

Usage procedure for:

Jones Stain Kit for Basement Membranes

Avantik Kit Item #: RS4612-125 | RS4612-250 | RS4612-500



19 Chapin Rd - Building C
Pine Brook, NJ 07058

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Solutions Provided in Stain Kit:

Periodic Acid, 0.5%
Methenamine, 3%
Silver Nitrate, 5%
Sodium Borate, 5%
Gold Chloride, 0.2%
Sodium Thiosulfate, 5%
Nuclear Fast Red

Working solution preparation (prepare just before use):

Working Silver-Methenamine Solution (DO NOT REUSE)

Methenamine, 3%:	42mL
Silver Nitrate, 5%	2.5mL
Sodium Borate, 5%	6mL

Conventional Procedure

1. Deparaffinize and hydrate sections through alcohol to distilled water.
2. Place sections in **Periodic Acid, 0.5%** for 15 minutes.
3. Rinse in 2 changes of distilled water.
4. Place sections in **Silver-Methenamine Working Solution** preheated on 65°C for 60 minutes. Using plastic forceps, dip slide in HOT distilled water and check section microscopically for proper silver impregnation (basement membrane and reticular fibers should black). If silver impregnation is not adequate, dip slide again in HOT distilled water and return to Silver-Methenamine Working solution for 5-10 minutes and check again.
5. Rinse slides in 4 changes of distilled water.
6. Tone in **Gold Chloride, 0.2%** for 15-30 seconds.
7. Rinse slides in 4 changes of distilled water.
8. Treat slides with **Sodium Thiosulfate, 5%** for 2 minutes to remove unreacted silver.
9. Rinse in tap water followed by 2 changes of distilled water.
10. Counterstain with **Nuclear Fast Red**, for 2 minutes.
11. Rinse slides quickly in distilled water.
12. Dehydrate in 2 changes of 95% alcohol followed by 2 changes of 100% alcohol.
13. Clear and mount with appropriate mounting medium.

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Results:

Basement Membrane:	Black
Reticulum Fibers:	Black
Nuclei:	Red
Background:	Light Pink

Kit Components:

Avantik Item Numbers:

Periodic Acid, 0.5%: RS4435-250 (250 mL) | RS4435-500 (500 mL)

Silver Nitrate, 5%: RS4449-250 (250 mL) | RS4449-500 (500 mL)

Gold Chloride, 0.2%: RS4412-250 (250 mL) | RS4412-500 (500 mL)

Sodium Thiosulfate, 5%: RS4455-250 (250 mL) | RS4455-500 (500 mL)

Nuclear Fast Red: RS4429-250 (250 mL) | RS4429-500 (500 mL)

Sodium Borate, 5%: N/A

Methenamine, 3%: N/A