Modified Van Gieson Staining Solution

Cat #: A-CSH323

Size: 4×50mL

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

Product Composition

Component	4×50mL	Store at
Reagent (A): Celis lazuli blue staining solution	50ml	2~8°C, and were protected from light
Reagent (B): Mayer hematoxylin staining solution	50ml	2~8°C, and were protected from light
Reagent (C): Acid ethanol differentiation solution	50ml	10~30°C
Reagent (D): VG staining solution	50ml	10~30°C, and were protected from light

Product Description

Type I collagen fibers are mainly found in bone, skin, and tendon fibers; Type II collagen fibers are primarily present in cartilage collagen; Type III collagen fibers are mainly found in embryonic tissues, adult blood vessels, and the gastrointestinal tract; Type IV collagen fibers are primarily located in the basement membrane. The principle of Van Gieson's collagen fiber staining is related to the size of the anionic dye molecules and tissue permeability. The size of the molecule is reflected by its molecular weight, with small molecular weight molecules easily penetrating dense and low-permeability tissues, while large molecular weight molecules can only enter loosely structured and highly permeable tissues. After VG staining, muscle fibers appear yellow, and collagen fibers appear red. Van Gieson staining is commonly used to differentiate collagen fibers from muscle fibers, distinguishing between collagenous tumors and myogenic tumors, and assessing tissue or organ damage, repair, and fibrosis.

The improved Van Gieson staining kit uses Aniline Blue and Mayer's hematoxylin to stain cell nuclei, resulting in better staining effects and longer preservation time.

Usage

1. Fix the tissue in 10% formalin fixative, followed by routine dehydration and embedding.

2. Cut sections with a thickness of 4-5μm, and dewax the sections to water.

3. Stain with Aniline Blue staining solution for 2-3 minutes. Rinse slightly with water.

4. Stain with Mayer's hematoxylin staining solution for 2-3 minutes. Rinse slightly with water.

5. Differentiate with acid ethanol differentiation solution for 5 seconds. Rinse with running water for 10 minutes.

6. Stain with VG staining solution for 1-2 minutes.

7. Absorb excess staining solution with filter paper, immediately differentiate and dehydrate with 95% ethanol.

8. Dehydrate with absolute ethanol, clear with xylene, and mount with neutral mounting medium

Staining Results

collagenous fiber	red
Muscle fibers, cytoplasm, and red blood cells	yellow
nucleus	Blue brown

Notes

1. If the cell nuclei are overstained, differentiation with acid ethanol can be performed again.

2. For your safety and health, wear laboratory attire and disposable gloves during the procedure.

Disclaimer

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