Weil Myelin Sheath Staining Solution

Cat #: A-CSH363

Size: 4×50mL

Storage: Room temperature, avoid light (12 months)

Product Composition

Component		4×50ml	Store at
Reagent (A): Weil hematoxylin staining solution	A1: Weil hematoxylin A	25ml	10~30°C, and were protected from light
	A2: Weil hematoxylin B	25ml	10~30°C
Take equal amounts of A1 and A2 as Weil hematoxylin staining solution, which should not be prepared in advance.			
Reagent (B): Alum solution		50ml	10~30°C
Reagent (C): Weil differentiation solution		50ml	10~30°C
Reagent (D): Weil solution		50ml	10~30°C

Product Description

The myelin sheath is a membrane that wraps around the axon of a nerve cell. It is composed of myelin-forming cells and their cell membranes. The myelin sheath is a multilayered lipid bilayer structure formed by the spiral wrapping of the plasma membrane of the myelin-forming cells around the axon. The nodes of Ranvier are present on the myelin sheath, which allows for the saltatory conduction of nerve impulses. Myelin staining has certain significance in pathological diagnosis, and the pathological changes of the myelin sheath can be classified into early, middle, and late stages. In the early stage, the staining is darker. In the middle stage, myelin degeneration occurs, forming lipid droplets that can be visualized using lipid staining. In the late stage, complete disintegration occurs, and the myelin sheath is cleared by phagocytic cells, resulting in a negative staining result.

Many diseases can cause changes in the myelin sheath. Weil staining can demonstrate the integrity, degeneration,

necrosis degree, and repair of the myelin sheath under pathological conditions. It is meaningful for the pathological diagnosis and research of neural tissues. For example, when nerve fibers are damaged, the myelin sheath may show changes such as swelling, twisting into spherical shapes, fragmentation, or complete demyelination

Usage

1. Cut paraffin sections of 15-20μm thickness and dewax them followed by water rinsing.
2. Rinse with distilled water.
3. Immerse the sections in the prepared Weil hematoxylin staining solution and incubate at 37-58°C in an incubator or water bath for 20-30 minutes. If kept at room temperature, stain for 1 hour.
4. Rinse with distilled water.
5. Differentiate with alum solution for 2-3 minutes, and under the microscope, control the differentiation to distinguish normal myelin from gray matter or areas of degeneration.
6. Rinse with distilled water.
7. Differentiate with Weil differentiation solution for 2-10 minutes (this step can be omitted if differentiation is good).
8. Rinse with distilled water.
9. Treat with 6 drops of Weil blueing solution for 5 minutes, followed by thorough rinsing with water.
10. Perform routine dehydration, clear with xylene, and mount with a neutral mounting medium.

Staining Results

medullary sheath	black
background	achromatic colour

Notes

1. This staining kit is convenient and fast. Alum differentiation is a crucial step and should be observed under the microscope to determine the degree of differentiation.
2. 10% formalin is recommended as the fixative.
3. When staining at 37-58°C in an incubator or water bath, precautions should be taken to prevent the evaporation of

the staining solution.

4. For your safety and health, please wear laboratory 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.