

Usage procedure for:

GMS Stain Kit



19 Chapin Rd - Building C
Pine Brook, NJ 07058

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Avantik Kit Item #: RS4556-125 | RS4556-250 | RS4556-500

Solutions Provided in Stain Kit:

Chromic Acid, 5%
GMS Silver Nitrate Stock Solution
GMS Methenamine Stock Solution
Sodium Borate Solution
Sodium Bisulfite, 1%
Gold Chloride, 0.2%
Sodium Thiosulfate, 5%
Light Green Counterstain

Working solution preparation (prepare fresh):

Working Methenamine-Silver Solution

GMS Silver Nitrate Stock Solution:	25mL
GMS Methenamine Stock Solution:	25mL
Sodium Borate Solution:	2mL

Conventional Procedure

1. Deparaffinize and hydrate sections through alcohol to distilled water.
2. Place sections in **Chromic Acid, 5%** at room temperature for one hour or in a preheated solution at 60°C for 5-10 minutes.
3. Rinse slides in running tap water for a few seconds.
4. Place slides in **Sodium Bisulfite, 1%** for 1 minute.
5. Rinse in running tap water for several minutes.
6. Wash in several changes of distilled water.
7. Place sections in **Methenamine-Silver Working Solution** preheated to 58°C-60°C for 10-15 minutes or until sections turn yellowish brown. Check section microscopically for proper silver impregnation (dark brown fungi, pcp, etc). If silver impregnation is not adequate, return slides to Methenamine-Silver Working solution and recheck every 2-3 minutes.
8. Rinse slides in 4-6 changes of distilled water.
9. Tone in **Gold Chloride, 0.2%** for 15-30 seconds.
10. Wash thoroughly in tap water.
11. Treat slides with **Sodium Thiosulfate, 5%** for 2-5 minutes to remove unreduced silver.
12. Wash thoroughly in tap water.
13. Counterstain with **Light Green Counterstain**, for 90 seconds.
14. Dehydrate in 2 changes of 95% alcohol followed by 2 changes of 100% alcohol.
15. Clear and mount with appropriate mounting medium.

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Results:

Fungi/PCP/Candida/Aspergillus:	Black
Mucin:	Taupe to Grey
Background:	Green

Kit Components and Related Control Slides:

Avantik Item Numbers:

Chromic Acid, 5%: RS4399-250 (250 mL) | RS4399-500 (500mL)

GMS Silver Nitrate Stock Solution: RS4410-250 (250mL) | RS4410-500 (500mL)

GMS Methenamine Stock Solution: RS4409-250 (250mL) | RS4409-500 (500mL)

Sodium Borate Solution: RS4452-250 (250mL) | RS4452-500 (500mL)

Sodium Bisulfite, 1%: RS4451-250 (250mL) | RS4451-500 (500mL)

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

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

Light Green Counterstain: RS4421-250 (250mL) | RS4421-500 (500mL)

GMS Aspergillus Control Slides: SL6329-A (Pack/12) | SL6329-B (Pack/25) | SL6329-D (Pack/100)

GMS Candida Control Slides: SL6402-A (Pack/12) | SL6402-B (Pack/25) | SL6402-D (Pack/100)

GMS/PCP Control Slides: SL6328-A (Pack/12) | SL6328-B (Pack/25) | SL6328-D (Pack/100)

GMS/Fungus Control Slides: SL6208-A (Pack/12) | SL6208-B (Pack/25) | SL6208-D (Pack/100)

GMS/Fungus Pos/Neg Control Slides: SL6378-A (Pack/12) | SL6378-B (Pack/25) | SL6378-D (Pack/100)