



VitroView™ Periodic Acid Silver Methenamin Stain Kit

SKU#: VB-3033

Description:

The dialdehydes formed by treatment with periodic acid from certain carbohydrates, will selectively reduce an alkaline hexamine-silver salt mixture. This kit is especially suitable for renal glomerular basement membranes. It is very helpful to determine the thickness of glomerular basement membranes and mesangial matrix.

Kit Contents:

SKU#	Reagent Name	Volume (ml)
VB-3033-1	Periodic acid 1%	100 ml
VB-3033-2	Silver nitrate 5%	35 ml
VB-3033-3	Methenamine 3%	35 ml
VB-3033-4	Sodium tetraborate 2%	35 ml
VB-3033-5	Gold chloride 0.25%	100 ml
VB-3033-6	Sodium thiosulfate 5%	100ml
VB-3033-7	Mayer's hematoxylin solution	100 ml
VB-3033-8	Eosin solution	100 ml

Storage

Store Silver Nitrate 5% and Gold chloride 0.25% at 2-8 °C. The other components can be stored at room temperature.

Protocol

1. Deparaffinize in xylene I for 6 minutes and II for 6 minutes. Rehydrate:
 - a. Ethanol 100% (2 minutes)
 - b. Ethanol 100% (2 minutes)
 - c. Ethanol 95% (2 minutes)
 - d. Ethanol 95% (2 minutes)
 - e. Ethanol 70% (2 minutes)
2. Rinse in DI water (2 minutes).
3. Incubate the sections with Periodic acid 1% for 30 minutes.
4. Wash in distilled water.
5. Fresh make silver methenamine solution: Mix Silver nitrate 5% , Methenamine 3% and Sodium tetraborate 2% at a ratio of 1:1:1.
6. Incubate the section with silver methenamine solution in oven for 30 minutes at 60°C. Check the slide microscopically after 20 minutes then every 5 minutes until the basement membrane is well demonstrated. If necessary, incubate again. The sections should turn tobacco.
7. Wash in hot distilled water (60°C) for 4 min. Wash in room temperature distilled water for 1 min.
8. Incubate the section with Gold chloride 0.25% for 1 minute.

9. Wash in distilled water.
10. Incubate the section with Sodium thiosulfate 5% for 1 minute.
11. Wash in distilled water.
12. Stain the sections with hematoxylin for 2 min.
13. Running tap water for 2 min.
14. Stain the sections with Eosin for 1min.
15. Dehydrate with 2 changes of 100% Ethanol (2 minute per change).
16. Clear with 2 changes of xylene (5 minute per change).
17. Mount cover slip onto glass slide with Permount or some other suitable organic mounting medium.

Control Tissue: kidney

Expected Results:

- Basement membranesBlack
- Cell Nuclear-----Blue
- BackgroundRed

Note: This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Precautions: Handle with care. Avoid contact with eyes, skin and clothing. Do not ingest. Wear gloves.