

Basement Membrane Staining Solution (PASM)

Cat #: A-CSH410

Size: 5×50mL

Storage: 2~8°C, avoid light (3 months)

Product Description

Basement Membrane Methenamine Silver (PASM) staining is a classic method for visualizing basement membranes.

Tissues are oxidized with iodine, exposing the aldehyde groups in the basement membrane's mucopolysaccharides. The aldehyde groups reduce the methenamine silver to black metallic silver. Gold chloride converts the metallic silver into more stable metallic gold, while providing a clearer background. Hematoxylin fixes and removes unreduced silver ions. PASM staining can clearly display basement membranes and is most commonly used in the study of renal lesions to observe morphological changes such as fractures, hyperplasia, and folding of glomerular capillary basement membranes during inflammatory injury.

Usage

1. Deparaffinize the tissue sections and wash with water.
2. Immerse the sections in iodine solution for oxidation for 10-15 minutes.
3. Rinse with tap water, followed by two washes with distilled water for 2 minutes each.
4. Place the sections in the prepared Methenamine Silver Working Solution and incubate in a water bath at 65°C for approximately 35-60 minutes until the sections turn tobacco yellow or black.
5. Wash the sections with distilled water twice for 3 minutes each.
6. Color the sections with gold chloride solution for 3-5 minutes.
7. Rinse the sections with distilled water twice for 2 minutes each.
8. Treat the sections with hematoxylin solution for 5 minutes.
9. Wash the sections with distilled water twice for 2 minutes each.
10. Re-stain the cytoplasm with light green solution.

11. Submerge the sections sequentially in 70% ethanol, 80% ethanol, and 90% ethanol for 1 minute each; then in 95% ethanol for 1 minute, changing the solution once; finally, in absolute ethanol for 2 minutes, changing the solution once for rapid dehydration. Clear the sections with xylene for 5 minutes, changing the solution once.
12. Mount the sections with neutral mounting medium.

Notes

1. Glassware used in the experiment should be soaked and rinsed in cleaning solution in advance, then dried.
2. After preparing the Methenamine Silver Working Solution, it can be preheated in an incubator until the temperature reaches 65°C before applying it to the tissue sections for staining.
3. The prepared Methenamine Silver Working Solution is for one-time use and should not be stored for a long time.
4. When adjusting the color with gold chloride, make sure to observe under a microscope.
5. For your safety and health, please wear a lab coat and disposable gloves when performing the operation.

Disclaimer

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