

Bilirubin Staining Solution (Modified Fouchet Method)

Cat #: A-CSH372

Size: 2×100mL

Storage: Room temperature, avoid light (12 months)

Product Composition

Component		2×100mL	Store at
Reagent (A): Fouchet staining solution	A1: Fouchet staining solution A	50ml	10~30°C
	A2: Fouchet staining solution B	50ml	10~30°C, and were protected from light
Before use, mix A1: A2, which is Fouchet staining solution, namely match.			
Reagent (B): VG staining solution		100ml	10~30°C, and were protected from light

Product Description

In staining techniques, in most cases, bile pigments refer to the total content of all types of bile pigments that react in the same way. This includes conjugated bilirubin, unconjugated bilirubin, biliverdin, and biliprotein. These substances have different chemical structures and physical properties, especially their solubility in water and ethanol. Most liver tissue sections under the microscope are a mixture of biliverdin, conjugated bilirubin, and unconjugated bilirubin. This is commonly seen in conditions such as bile duct obstruction, abnormal bilirubin metabolism, and liver cell necrosis or degeneration. In histological examination of liver tissue, it is important to differentiate between bile pigments and lipofuscin. Both appear as yellow-brown in routine HE staining and are difficult to distinguish.

The bile pigment staining kit uses the modified Fouchet method, which utilizes the oxidation of iron to produce green coloration of biliverdin and staining of fibers.

Usage

1. Fixation: 10% neutral formalin is the preferred fixative, but other fixatives can also be used.
2. Cut sections with a thickness of 5 μm and place the experimental and control sections in distilled water.
3. Immerse the sections in Fouchet staining solution, avoiding light, for 5-10 minutes.
4. Rinse with running water, followed by a brief rinse with distilled water.
5. Immerse or drop the sections into VG staining solution.
6. Rinse quickly with running water, followed by rapid differentiation in ethanol.
7. Dehydrate with absolute ethanol, clear with xylene, and mount with neutral mounting medium.

Staining Results

bile pigment	Light green to dark green
collagenous fiber	red
Muscle fibers and cytoplasm	yellow

Notes

1. It is best to prepare the Fouchet staining solution just before use. Once prepared, it can be stored at 4°C for 1-2 weeks.
2. If nuclear staining is desired, use hematoxylin staining solution, but the bile pigment color that appears will be dark green.
3. For your safety and health, please wear lab coat and disposable gloves during the operation

Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.