

髓鞘染色试剂盒(固绿法)

货号: G3246

规格: 3×50mL

保存: 室温, 避光保存, 有效期 1 年。

产品组成:

名称	3×50mL	保存
试剂(A): 固定液	100mL	室温, 避光
试剂(B): 固绿染色液	50mL	室温, 避光
试剂(C): MS 分化液	100mL	室温

产品介绍:

髓鞘(Myelin Sheath)是包裹在神经细胞轴突外面的一层膜, 即髓鞘由髓鞘细胞和细胞膜组成, 是神经膜细胞的质膜沿着轴索的轴心螺旋缠绕形成的多层脂双层结构, 髓鞘上有郎飞氏结, 可使神经冲动跳跃传递。髓鞘染色在病理诊断中有一定意义, 髓鞘的病理变化分为早期、中期和晚期。在早期着色较深; 病变中期阶段的髓鞘变性形成脂滴, 可用脂质染色加以显示, 后期彻底溃变并被吞噬细胞清除, 故不再有髓鞘的阳性结果。

很多疾病都可以引起髓鞘的变化, 髓鞘染色试剂盒(固绿法)可以显示病理情况下髓鞘是否完整、变性、坏死程度及修复情况, 对神经组织的病理诊断和研究均有意义, 髓鞘呈深绿色, 脱髓鞘纤维不着色。

操作步骤: (仅供参考)

固定: 采用甲醛钙固定液固定样本。

1. 石蜡切片脱蜡至蒸馏水。
2. 切片入 95%乙醇稍洗 1min。
3. 入固绿染色液, 37°C恒温箱染色 30~45min。
4. 直接用 95%乙醇洗涤 2 次, 每次 10s。
5. 蒸馏水冲洗。
6. 入 MS 分化液分色 10s。
7. 蒸馏水冲洗 (如果分色不足, 可重复 6 步骤)。
8. 常规梯度乙醇脱水, 二甲苯透明, 中性树胶封固。

染色结果:

髓鞘	深绿色, 横截面呈环状, 纵截面呈条索状或鱼骨刺状
脱髓鞘纤维	不着色, 横截面呈半环状或不着色, 呈空白区

注意事项:

1. 分化这一步很关键, 应严格控制分化时间, 可在镜下观察分化程度。
2. 标本最好使用本试剂盒提供的固定液, 若自备的话, 可用 10%的甲醛钙固定液。
3. 切片不宜太厚, 应控制在 5~7 μ m 以内, 否则易出现脱片或过染等现象。
4. 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

Myelin Stain Kit (Fast Green FCF Method)

Cat: G3246

Size: 3×50mL

Storage: RT, avoid light, valid for 1 year.

Kit Components

Reagent	3×50mL	Storage
Reagent (A): Fixative	100mL	RT, avoid light
Reagent (B): Fast Green FCF Staining Solution	50mL	RT, avoid light
Reagent (C): MS Differentiation Solution	100mL	RT

Introduction

Myelin Sheath is a layer of membrane wrapped around the axon of nerve cells, that is, myelin sheath is composed of myelin cells and cell membrane. It is a multilayer lipid double-layer structure formed by the plasma membrane of nerve membrane cells spirally winding along the axis of axon. There is a Langfei's node on myelin sheath, which can make nerve impulse jump and transmit. Myelin staining has certain significance in pathological diagnosis. The pathological changes of myelin can be divided into early, middle and late stages. In the early stage, the color is deep. In the middle stage, the myelin degenerates into lipid droplets, which can be displayed by lipid staining. In the later stage, the myelin degenerates completely and is removed by phagocytes, so there is no positive result of myelin sheath.

Many diseases can cause the change of myelin sheath. Myelin Stain Kit (Fast Green FCF Method) can show whether the myelin sheath is complete, degenerated and also can show necrotic degree and repair situation under pathological conditions. It has significance for the pathological diagnosis and research of nerve tissue. The myelin sheath is dark green and the demyelinated fiber is not stained.

Protocol (for reference only)

Fixation: fix the samples with formaldehyde calcium fixative.

1. For paraffin section, dewax to distilled water.
2. Slightly wash with 95% ethanol for 1 min.
3. Put the section in Fast Green FCF Staining Solution and dye in 37 °C incubator for 30-45min.
4. Directly wash with 95% ethanol twice for 10s each time.
5. Rinse with distilled water.
6. Differentiate by MS Differentiation Solution for 10s.
7. Rinse with distilled water (repeat step 6 if differentiation is insufficient).
8. Conventionally dehydrate in series of ethanol and transparent by xylene, seal with resinene.

Result

Myelin Sheath	Dark green, annular in cross section, cord or fishbone in longitudinal section.
Demyelinated Fiber	No color, semi-circular or non color in cross section, show blank area.

Note

1. Differentiation is a key step. The differentiation time should be strictly controlled, and the degree of differentiation can be observed under the microscope.
2. It is better to use the fixative provided by this kit for the specimen. If it is self prepared, 10% formaldehyde calcium fixative can be used.
3. The section should not be too thick, and should be controlled within 5-7 μ m, otherwise, it is easy to take off the section or over dyeing.
4. For your safety and health, please wear experimental clothes and disposable gloves.