

Usage procedure for:
GMS Stain Kit



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Solutions Provided:

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 just before use):

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 Bisulfate, 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). 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.

Results:

Fungi:	Black
Mucin:	Taupe to Grey
Background:	Green