

# **RETICULIN FIBER STAIN**

## **Principle**

Reticulin is a network of fine fibers that support tissues. The reticulin kit serves to visualize its existence through an impregnation with a silver salt. The tissue is first oxidized, sensitized with iron alum, which is replaced by a silver salt. The silver is then reduced with a solution of formaldehyde that reveals the metallic silver. Finally, a solution of sodium thiosulfate dissolves the excess of unreduced silver. If the process is done correctly, the bottom of the preparation will be almost colorless and the reticulin fibers will be stained black-brown and the collagen yellow The Reticulin Kit is composed of all the reagents involved in this staining.

#### **Material**

Tissue cuts are either included in paraffin blocks or on cuts obtained from a freezing microtome.

#### **Reagents**

Code	Description
255115	Reticulin Kit for clinical diagnosis <sup>(*)</sup>
251085	Ethanol 96% v/v for clinical diagnosis <sup>(*)</sup>
251086	Ethanol absolute for clinical diagnosis (*)
251769	Xylene, mixture of isomers for clinical diagnosis (*)
253681	Eukitt <sup>®</sup> , mounting medium for clinical diagnosis

#### Component of the kit

Name	Composition
Reagent A	Potassium Permanganate Solution
Reagent B	Sulfuric acid solution
Reagent C	Oxalic acid solution
Reagent D	Iron Sulfate 12-hydrate solution
Reagent E	Ammonia complex silver solution
Reagent F	Formaldehyde solution
Reagent G	Sodium Thiosulfate 5-hydrate solution

#### Procedure

1. Dewax and hydrate the preparation until it reaches the distilled water.

2. Place on the section 5 drops of Reagent A and 5 drops of Reagent B, leave to act 5 minutes.

- 3. Rinse with distilled water.
- 4. Place on the section 10 drops of Reagent C, leave to act for 3 minutes.



- 5. Wash with distilled water.
- 6. Place on the section 10 drops of Reagent D, leave to act for 2 minutes.
- 7. Rinse with distilled water.
- 8. Repeat the washing operation again.
- 9. Impregnate the section with 10 drops of Reagent E, leave to act 2 minutes.
- 10. Wash with distilled water.
- 11. Reveal by depositing 10 drops of Reagent F for 2 minutes.
- 12. Wash with distilled water.
- 13. Deposit over 10 drops of Reagent G, leave to act for 4 minutes.
- 14. Rinse with tap water for 5 minutes.
- 15. Dehydrate in the ascending series of alcohols,
- 16. Rinse with Xylene.
- 17. Mount with mounting medium.
- 18. Observe under a microscope.

#### **Results**

Reticulin	Black
Collagen	Yellow

#### **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.

# <u>Storage</u>

The staining solution should be stored at +2 to + 8  $^{\circ}$  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

In order 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: <u>info.es@itwreagents.com</u>. 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

