

**IVD** dispositivo medico-diagnostico in vitro

Gomori trichrome technical information

Technical card code 14-159

Product code 14-159

Pack 1kit. Number of tests 100 or on request




Stability of product properly conserved at 15-20°C 24 months

Produce in Italy by

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|                                |   |     |
|--------------------------------|---|-----|
| in case of emergency UE number |  | 112 |
| in case of emergency UK number |  | 999 |
| en cas d'urgence Suisse        |  | 145 |

## Principle.

The "one step trichrome stains", of which there are many variants, all rely on molecular size competition for tissue reactive sites in conditions of controlled pH. For the correct colour balance to be achieved it may be necessary to slightly alter the concentration of the two dyes, this is preferred to attempting to differentiate the end result, the staining procedure combines the plasma stain (chromotrope 2R) and connective fiber stain (fast green FCF) in a phosphotungstic acid solution to which glacial acetic acid has been added. Specimen required. Snap frozen human striated muscle. (Use the isopentane freezing method previously described.) Fixation: none, use snap frozen tissue. Technique: cut 10 - 16 micron (12 µm) sections in cryostat from snap frozen biopsy.

## Method

1. Place the coverslip with section in a ceramic staining rack.
2. Immerse sections in Harris haematoxylin for 5 minutes.
3. Wash with tap water until the water is clear.
4. Immerse into Scott water for couple of minutes until haematoxylin turn to dark violet.
5. Immerse sections in Gomori trichrome stain for 10 minutes.
6. Differentiate using 0.2% acetic acid. A few dips should be sufficient.
7. Immerse rack with sections directly into 95 % alcohol
8. Continue to dehydrate in ascending alcohol solutions (95% x 2, 100% x 2). Clear with xylene (3 - 4 x).
9. Mount with DdMount.

## Results:

|                                     |  |
|-------------------------------------|--|
| Nuclei:                             | Red-purple                             |
| Normal muscle myofibrils:           | Green-blue with distinct A and I bands |
| Intermyofibrillar muscle membranes: | Red                                    |
| Interstitial collagen:              | Green                                  |

## Note

Section can be stain before haematoxylin with Celestine blue for five minutes (subjective).

## Reagents:

|                           |         |
|---------------------------|---------|
| 1. Harris haematoxylin    | 30 ml   |
| 2. Scott water            | 2x30 ml |
| 3. Gomori trichrome stain | 30 ml   |
| 4. 0.2% acetic acid       | 30 ml   |

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\* Notes. Distilled water or tap water can be used for rinsing and moisturizing. Always check the pH of your tap water and chlorine levels before proceeding with any type of biological tissue and stain. 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.

\* 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 hemallum. Do not breathe vapours. 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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