Cellulose Staining Solution (Modified MSB Method)

Cat #: A-CSH359

Size: 9×50mL

Storage: 2~8°C, avoid light (12 months)

Product Composition

Component	3×50ml	Store at
Reagent (A): Sodium thiosulfate solution	50ml	10~30°C
Reagent (B): Celis lazuli blue staining solution	50ml	2~8°C, and were protected from light
Reagent (C): Mayer hematoxylin staining solution	50ml	2~8°C, and were protected from light
Reagent (D): Acid ethanol differentiation solution	50ml	10~30°C
Reagent (E): Ma yellow staining solution	50ml	10~30°C, and were protected from light
Reagent (F): acid magenta stain solution	50ml	10~30°C, and were protected from light
Reagent (G): Phosphotunggic acid solution	50ml	10~30°C, and were protected from light
Reagent (H): Aniline blue staining solution	50ml	10~30°C, and were protected from light
Reagent (I): a weak acid solution	50ml	10~30°C

Product Description

Pathological endogenous deposits are part of pigment deposits. Through certain pathological changes, tissue cells form deposits with different shapes and characteristics. These aggregates form special proteins that can be stained to display fibrinogen. Fibrinogen is a special protein formed by the polymerization of fibrinogen molecules present in the blood. Under normal circumstances, it is a special protein formed by the polymerization of fibrinogen molecules in the blood. This protein exists in tissues in the form of curved filamentous fibrils, mostly in a reticular structure, sometimes forming coarse fibrinogen networks. Old deposits can aggregate into amorphous clumps. When tissues are damaged, the

endothelium of blood vessels is severely affected, leading to increased vascular permeability, which can cause a large amount of fibrinogen leakage.

The Modified Masson's Trichrome staining kit is a simple and inexpensive staining solution for fibrinogen staining, where fibrinogen appears red or blue after staining.

Usage

1. Fix the tissue and proceed with routine dehydration and embedding until wax removal is complete.
2. Immerse the tissue in sodium thiosulfate solution for 3-5 minutes, then rinse with water.
3. Stain the tissue with aniline blue staining solution for 3-5 minutes.
4. Stain the tissue with Mayer's hematoxylin staining solution for 3-5 minutes.
5. Differentiate the tissue with acid ethanol differentiation solution for a few seconds, then rinse with running water for 10 minutes.
6. Rinse with 95% ethanol briefly.
7. Stain the tissue with Martius Scarlet Blue staining solution for 2-3 minutes, then rinse with distilled water.
8. Stain the tissue with acid fuchsin staining solution for 10 minutes, then rinse with distilled water.
9. Treat the sections with phosphotungstic acid solution until the collagen turns from red to nearly colorless, then rinse with distilled water. (Observe under a microscope, usually for 5-10 minutes)
10. Stain the tissue with aniline blue staining solution for 5-10 minutes.
11. Rinse with weak acid solution and blot dry with absorbent paper.
12. Rapidly rinse with 95% ethanol twice.
13. Dehydrate with absolute ethanol, clear with xylene, and mount with a neutral mounting medium.

Staining Results

cellulose	Red (old cellulose is blue to purple black)
muscle fibers	red
nucleus	Blue grey brown
collagenous fiber	blue
red blood cell	yellow

Notes

1. The treatment of the sections with phosphotungstic acid solution serves two purposes. Firstly, it differentiates the collagen fibers stained in red to a nearly colorless state. Secondly, it acts as a mordant for the collagen fibers, ensuring a strong binding with aniline blue.

2. For better results, if the sections are first stained with Bouin's solution and then subjected to the above staining method.

3. Aniline blue staining usually takes around 5 minutes, but it is important to observe the sections every 2 minutes to prevent over-staining, which could result in excessively deep blue color.

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.