

Alcian blue pas (Mowry) technical information
 Technical card code 14-103
 Products code 14-103
 Number of tests 100 test
 Stability of reagents properly conserved at 4°C 12 months
 CND code W01030799

Made 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.

Integrated method to show acid mucins, neutral mucins and carbohydrates in tissue sections.

Principle

In the first part of the procedure, sections are treated with alcian blue and acid mucins are stained. Acid mucins and dye form the insoluble compound "Monastral blue" and therefore will not be affected by the second part of the procedure, when PAS reaction will stain only neutral mucins and glycogen. (Glycogen will be stained only if section has not been previously treated with diastase enzymatic digestion).

Method

- 1) Bring section to distilled water.
- 2) Briefly wash section with reagent (1).
- 3) Stain section with reagent (2) for 120 minute.
- 4) Wash quickly with distilled water.
- 5) Briefly wash section with reagent (1).
- 6) Wash with tap water.
- 7) Wash quickly with distilled water
- 8) Immerse section into reagent (3) for 10 minute.
- 9) Wash with tap water for 5 minutes.
- 10) Counterstain with reagent (4) for 10 minute.
- 11) Wash with tap water for 2 minutes.
- 12) Deep 3 times of 1 minutes each into solution (5).
- 13) Blue in running tap water for 5 minutes.
- 14) Dehydrate with alcohols 95°C 30 second.
- 15) Dehydrate with absolute alcohols 95°C 3 minutes two times.
- 16) Xylen 5-10 minutes
- 17) Mount with DdMount

Results

PAS positive substances:	magenta red
Acid mucopolysaccharides:	turquoise-blue
Some epithelial mucins and cartilage:	from purple to dark blue

Reagents

1) Acidulate water	30 ml
2) Alcian blue Mowry	30 ml
3) Periodic acid solution	30 ml
4) Schiff's Reagent according to Hotchkiss Mc Manus	30 ml
5) Sodium bisulphite solution	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'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. Follow normal precautions for laboratory reagents. Dispose of waste according to regulations at the local, regional or national level. Refer to Data Sheet Material Safety Data for updated information on risks, hazards and safety associated with the use of these products.

* 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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