AFOG  
Acid Fucsin Orange G  
04 – 021002

**Expected aim**  
Product for the preparation of cyto-histological samples for optical microscopy.

**Application**  
Standard procedure for visualisation of glomerular protein deposits in kidney biopsy; recommended fixative: BOUIN

**Principle**  
In this method 3 different dyes are used: Weigert hematoxylin for nuclear staining, orange G for cytoplasm and aniline blue for a selective collagen staining. Selectivity in this procedure is due to different degrees of affinity between dyes and tissue macromolecules. A central role is played by phosphomolibdic acid which acts as a bound between tissue structures (collagen fibrils, cell membranes) and aniline blue (amphoteric dye). Orange G, which is the second component of AFOG solution, has no affinity to phosphomolibdic acid and is thus used to stain all remaining structures. Acid fuchsin stains selectively glomerular protein deposits.

**Method**

1) Bring section to distilled water.
2) Put on the section 5 drops of reagent A and 5 drops of reagent B (in this order): leave to act 10 minutes.
3) Running tap water 5 minutes.
4) Put on the section 10 drops of reagent C: leave to act 5 minutes.
5) Wash in distilled water.
6) Put on the section 10 drops of reagent D: leave to act 5 minutes.
7) Wash in distilled water.
8) Dehydrate rapidly in ascending alcohols and stop for 1 minute in the last absolute ethanol. Clear in xylene and mount.

**Results**

Collagen fibrils: blue  
Nuclei: black  
Erythrocytes, cytoplasm: pink-orange  
Elastic fibrils: pale pink or unstained  
Glomerular protein deposits: lively red

**Reagents**

A) Weigert's iron hematoxylin, A solution: 18 ml  
B) Weigert's iron hematoxylin, B solution: 18 ml  
C) Phosphomolybdic acid solution: 30 ml  
D) AFOG solution: 30 ml

**Warning and precaution**

The product must be used exclusively by specialized technical operators. Read with attention the information written on the label (dangerous symbols, risks and safety phrases). Consult always the safety data sheet where the information about the risks of the preparation, precautionary measures during use, first aid and disposal are available. Do not use if primary packaging is damaged.

**Storage**

Store the preparation at room temperature. Keep the containers tightly closed.

Stability
After the first opening, the product is usable until the expiry date, if correctly stored.

Disposal
Hazardous preparation: observe all state and local environmental regulations regarding waste disposal.

References

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