

Grimelius for argyrophilia technical information
 Technical card code 14-112
 Product code 14-112
 Pack 1kit. Number of tests 100 or on request
 Stability of product properly conserved at 4°C 12 months

Produce in Italy by
 DDKItalia S.r.l.
 Via Marche, 19 • 27029 Vigevano (I)
info@ddkitalia.com • www.ddkitalia.com

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

Application. To show argyrophilic substances in tissue sections.

Principle. This method is based on the intrinsic capacity of some tissue components to bind to silver halides. These are then revealed by a photographic process which reduces silver salts to metallic silver. Selectivity of method is due to a low concentration of silver salts in working solution. A second short impregnation is used to precipitate more silver on the sites where it has already set down and therefore to make them blacker.

Warning

Use only perfectly clean glassware. Do not touch silver solution with tweezers and other metallic objects. Use excellent distilled or deionised water. Do not use fixatives containing heavy metal salts.

Method

- 1) Bring section to distilled water.
- 2) In a graduated cylinder put 40 ml of distilled water, add 10 drops of reagent A and 10 drops of reagent B; pour this solution in a coplin Jar of 50 ml and incubate it in oven for 3 hours at 60 °C.
- 3) Extract the coplin jar from the oven and wait 5 minutes: extract and drip the slide and without washing put on the section 10 drops of reagent C and 10 drops of reagent D: leave them act 5 minutes.
- 4) Wash in distilled water and put on the section 10 drops of reagent G: leave to act 5 minutes.
- 5) Wash in distilled water, put 10 drops of reagent E: leave to act 10 minutes.
- 6) Without washing, drain the slide and put on the section 10 drops of reagent F: leave to act 5 minutes.
- 7) Wash the slide and put on the section 10 drops of reagent G: leave to act 5 minutes.
- 8) Rinse in distilled water; dehydrate through ascending alcohols, clear in xylene and mount.

Results

Argyrophilic granules: from light brown to black

Reagents

A - Silver nitrate solution	30 ml
B - Concentrate acetate buffer pH 5,6 solution	30 ml
C - Hydroquinone solution	30 ml
D - Sodium sulphite solution	30 ml
E - Silver nitrate buffered solution	30 ml
F - Reducing solution	30 ml
G - Fixing solution	30 ml

* 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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