V02

髓鞘染色试剂盒(改良 Page 法)

货号：G3275
规格：4×50mL
保存：室温，避光保存， 有效期 1 年。

产品组成：

名称	4×50mL	保存
试剂(A): Page 固定液	50mL	室温，避光
试剂(B): 改良 Page 染色液	50mL	室温，避光
试剂(C): Page 分化液	50mL	室温
试剂(D): Page 桃红染色液	50mL	室温，避光

产品介绍：

髓鞘(Myelin Sheath)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，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(改良 Page 法)又称砂罗铬花青髓鞘染色液，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，髓鞘呈蓝色，脱髓鞘纤维不着色。

操作步骤：*(仅供参考)*

1. 组织固定于的 Page 固定液中，固定时间应在 3 天以上。
2. 常规脱水包埋，切片厚度 5μm，切片脱蜡至蒸馏水。
3. 用改良 Page 染色液滴染 15～25min。倾去染色液，蒸馏水冲洗 1min。
4. 按 Page 分化液：蒸馏水=1：1 的比例配制 Page 分化工作液。切片直接用 Page 分化工作液分化 10-180s，至背景无色，该分化过程需在显微镜下观察控制分化程度。自来水冲洗 10min。
5. 滴加 Page 桃红染色液复染 20～30s，自来水洗两次，每次 5s。（见注意事项 3）
6. 常规梯度乙醇脱水，每步 2-3s，二甲苯透明，中性树胶封固。

染色结果：

髓鞘、细胞核	深蓝色
细胞胞质、胶原纤维、肌纤维	桃红色

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，可先分化几秒，水洗后显微镜下观察，直至胶原纤维和肌纤维接近于无色或淡灰色，髓鞘呈清晰的蓝色为止。如果该分化过程不易控制，可用蒸馏水把 Page 分化液稀释 4～5 倍后再行分化。
2. 切片不宜太厚，应控制在 5～6μm 以内，否则易出现脱片或过染等现象。
3. 新的 Page 桃红染色液染色时间较短，而保存较久的 Page 桃红染色液染色力会下降，可 37℃预热后染色数分钟。
4. 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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Modified Page Myelin Stain Kit

Cat:G3275
Size:4×50mL
Storage: RT, avoid light, valid for 1 year.

Kit Components

Reagent	4×50mL	Storage
Reagent (A): Page Fixative	50mL	RT, avoid light
Reagent (B): Modified Page Staining Solution	50mL	RT, avoid light
Reagent (C): Page Differentiation Solution	50mL	RT
Reagent (D): Page Pink Staining Solution	50mL	RT, avoid light

Introduction

Myelin Sheath 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. Modified Page Myelin Stain Kit 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 blue and the demyelinated fiber is not stained.

Protocol*(for reference only)*

1. Fix the tissue in Page Fixative for more than 3 days.
2. Dehydration and embedding. Cut the section in 5μm thick and dewax to distilled water.
3. Drop Modified Page Staining Solution and stain for 15-25min,rinse with tap water for 1min.
4. Mix Page Differentiation Solution with distilled water as the radio of 1:1 to form Page Differentiation Working Solution. Directly wash in Page Differentiation Working Solution for 10-180s until the background is colorless. The differentiation process needs to be observed under the microscope to control the degree of differentiation.Rinse with tap water for 10min.
5. Add Page Pink Staining Solution for 20-30s,rinse with tap water.(See note 3)
6. Dehydrate in series of ethanol,2-3s per step, transparent by xylene, seal with resinene.

Result

Myelin Sheath, Nucleus	Dark Blue
Cytoplasm, Collagen Fiber, Muscle Fiber	Pink Red

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. Firstly differentiate for a few seconds, wash and view under the microscope until the collagen fiber and muscle fiber are close to colorless or light gray, and the myelin sheath is clear blue. If the differentiation process is not easy to control, the Page Differentiation Solution can be diluted 4-5 times with distilled water before differentiation.
2. The section should not be too thick, and should be controlled within 5-6μm, otherwise, it is easy to take off the section or over dyeing.
3. The dyeing time of the new Page Pink Staining Solution is shorter, while the dyeing power of the long preserved Page Pink Staining Solution will decrease, and it can be dyed for several minutes after slightly heating.
4. For your safety and health, please wear experimental clothes and disposable gloves.