

Alcian blue pH 2,5 technical information
 Security card code 14-102
 Product code 14-102
 Pack 1kit. Number of tests 100
 Stability of product properly conserved at 15-20°C 24 months
 CND code W01030799

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

Application. To show and differentiate acid mucopolysaccharides in tissue sections.

Principle

Alcian dyes belong to the cuprophthalocyanine group; they bind polyanions of acid mucopolysaccharides through saline bounds. In this method, a sodium tetraborate solution transforms the dye into Monastral blue pigment, which is insoluble and can therefore be further manipulated without spreading in the tissue (Alcian blue-PAS). Alcian blue reacts with polyanions whose components are sulphuric and carboxylic radicals (phosphate radicals of nucleic acid do not react). As result, acid mucins only are stained.

Method for pH 2,5

- 1) Bring section to distilled water.
- 2) Place in acetic acid solution for 3 minute.
- 3) Stain in alcian blue solution for 30 minute.
- 4) Wash in running water for 10 minutes.
- 5) Rinse in distilled water.
- 6) Counterstain in filtered nuclear fast red solution for 5 minute.
- 7) Wash in running tap water for 1 minute.
- 8) Dehydrate through ascending alcohols 2 change each for 2 minute. Xylene two change of two minutes.
- 9) Mount with DdMount.

Results

Weakly acidic sulphate mucosubstance, hyaluronic acid, and sialomucins:

dark blue

Nuclei:

red to pink

Cytoplasm:

pale pink

Reagents

A - Acetic acid solution	30 ml
B - Alcian blue pH 2,5 solution	30 ml
C - Nuclear fast red solution	30 ml

References

Lev R. Spicer SS. Specific staining of sulphate groups with Alcian Blue at low pH. J. Histochem Cytochem. 1964;12:309

* Technical's 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 haemallum. 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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