

刚果红染色液(1%)

货号: G1531

规格: 100mL

保存: 室温, 避光保存, 有效期 1 年。

产品介绍:

淀粉样物质是一种无固定形状的细胞外嗜酸性物质, 可存在于不同的组织、器官, 导致的疾病称为淀粉样变。淀粉样物质主要是由蛋白质构成, 该蛋白大部分排列成反向的 β -折叠层结构。在电子显微镜下淀粉样物质呈原纤维排列, 病例材料中为大量细胞外的不分支的细丝, 大多随机排列。用于识别淀粉样物质的组织学方法有甲紫染色、刚果红染色、偏振光显微镜观察等。目前研究发现传统的甲紫染色法灵敏度低、特异性差, 经典的而且有效的方法是刚果红染色, 1922 年 Bennhold 发现了刚果红可以用于活体内淀粉样物质的鉴别, 并应用到组织切片。

刚果红染色液(1%)染色原理是淀粉样物质对刚果红比其他的组织结构具有更大的亲和力, 其羟基与刚果红的氨基结合, 从而使淀粉样物质染成红色。

自备材料:

10%中性福尔马林固定液、蒸馏水、系列乙醇

操作步骤: (仅供参考)

1. 常规固定, 常采用 10%的中性福尔马林, 常规脱水包埋。
2. 切片厚度 $4\mu\text{m}$, 常规脱蜡至水。
3. 入刚果红染色液(1%), 浸染 30min。
4. 进行后续染色步骤。

染色结果:

淀粉样物质	红色
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注意事项:

1. 切片脱蜡应尽量干净, 否则影响染色效果。
2. 刚果红染色液染色时尽量采用浸染, 如果滴染, 应置于湿盒防止溶液挥发。
3. 分化时间较短, 胶原纤维也被染成红色; 分化过度, 淀粉样物质也被脱色。如果脱色过度, 可以将切片清洗后重新用刚果红染色液浸染。
4. 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

Congo Red Stain Solution, 1%

Cat: G1531

Size: 100mL

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

Introduction

Amyloid is a kind of extracellular acidophilic substance with no fixed shape, which can exist in different tissues and organs, resulting in diseases called amyloidosis. Amyloid is mainly composed of proteins, most of which are arranged in reverse β - fold structure. Under the electron microscope, the amyloid materials are arranged as fibrils. In the case materials, there are a large number of non branching filaments, most of which are randomly arranged. The histological methods for the identification of amyloid substances include Violet Staining, Congo Red Staining and polarized light microscopy. In 1922, Bennhold found that Congo red can be used to identify starch like substances in vivo, and applied to tissue sections.

The principle of Congo Red Stain Solution, 1% is that amyloid has a greater affinity for Congo red than other tissue structures, and its hydroxyl group combines with the amino group of Congo red to make amyloid red.

Self Provided Materials

10% neutral formalin fixative, Distilled water, Series of ethanol

Protocols(for reference only)

1. Conventionally fix, usually using 10% neutral formalin, conventional dehydration and embedding.
2. Cut slice into 4 μ m thickness. Conventionally dewax to water.
3. Add Congo Red Stain Solution, 1% and soak for 30 min.
4. Conduct subsequent dyeing steps.

Result

Amyloid	Red
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Note

1. Section dewaxing should be as clean as possible, otherwise it will affect the dyeing effect.
2. Soak dyeing shall be used as much as possible when dyeing with Congo Red Stain Solution, 1%. If use drop staining, shall place in a wet box to prevent the solution from volatilizing.
3. When the differentiation time is short, the collagen fibers are dyed red; when the differentiation time is long, the amyloid will be decolorized. If the decolorization is excessive, the slices can be cleaned and stained with Congo Red Stain Solution, 1% again.
4. For your safety and health, please wear experimental clothes and disposable gloves.