

MASSON TRICHROMIC STAINING

(with aniline blue)

Principle

Masson Trichrome Kit is indicated for connective tissue staining. It colors gametes, nuclei, neurofibres, neuroglia, collagen and keratin.

Collagen fibers are the most frequently found elements in connective tissue. They have a basic support function and are synthesized by multiple cellular elements of the organism, among them fibroblasts.

All the techniques for staining collagen fibers that are classically grouped under the name of trichrome stains, stain type I collagen, which forms the thick collagen fibers in the extracellular spaces and organic stroma. One of the factors that most influence in the staining is the different degree of permeability that the structures offer to the passage of the dye.

In the Mason Trichrome staining with Aniline Blue, four different dyes are used:

- Iron hematoxylin according to Weigert for the nucleus.
- Picric acid for erythrocytes.
- Mixture of acid dyes for the cytoplasm.
- Aniline blue for connective tissue.

Masson Trichrome Kit is composed of all the reagents involved in this staining.

Material

Connective tissue, muscle, skin, nerve tissue, among others, well fixed, in paraffin sections.

Reagents

Code	Description
256692	Masson's Trichrome Kit for clinical diagnosis ⁽¹⁾
251085	Ethanol 96% v/v for clinical diagnosis ⁽¹⁾
251086	Ethanol absolute for clinical diagnosis ⁽¹⁾
251769	Xylene, mixture of isomers for clinical diagnosis ⁽¹⁾
253681	Eukitt [®] , mounting medium for clinical diagnosis

Components of the kit

Name	Composition
Reagent A	Hematoxylin solution B according to Weigert
Reagent B	Hematoxylin solution A according to Weigert
Reagent C	Picric acid alcoholic solution
Reagent D	Biebrich's scarlet solution
Reagent E	Phosphomolibdic acid solution
Reagent F	Aniline blue solution

Procedure

1. Deparaffinize and hydrate the histological section until distilled water is reached.
2. Deposit 6 drops of Reagent A onto the preparation.
3. Add 6 drops of Reagent B. Allow 10 minutes to react.
4. Without washing, drain the preparation and place 10 drops of Reagent C. Allow 4 minutes to react.
5. Rinse quickly (3-4 seconds) with distilled water.
6. Dispense 10 drops of Reagent D. Allow to react 4 minutes.
7. Rinse with distilled water.
8. Dispense 10 drops of Reagent E. Allow 10 minutes to react.
9. Without washing, drain the preparation and deposit 10 drops of Reagent F. Allow to react 5 minutes.
10. Wash with distilled water.
11. Dehydrate using the increasing series of alcohols.
12. Immerse 1 minute in absolute ethanol.
13. Rinse with Xylene.
14. Mount with mounting medium.
15. Observe under a microscope.

Results

Nuclei and gamets	Black
Cytoplasm, keratin, muscle fibers, acidophilic granulations	Red
Collagen, mucus, basophilic pituitary granulations	Blue
Hypophysis delta cell granules	Blue-violet
Eritrocitos	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.

Storage

The staining solution should be stored at temperatures between +15 and + 25 °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

