Tar Violet Staining Solution (0.1%)

T1507849

Storage: 2-8℃. Store in the dark.

Introduction:

Nissl bodies (also called Nissl granules) are triangular or oval small masses distributed in the cytoplasm of nerve cells. They can be stained blue by basic dyes such as thionine, methylene blue, toluidine blue, and cresyl violet. Tar Violet Staining Solution (0.1%) uses imported cresyl violet as the core dye. Cresyl violet has a photosensitive effect and can well display changes in Nissl bodies. This reagent features simple operation, stable staining, and a wide range of applications. It can be used for staining Nissl substances, neurons, etc., in paraffin-embedded tissue sections. The presence or absence of Nissl bodies is an important indicator of whether nerve cells are damaged. When conditions such as encephalitis, cerebral ischemia, or axonal reaction occur, Nissl bodies will dissolve or even disappear.

Operating Procedures (for Reference Only):

1. Fix fresh tissues in ethanol, Carnoy's fixative, or neutral formalin solution, then perform routine dehydration and embedding.
2. Cut sections with a thickness of 5 μm, and conduct routine dewaxing to water.
3. Place the sections into Cresyl Violet Stain, put the staining jar in an incubator for impregnation, and heat with an alcohol lamp until the sections start to bubble (approximately 10 minutes).
4. Rinse with distilled water.
5. Add 70% ethanol or Nissl Differentiation solution for differentiation, and observe under a microscope until the background is nearly colorless.
6. Dehydrate quickly with absolute ethanol, clear with xylene, and mount with neutral gum for sealing.

Staining Results:

Nissl bodies: Purple.
Background: Nearly colorless.

Precautions:

1. Nissl bodies are prone to dissolution after being isolated from the body. Therefore, tissues should be fixed immediately after removal; otherwise, staining will be difficult.
2. Tissue fixation plays a crucial role. Ethanol, Carnoy's fixative, or neutral formalin solution can be used for fixation.
3. This staining kit provides good results for Nissl staining of paraffin-embedded tissue sections.

4. The thickness of paraffin sections can be 7-10 μm or 25 μm (25 μm-thick sections are required for evaluating the density of cortical neurons).
5. Stained specimens must be stored away from light; otherwise, they are prone to fading.
6. This product is for research use only. Any other uses are strictly prohibited.