Nissl stain kit (methyl violet method)

The neuronal cell body consists of a large nucleus with a ruffled nuclear membrane, sparse chromatin, and a prominent nucleolus. Within the cell body are Nissl granules, basophilic granules that represent the rough endoplasmic reticulum and produce a characteristic speckled basophilic appearance in many neurons. Nissl granules can be visualized with a variety of stains such as neutral red, methylene blue, toluidine blue, and methyl violet. Variations in staining, pH, and time of differentiation allow some stains to highlight only Nissl material as well as showing the nuclei of neurons and glia.

Nissl bodies are small triangular or oval-shaped substances distributed in the cytoplasm of nerve cells. They can be dyed purple-blue by basic dyes such as thionine, methylene blue, toluidine blue and tar violet. Nissl bodies are found in all kinds of nerve cells, but their shapes, numbers and distribution locations are often different. Nissl bodies also exist in dendrites, but not in the axons and axon hillocks of inclusion bodies. Nissl bodies change due to changes in physiological state. Nissl bodies are important sites for protein synthesis in neurons. When neurons are stimulated, the number of Nissl bodies in the inclusion bodies will be significantly reduced.

The main features of methyl violet Nissl stain are simple operation, stable staining, short differentiation time, and a wide range of applications. It can be used to stain Nissl substances and neurons in paraffin tissue sections. The presence and disappearance of Nissl bodies are important indicators of whether nerve cells are damaged. When encephalitis, cerebral ischemia, axonal reactions, etc. occur, Nissl bodies will dissolve or even disappear.

Catalog No.	260029
Size	2 x 50mL
Product Category	Histochemical Stain
Storage/Stability	Ambient/6 months

Shipping	Ambient