FOUCHET VAN GIESON
for bilirubin
04 - 121872

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

Application
For demonstration of bilirubin and collagen in tissue sections.

Principle
The bilirubin is the derived without iron of the biliverdin. In its turn the biliverdin is the result of the degradation of the hemoglobin.
The reaction happens mainly in the bony marrow, the spleen and the liver.
In the liver of patients with obstructive icterus, the bilirubin appears as thrombi in the biliary canaliculus and granules in hepatocytes and cytoplasm of the cells of Kupfer. The pigment is insoluble in water and in the aqueous fixative, but it can change to the green colour in case of extended formalin fixation.
The colour developed from the reaction of Fouchet has had to one strongly oxidoreduction of the complex and consequent transformation in biliverdin.

ATTENTION
False positive reactions may be excluded with Perl's reaction, always negative for bilirubin.

Method
1) Bring sections to distilled water.
2) Put on the section 5 drops of Reagent A and 5 drops of Reagent B: let them work 5 min.
3) Rinse in distilled water.
4) Put on the section 10 drops of Reagent C, let it work 7 min.
5) Without rinsing, air - dry 5 min.
6) Dehydrate in absolute alcohol, clear in xylene and mount.

Results
Bilirubin ..................................................................................................................... Green
Collagen ..................................................................................................................... Red
Cytoplasm, muscle, cornified epithelium and neuroglia fibers ........................................................... Yellow

Reagents
A) Trichloroacetic acid solution ................................................................. 30 ml
B) Ferric chloride solution .............................................................................. 30 ml
C) Van Gieson Picrofuchsin ........................................................................... 30 ml

Warning and precaution
The product must be used exclusively by specialized technical operators.
The product is classified as hazardous.
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

- Fouquet, J.: Comunicazione personale

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