V02

焦油紫染色液(0.1%)

货号：G1700
规格：100mL
保存：室温，避光保存，有效期 6 个月。

产品介绍：

尼氏颗粒是能够代表粗面内质网并在很多神经元中产生特异的斑点状嗜碱性表现的嗜碱性颗粒。尼氏体(Nissl body)或称尼氏小体是分布于神经细胞胞质内的三角形或椭圆形小块状物质，能被碱性染料如硫堇、亚甲蓝、甲苯胺蓝和焦油紫等染料染成紫蓝色。各种神经细胞内都含有尼氏体，但其形状、数量、分布位置常常不同。尼氏体也存在于树突中，但不在于轴突和包体的轴丘。尼氏体会因为生理状态的变化而变化，尼氏体是神经元内合成蛋白质合成的重要部位，当神经元受到刺激后，胞体内的尼氏体会明显减少。

焦油紫染色液(0.1%)以进口焦油紫作为核心染料，焦油紫具有感光作用，能够很好地显示尼氏体的变化。本试剂操作简便、染色稳定、适用范围广，可以用于石蜡组织切片的尼氏物质、神经元等的染色。尼氏体的存在和消失是神经细胞是否受损的重要指标，当发生脑炎、脑缺血、轴突反应等情况，尼氏体会发生溶解，甚至消失。

自备材料：

无水乙醇、温箱或水浴锅、酒精灯、蒸馏水、70%乙醇或尼氏分化液、显微镜

操作步骤：(*仅供参考*)

1. 新鲜组织固定于乙醇、Carnoy 固定液或中性福尔马林溶液，常规脱水包埋。
2. 切片厚 5μm，常规脱蜡至水。
3. 切片入焦油紫染色液(0.1%)，56℃恒温浸染 1h。
4. 蒸馏水冲洗。
5. 入 70%乙醇或尼氏分化液快速分化，在显微镜下观察至背景接近于无色为止。
6. 无水乙醇迅速脱水。二甲苯透明，中性树胶封固。

染色结果：

尼氏体	紫色
背景	接近于无色

注意事项：

1. 尼氏体离体后容易溶解，所以组织取出后应立即固定，否则难以着色。
2. 组织固定起着非常重要的作用，固定可采用乙醇、Carnoy 固定液或中性福尔马林溶液。
3. 本染色试剂盒对石蜡组织切片的尼氏染色效果较好。
4. 石蜡切片厚度 5～10μm 或 25μm(皮质神经元密度的评估要用 25μm 厚的切片)。
5. 染色后的标本务必避光保存，否则容易褪色。
6. 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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Tar Violet Aqueous Solution, 0.1%

Cat: G1700
Size: 100mL
Storage: RT, avoid light, valid for 6 months.

Introduction

Nissl granules is the cytoplasm in the cell body, which can represent rough endoplasmic reticulum and produce specific speckled basophilic granules in many neurons. Nissl body is a small triangular or oval substance distributed in the cytoplasm of nerve cells. It can be dyed into purplish blue by basic dyes such as thionine, methylene blue, toluidine blue and cresyl violet. Nissl bodies are found in all kinds of nerve cells, but their shape, number and distribution are often different. Nissl bodies also exist in dendrites, but not in axons and axonal colliculus of enclaves. Nissl body is an important part of protein synthesis in neurons. When neurons are stimulated, Nissl body is significantly reduced.

The import tar violet is used as the core dye in Tar Violet Aqueous Solution, 0.1%, Water Solvent. Cresyl violet had photosensitive effect and could well show the change of Nissl body. It can be used to stain Nissl substance and neurons in paraffin sections. The existence and disappearance of Nissl body is an important indicator of whether nerve cells are damaged. When encephalitis, cerebral ischemia, axon reaction and other conditions occur, Nissl body will dissolve or even disappear.

Self Provided Materials

1. Absolute ethanol, distilled water, 70% ethanol or Nissl differentiation, microscope
2. Incubator or water bath, alcohol lamp, microscope

Protocol *(for reference only)*

1. Fix fresh tissues in ethanol, Carnoy fixative or neutral formalin solution. Routinely dehydrate and embed.
2. Cut slice in 5μm thickness. Conventionally dewax to water.
3. Soak the slice in Cresyl Violet Stain Solution, 0.1%, Water Solvent and stain at 56 ℃ for 1 h.
4. Wash with distilled water.
5. Quickly differentiate with 70% ethanol or Nissl differentiation. Observe under microscope until the background is nearly colorless.
6. Dehydrate in anhydrous ethanol rapidly. Transparent by xylene and seal with neutral gum.

Result

Nissl body	Purple
Background	Nearly Colorless

Note

1. Nissl body is easy to dissolve in vitro, so the tissue should be fixed immediately after removal, otherwise it is difficult to stain.
2. Tissue fixation plays a very important role. Ethanol, Carnoy fixative or neutral formalin solution can be used for fixation.
3. The Nissl staining effect of this solution is better applied for paraffin tissue sections.
4. The thickness of paraffin section is 5-10 μm or 25 μm(The density of cortical neurons is estimated by 25 μm thick section).
5. The dyed specimen must be kept away from light, otherwise it is easy to fade.
6. For your safety and health, please wear laboratory clothes and disposable gloves.