Verhoeff'S Elastic Fiber Staining Kit

Cat #: A-CSH318

Size: 4×50mL, 4×100mL, 4×500mL

Storage: Room temperature, avoid light (12 months)

Product Composition

Component		4×50ml	4×100ml	Store at
Reagent (A): Verhoeff staining solution	A1: Verhoeff staining solution A	30ml	60ml	10~30°C, and were protected from light
	A2: Verhoeff staining solution B	12ml	24ml	10~30°C, and were protected from light
	A3: Verhoeff staining solution C	12ml	24ml	10~30°C, and were protected from light
Before use, mix A1: A2: A3=5:2:2 and use it up within 3h.				
Reagent (B): Verhoeff differentiation solution		50ml	100ml	10~30°C
Reagent (C): 5% sodium thiosulfate dye solution		50ml	100ml	10~30°C
Reagent (D): VG staining solution		50ml	100ml	10~30°C, and were protected from light

Product Description

Elastic fibers are mainly distributed in the arterial walls, alveolar walls, and skin of the human body. When fresh, they appear yellow and exhibit strong refractivity. Common staining methods for elastic fibers include Gomori's aldehyde fuchsin method, resorcin-fuchsin alkaline method, orcein method, Victoria blue method, and iron-hematoxylin method.

Verhoeff's elastic fiber staining can demonstrate changes in elastic fibers in skin tissue, such as elastofibroma, granuloma annulare, and elastosis. It can also be used to observe and diagnose lesions in the endocardium and arteries, and to identify tumor tissue components such as elastofibroma. After elastic fiber staining, elastic fiber balls can be clearly observed within the tumor.

Usage

1. Dewax paraffin sections in water.

2. Immerse the sections in prepared Verhoeff's staining solution for 15-30 minutes until the color turns dark black.

3. Rinse with running water to remove excess staining solution.

4. Differentiate with Verhoeff's differentiation solution until elastic fibers appear clear (observe under a microscope).

5. Rinse thoroughly with running water.

6. Treat with 95% ethanol for a few seconds to rapidly remove iodine.

7. Rinse with running water for 2-3 minutes.

8. Place the sections in a 5% sodium thiosulfate solution for 3 minutes.

9. Rinse thoroughly with running water, followed by distilled water.

10. Perform a counterstain with Van Gieson's staining solution for 1 minute.

11. Rapidly differentiate with 95% ethanol.

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

Staining Results

spandex	black
collagenous fiber	red
Myofibers, cellulose, and glia	yellow

Notes

1. Prepare the reagent (A) before use. Do not prepare it in advance as it loses staining power after approximately 6 hours.

2. Control the degree of differentiation with Verhoeff's differentiation solution under a microscope to avoid over-staining or under-staining.

3. When removing iodine with 95% ethanol for a few seconds, observe under a microscope. If over-differentiated, return to step 2 and restain.

4. Do not exceed 1 minute for the counterstain with Van Gieson's staining solution.

Disclaimer

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