167, 1980
3. Culling CFA, Allison RT, Barr WT: Cellular Pathology Technique, 4th ed. Butterworths, pp 216–220, 1985
4. Thompson SW: Selected Histochemical and Histopathological Methods, CC Thomas, Springfield, (IL), pp 520–539, 1966

Harleco® is a registered trademark of Merck KGaA, Darmstadt, Germany

Krystalon™ is a trademark of Merck KGaA, Darmstadt, Germany



Consult instructions
for use



Manufacturer



Catalog number



Batch code



Caution, consult
accompanying documents



Use by
YYYY-MM-DD



Temperature
limitation

Status: 2022-05-10

20531163



EMD Millipore Corporation
400 Summit Drive
Burlington, MA 01821, USA
Tel. +1-978-715-4321