

Ferric haematoxylin for phospholipids (for research purpose only) technical information

Technical card code 14-151

Product code 14-151

Pack 1kit. Number of tests 50 or on request

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

Produce in Italy by

DDK Italia S.r.l

Via Marche, 19 • 27029 Vigevano (I)

[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.** Phospholipids have been identified in nuclei by optical microscopic histochemical methods but these methods have been rarely applied at the electron microscopic level, since the reaction products are not electron dense. The ferric haematoxylin method, developed for the detection of phospholipids at the optical microscopic level, has been applied also to electron microscope, and the acid haematin reaction for light microscopy has been used for the ultra structural identification of chromatin-associated phospholipids.

**Fixation and sections.** Ideally unfixed cryostat sections; otherwise short fixed frozen sections

#### Procedure

1. Extract one section in chloroform - methanol for 10 minutes at room temperature.
1. Extract the other with acetone dry at 4°C for 10-15 minutes.
2. Fix both sections in acetate formalin for 30 minutes. 3. Rinse in distilled water
4. Stain in the ferric haematoxylin solution for 7 minutes (to be reconstituted).
5. Wash in distilled water
6. Dip several time in 0,2% HCL.
7. Wash in tap water
8. Dehydrate in acetone
9. Clear in xylene mount with DdMount

#### Results

Phospholipids: blue  
 Nuclei: blue  
 The stain should not appear in the sections extracted with chloroform methanol

#### Reagent

Solution A for ferric haematoxylin	3x30 ml
Solution B for ferric haematoxylin	30 ml
Chloroform - methanol solution	2x30 ml.
HCL solution	2x30 ml

#### Reconstitution

Mix tree part of B with one of C into a beker dissolves by gently heat. Do not boil.

\* 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.

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## \* 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 hemallum. 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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