Myelin Sheath Staining Solution (Resorcin Green Method)

Cat #: A-CSH400

Size: 100mL

Storage: Room temperature, avoid light (12 months)

Product Description

The myelin sheath is a membrane that wraps around the axon of a nerve cell. It consists of myelin sheath cells and cell membranes. It is a multilayered lipid bilayer structure formed by the plasma membrane of the neural membrane cells spiraling around the axon. It has certain significance in pathological diagnosis. The pathological changes of the myelin sheath can be divided into early, middle, and late stages. In the early stage, the staining is deeper. In the middle stage, the myelin sheath undergoes degeneration and forms lipid droplets, which can be demonstrated by lipid staining. In the late stage, it completely disintegrates and is cleared by phagocytic cells, resulting in no positive results for the myelin sheath. Many diseases can cause changes in the myelin sheath, such as expansion, tortuosity, fragmentation, or complete demyelination when nerve fibers are damaged.

Usage

1. It is recommended to fix the samples with formaldehyde calcium fixative solution.
2. Deparaffinize the sections and place them in distilled water.
3. Immerse the sections in Lissamine Green G staining solution for 3-5 minutes.
4. Rinse the sections with distilled water.
5. Treat the sections with a mordant solution for 1 minute.
6. Re-stain the sections with Brilliant Green staining solution for 3-5 minutes.
7. Differentiate with acid differentiation solution for 10 seconds, then rinse with tap water.
8. Dehydrate with gradient alcohol, clear with xylene, and mount with neutral mounting medium.

Notes

1. Differentiation is a critical step, and the differentiation time should be strictly controlled. The degree of differentiation can be observed under a microscope.

2. It is preferable to use formaldehyde calcium fixative solution as the fixing agent, but 10% neutral formalin or formalin can also be used.

3. The sections should not be too thick, as it may lead to issues like detachment or excessive staining.

4. All staining tools used must be thoroughly cleaned and rinsed with distilled water. It is recommended to test the staining on a sample section and determine the staining time after observing it under a microscope.

5. For your safety and health, please wear lab attire and disposable gloves while performing the procedure.

Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.