

肝胆色素染色试剂盒(改良 Fouchet 法)

货号: G3291

规格: 2×100mL

保存: 室温, 避光保存, 有效期 6 个月。

产品组成:

试剂名称		规格	保存
试剂(A): Fouchet 染色液	A1: Fouchet 染色液 A	90mL	室温
	A2: Fouchet 染色液 B	10mL	室温, 避光
临用前, 按 A1:A2=9:1 混合, 即为 Fouchet 染色液, 即配即用。			
试剂(B): Fouchet 复染液		100mL	室温, 避光

产品说明:

在染色技术中, 大多数情况下胆色素是指所有以相同反应方式的所有类型胆色素的总称, 这包括结合胆红素、非结合胆红素、胆绿素、类胆红素等。这些物质的化学结构各异, 物理性质各异, 特别是其在水和乙醇中溶解性差异较大。大多数肝组织切片在显微镜下都是胆绿素、结合胆红素、非结合胆红素的混合物。多见于胆管阻塞、胆红素代谢异常、肝细胞坏死或退化等。在肝组织学检查中, 鉴别胆色素与脂褐素很重要, 普通 HE 染色中二者都呈黄褐色, 不易区分。胆色素染色试剂盒采用改良 Fouchet 法, 利用铁的氧化作用使胆绿素呈绿色, 纤维呈染色后黑色素呈黑色, 该法属于常用的黑色素特殊染色法, 效果较其他染色理想。

自备材料:

10%中性福尔马林固定液、蒸馏水

操作步骤: (仅供参考)

试剂(B): Fouchet 复染液可能会由于絮凝产生悬浮物或少量沉淀, 建议取上清使用或沸水浴 5-10min 后晾至 30-40℃ 使用。(见注意事项 2)

1. 固定: 10%中性福尔马林是最好的固定液, 其他固定液亦可。
2. 切片厚度 5mm, 将实验切片及对照切片脱蜡入蒸馏水。
3. 入 Fouchet 染色液, 避光浸染 5~10min。
4. 流水冲洗后, 蒸馏水稍洗。
5. 入 Fouchet 复染液浸染或滴染 3-5min。
6. 流水快速冲洗一下, 立即 95%乙醇快速分化。
7. 无水乙醇脱水, 二甲苯透明、中性树胶封固。

染色结果:

胆色素	翠绿色至深绿色
核	红色
肌纤维和胞质	淡黄色或无色

注意事项:

1. Fouchet 染色液最好即配即用, 配置后可 4℃ 保存 3-4 周。
2. 试剂(B): Fouchet 复染液为胶体性质溶液, 低温 (低于 25℃) 保存或长期储存由于絮凝产生悬浮物或少量沉淀, 属于正常现象, 一般不影响使用。如移液器吸取观察到明显浑浊, 可拧紧瓶盖沸水浴 5-10min 重新制备分散均匀的胶体溶液来恢复使用。
3. 复染细胞核也可用苏木素染色液, 但出现的胆色素颜色呈暗绿色。
4. 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

Hepatobiliary Pigment Stain Kit (Modified Fouchet Method)

Cat: G3291

Size: 2×100mL

Storage: RT, avoid light, valid for 6 months.

Kit components

Reagent		2×100mL	Storage
Reagent(A): Fouchet Solution	A1: Fouchet solution A	90mL	RT
	A2: Fouchet solution B	10mL	RT, avoid light
Before use, mix A1 with A2 as the ratio of 9:1 to prepare Fouchet Solution, it is ready to use immediately.			
Reagent(B): Fouchet Re-dyeing Solution		100mL	RT, avoid light

Introduction

In dyeing technology, in most cases, bile pigment refers to the assembly of all types of bile pigment with the same reaction mode, including conjugated bilirubin, unconjugated bilirubin, biliverdin, bilirubin like, etc. These substances have different chemical structures and physical properties, especially their solubility in water and ethanol. Most liver tissue sections are a mixture of biliverdin, conjugated bilirubin and unconjugated bilirubin under the microscope. It is often seen in bile duct obstruction, abnormal bilirubin metabolism, hepatocyte necrosis or degeneration, etc. In liver histological examination, it is important to distinguish between bile pigment and lipofuscin. In ordinary HE staining, they are yellowish brown and difficult to distinguish. The bile pigment staining kit adopts the modified Fouchet method, which makes the biliverdin green by the oxidation of iron, and the melanin black after fiber dyeing. This method belongs to the commonly used special melanin dyeing method, and the effect is better than other dyeing methods.

Self Provided Materials

10% neutral formalin fixative, distilled water

Protocols(for reference only)

Reagent(B): Fouchet Re-dyeing Solution may produce suspended solids or a small amount of precipitation due to flocculation. It is recommended to take supernatant or boil water bath for 5-10min and then air it to 30-40 °C. (see Note 2)

1. Fixation: 10% neutral formalin is the best fixative, and other fixatives can also be used.
2. Cut the slice in 5mm thickness, and dewax the experimental and control slices into distilled water.
3. Soak in Fouchet Solution away from light for 5-10min.
4. After washing with running water, wash slightly with distilled water.
5. Soak or drip with Fouchet Re-dyeing Solution for 3-5min.
6. Rinse quickly with running water to immediately differentiate with 95% ethanol.
7. Anhydrous ethanol dehydration, xylene transparent, neutral gum sealing.

Result

Bile pigment	Turquoise to dark green
Nucleus	Red
Muscle fiber and cytoplasm	Light yellow or colorless

Note

1. Fouchet Solution is best to be prepared and used immediately. After configuration, it can be stored at 4°C for 3-4 weeks.
2. Reagent(B): Fouchet Re-dyeing Solution is a colloidal solution, which is stored at low temperature (lower than 25 °C) or stored for a long time. Suspended solids or a small amount of precipitation are generated due to flocculation, which is a normal phenomenon and generally does not affect the use. If the colloid solution is evenly dispersed in the boiling bath, tighten the bottle cap for 5-10min to recover the turbid solution.
3. Hematoxylin staining solution can also be used for counterstaining nucleus, but the color of bile pigment is dark green.
4. For your safety and health, please wear experimental clothes and disposable gloves.