

DESCRIPTION

This method is used for identifying elastic fibers in tissues such as skin, aorta, etc. on formalin-fixed, paraffin-embedded sections, and may be used for frozen sections as well. The elastic fibers will be stained blue-black and background will be stained yellow.

FIXATION

10% Formalin.

SECTION

Paraffin sections at 5 µm.

KIT CONTAINS

500ml each of the following:

- Solution A - 5% Alcoholic Hematoxylin
- Solution B - 10% Aqueous Ferric Chloride
- Solution C - Iodine Solution
- Solution D - 5% Sodium Thiosulphate
- Solution E - Counterstain I
- Solution F - Counterstain II

VERHOEFF'S WORKING SOLUTION

The working staining solution should be made up fresh for best results. It will not stain satisfactorily if it is kept more than one working day. Prepare the working solution by adding in order the following reagents:

Solution A	20 ml
Solution B	8 ml
Solution C	8 ml

Mix the above amounts (or needed proportions thereof) well. Solution should be jet black. Use immediately and discard after use.

2% AQUEOUS FERRIC CHLORIDE (PREPARE FRESH)

Solution B	10 ml
Distilled Water	50 ml

PROCEDURE

1. Deparaffinize and hydrate slides to distilled water.
2. Stain in Verhoeff's solution for 1 hour, tissue should be black.
3. Rinse in tap water with 2-3 changes.
4. Differentiate in 2% ferric chloride for 1-2 minutes.
5. Stop differentiation with several changes of tap water and check microscopically for black elastic fiber staining and gray background. It is better to slightly under differentiate the tissue, since the subsequent Van Gieson's counterstain can sort of extract the elastic stain.
6. Wash slides in tap water.
7. Treat with Solution D for 1 minute, discard solution.
8. Wash in running tap water for 5 minutes.
9. Place in Counterstain I, for 3-5 minutes. Only use Counterstain II in place of a Counterstain I when staining nervous tissue.
10. Dehydrate quickly through 95% alcohol, 2 changes of 100% alcohol.
11. Clear in 2 changes of xylene for 3 minutes each.
12. Coverslip with resinous mounting medium.

VERHOEFF VAN GIESON ELASTIN STAIN KIT

RESULTS

Elastic fibers	Blue-black to black
Nuclei	Blue to black
Collagen	Red
Other tissue elements	Yellow

POSITIVE CONTROLS

Aorta, Kidney, Myometrium.

SAFETY

Work in a well ventilated area, wear gloves (nitrile), lab coat and goggles. Avoid contact and inhalation. Picric acid: can become explosive if allowed to dry out. Toxic through skin exposure.

STORAGE AND HANDLING

Store at room temperature. Glove, chemical goggles, and fume hood.

ORDERING INFORMATION

Cat. #	Description	Sizes
25089	Verhoeff Van Gieson Elastin Stain Kit	500ml Kit

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