V02

肌纤维染色试剂盒(Puchtler 法)

货号：G3470
规格：5×50mL
保存：室温，避光保存，有效期 6 个月。

产品组成：

名称	5×50mL	保存
试剂(A): Mayer 苏木素染色液	50mL	室温，避光
试剂(B): 鞣酸分化液	50mL	室温
试剂(C): 磷钼酸分化液	50mL	室温，避光
试剂(D): 偶氮荧光桃红染色液	50mL	室温，避光
试剂(E): 酸性醇分化液	50mL	室温

产品介绍：

肌纤维(Muscle fiber)属于肌组织成分，由肌细胞组成。根据形态和功能特点，肌组织可以分为平滑肌、骨骼肌、心肌。肌纤维染色的方法有很多种，如丽春红法、苯胺蓝法、磷钨酸苏木素法等。鞣酸-偶氮荧光桃红法是利用两种酸性染料先后作用而完成鉴别染色。

肌纤维染色液(Puchtler 法)主要由苏木素染色液、鞣酸分化液、磷钼酸分化液、偶氮荧光桃红染色液等组成，其染色原理在于鞣酸容易进入渗透性强的胶原纤维，胶原纤维呈黄色；偶氮荧光桃红容易进入渗透性较低的肌纤维，肌纤维呈红色。该染色液用于区分肌纤维和胶原纤维，对比清晰，不易褪色，同时可以显示肌上皮细胞，可用于乳腺和皮肤等肌上皮细胞瘤的诊断。

自备材料：

Bouin 固定液或中性福尔马林固定液等常规固定液、系列乙醇、蒸馏水

操作步骤：(*仅供参考*)

1. 石蜡切片脱蜡至水。
2. 滴加 Mayer 苏木素染色 5~10 min，自来水冲洗 10~15 min，蒸馏水洗 1-2min。
3. 滴加鞣酸分化液处理 10min，蒸馏水冲洗 2 次。
4. 滴加磷钼酸分化液处理 10min，蒸馏水洗 1-2min。
5. 入偶氮荧光桃红染色液浸染 5min。
6. 滴加酸性醇分化液分化至肌纤维呈鲜红色（镜下控制）。
7. 无水乙醇脱水，二甲苯透明，中性树胶封固。

染色结果：

肌纤维、肌上皮细胞	红色
结缔组织	黄色
细胞核	蓝色

注意事项：

1. 使用常规福尔马林固定液即可，但 Bouin 固定液除了固定之外还有媒染的效果，可以得到更鲜明的染色效果。
2. 酸性醇分化液较为重要，应至切片上的红色多余染液脱去，肌纤维呈鲜红色为止。
3. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

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Muscle Fiber Stain Kit (Puchtler Method)

Cat: G3470
Size: 5×50mL
Storage:RT, avoid light, valid for 6 months.

Kit Components

Reagent	5×50mL	Storage
Reagent(A): Mayer Hematoxylin Stain Solution	50mL	RT, avoid light
Reagent(B): Tannin Differentiation Solution	50mL	RT
Reagent(C): Phosphomolybdic Acid Differentiation Solution	50mL	RT, avoid light
Reagent(D): Azophloxine Stain Solution	50mL	RT, avoid light
Reagent(E): Acid Alcohol Differentiation Solution	50mL	RT

Introduction

Muscle fiber is a component of muscle tissue, which is composed of muscle cells. According to the characteristics of morphology and function, muscle tissue can be divided into smooth muscle, skeletal muscle and cardiac muscle. There are many methods of muscle fiber staining, such as Ponceau method, Aniline blue method, Hematoxylin phosphotungstate method and so on. Tannin and Azophloxine method uses two kinds of acid dyes successively to complete identification and dyeing.

Muscle Fiber Stain Kit (Puchtler Method) is mainly composed of Hematoxylin Stain Solution, Tannin Differentiation Solution, Phosphomolybdic Acid Differentiation Solution, Azophloxine Stain Solution, etc. The dyeing principle is that tannic acid is easy to enter the collagen fiber with strong permeability, and the collagen fiber shows yellow; azophloxine is easy to enter the muscle fiber with low permeability, and the muscle fiber shows red. The staining solution can be used to distinguish muscle fiber and collagen fiber, and the contrast is clear and not easy to fade. At the same time, it can display myoepithelial cells, which can be used for the diagnosis of breast and skin myoepithelioma.

Self Provided Materials

Bouin fixative, NBF, etc,Series of ethanol, Distilled water

Protocol(*for reference only*)

1. Dewax the paraffin section to water.
2. Drip with Mayer Hematoxylin Stain Solution for 5-10min,Wash with tap water for 10-15min and distilled water for 1-2min.
3. Drip with Tannin Differentiation Solution for 10 mins,wash with distilled water twice.
4. Drip with Phosphomolybdic Acid Differentiation Solution for 10min,wash with distilled water for 1-2min.
5. Soak the section in Azophloxine Stain Solution and dye for 5min.
6. Drip with Acid Alcohol Differentiation Solution until the muscle fiber shows bright red (control under the microscope).
7. Dehydrate in absolute alcohol, transparent by xylene, and seal with resinene.

Result

Muscle Fiber, Myoepithelial Cells	Red
Connective Tissue	Yellow
Nucleus	Blue

Note

1. It is recommended to fix the tissue with Bouin fixative, otherwise other fixatives may make the staining lighter.
2. The differentiation degree by Acid Alcohol Differentiation Solution is controlled until the excess red dye on the section is removed and the muscle fiber is bright red.
3. For your safety and health, please wear experimental clothes and disposable gloves.