




Masson's trichrome green light Goldener technical information  
 Security card code 14-119  
 Product code 14-119  
 Pack 1kit. Number of tests 100  
 Stability of product properly conserved at 15-20°C 24 months  
 CND code W01030799

Produce in Italy by  
 DDKItalia S.r.l  
 Via Marche, 19 • 27029 Vigevano (Pv)  
[info@ddkitalia.com](mailto:info@ddkitalia.com) • [www.ddkitalia.com](http://www.ddkitalia.com)

in case of emergency UE number		112
in case of emergency UK number		999
En cas d'urgence Suisse		145

## Principle.

The Masson-Goldner staining method is a trichrome stain that is primarily used for imaging connective-tissue structures in organs. It is a ready-to-use staining kit. Using a combination of three different staining solutions, muscle fibers, collagenous fibers, fibrin and erythrocytes can be selectively visualized. The original methods were primarily used to differentiate collagenous and muscle fibers. The stains used have different molecular sizes and enable the individual tissues to be stained differentially. The Masson-Goldner staining technique can be carried out using formalin fixed material. Subsequent to staining the nucleus with Weigert's iron hematoxylin, components such as muscle, cytoplasm and erythrocytes are stained with azophloxin and orange G solution. Connective tissue is then counter stained using light green SF solution.

## Method

Decerate slides in Xylene, 2 changes, 2 minutes each. Place in absolute alcohol, 2 changes, 2 minutes each; 95% alcohol, 2 changes, 2 minutes each. Then rinse in distilled water.

Mordant in Bouin's solution for 1 hour at 56°C, or overnight at room temperature, if formalin fixed.

Cool and wash in running tap water until yellow color disappears. Rinse in distilled water.

Place in Weigert's haematoxylin for 10 minutes. Wash in running tap water for 10 minutes. Rinse in distilled water.

Stain in ponceau acid fuchsin for 5 minutes. Wash in acetic acid 1%.

Place in phosphomolybdic acid-orange G solution until collagen is decolorized. Rinse in acetic acid 1% for 30 seconds.

Stain in light green stock solution for 5 minutes. Rinse in acetic acid 1%, for 5 minutes.

Blot sections but do not allow to dry.

Dip quickly in absolute alcohol. Dehydrate slides in 95% alcohol and absolute alcohol 3 changes each. Clear in Xylene, 3 changes. Mount with DdMount.

## Results

Nuclear chromatin	brownish black
Cytoplasm	bright red
Erythrocytes	orange
Muscle	red
Collagen	green

## Reagents

A)	Weigert's iron hematoxylin A	30 ml
B)	Weigert's iron hematoxylin B	30 ml
C)	Picric acid alcoholic stable solution	30 ml
D)	Masson ponceau acid fuchsin	30 ml
E)	Phosphomolybdic acid solution	30 ml
F)	Light green Goldner	30 ml

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\* Technical note: staining time vary according to age, types of solutions, thickness of sections, et. When Gill (code 09-178) modified solution is used, get the best result, staining time (maximum 1-5 minutes), for best change in color, wash quickly in tap water, and then in Scott acidulated solution, (code 00-136). For sections fixed in Bouin, we recommend the use of haematoxylin modified acid AB (code 09-183). Please note the alcoholic loses eosin stain with the use, of the days are stretched over time colouring. If you are using purified eosin, check the time, and possibly diluted in ethyl alcohol 96°C, if the cytoplasmic staining was too strong. Before use, filter the following solutions; alcoholic eosin, eosin phloxine; Harris haematoxylin, Gill's haematoxylin. The acidified aqueous solution of eosin is prepared by slowly adding glacial acetic acid.

\* Risk and Safety Statements outside the EU.

The eosin solution in alcohol is flammable and harmful. Harmful by inhalation, in contact with skin or if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with the skin or by ingestion. Irritating to eyes, respiratory system and skin. Keep away from sources of ignition - No smoking. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical attention immediately (show the label where possible). Target organs: eyes and nerves. Eosin in aqueous solution. Caution: substance not yet fully tested. Avoid contact and inhalation of the solution of Harris haematoxylin. Organs: heart and nerves. Solutions based hemallum are harmful. Harmful if swallowed. Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention. Wear suitable protective clothing. Organs affected: liver and kidneys. In case of accident or if you feel unwell, seek medical attention immediately (show the label where possible).

\* Risk and Safety Statements (U.E.)

The eosin solution in alcohol is highly flammable and harmful. Highly flammable. Harmful by inhalation, in contact with skin or if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with the skin or by ingestion. Keep away from sources of ignition - No smoking. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical attention immediately (show the label where possible). Eosin in aqueous solution. Caution: Substance not yet fully tested. Solution of haemallum. Do not breathe vapors. Avoid contact with skin and eyes. Gill haematoxylin Solutions are harmful. Harmful if swallowed. Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention. Wear suitable protective clothing.

**Endnotes**

- 1 The timing suggested in the leaflet are approximate and may vary according to your specific needs. If they are used intensively, for staining solutions may lose their dyes, so it is necessary to extend the time of staining solutions, or replace with new products.
2. Include positive control slides in each session.
3. Some hydraulic systems deliver acidic water, unsuitable for use for the part of the procedure for the blue coloration. If tap water is acidic, instead using a dilute alkaline solution, for example, water buffered by Scott.
4. The presence of purple or red-brown nuclei a blue color indicates unsatisfactory.
5. If you over-eosin staining, nuclear staining may be masked. If done correctly, with eosin staining shows a three-tone effect. To increase the differentiation of eosin, extend the time of immersion in alcohol, or use a first alcohol with a higher water content. You can adjust the times of immersion in alcohol to obtain an adequate eosin staining.
6. We do not recommend the addition of stock solution in the working solutions of haematoxylin and eosin.
7. Avoid excessive drag (carryover) of water solutions in alcoholic eosin.
8. The data generated by this procedure are to be used only to support the diagnosis and should be evaluated in conjunction with other tests and diagnostic data

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