

G.M.S. STAIN KIT PROCEDURE

Item# KT 015

**KIT
COMPONENTS
INCLUDED:**

100ml. 5% CHROMIC ACID
100ml. 0.3% GOLD CHLORIDE
100ml. LIGHT GREEN COUNTERSTAIN

100ml. 1% SODIUM BISULFITE
100ml. 2% SODIUM THIOSULFATE
30ml. SODIUM BORATE
CONCENTRATE

5 METHENAMINE/SILVER COMPOUND 4 Each Slide Jar for Microwave Procedure

PRINCIPLE: This kit demonstrates fungi and Pneumocystis Carinii.

SPECIMEN: Any well fixed paraffin embedded tissue cut at 4 to 5 microns.

PROCEDURE:

1. Deparaffinize slide using Xylene or a Xylene Substitute and hydrate through alcohols.
2. Rinse slide thoroughly in Tap water.
3. Place slide in **5% CHROMIC ACID** for 1 hour.
4. Rinse slide quickly in Tap water.
5. Place slide in **1% SODIUM BISULFITE** for 1 minute.
6. Rinse slide quickly in Tap water.
7. Place slide in Distilled water for 1 minute.
8. *Place slide in the **Methenamine/Silver Solution** for 15 to 25 minutes in a 62°C water bath.
9. Rinse slide through 2 changes of Distilled water.
10. Place slide in **0.3% GOLD CHLORIDE** for 1 minute.
11. Rinse slide thoroughly in running Tap water.
12. Place slide in **2% SODIUM THIOSULFATE** for 2 minutes.
13. Rinse slide in running Tap water for 2 minutes.
14. Place slide in **LIGHT GREEN COUNTERSTAIN** for 30 to 60 seconds.
15. Dehydrate slide through 3 changes of fresh Absolute Alcohol.
16. Clear slide through 3 changes of Xylene or Xylene Substitute.
17. Coverslip using a permanent mounting media.

Methenamine/Silver Solution Preparation:

Add 2ml of Distilled water to a vial of Methenamine/Silver Compound and break up chunks with an applicator stick. Pour contents of vial into a clean glass coplin jar or unused plastic container. Add 46ml of Distilled water and mix thoroughly. Add 2ml of Sodium Borate Concentrate and mix for 2 minutes; **Methenamine/Silver Solution** is ready to use.

PLEASE NOTE:

1. **Do not reuse Methenamine/Silver Solution!**
2. **Methenamine/Silver Compound** may soften during transit; this will not affect product performance. If desired, Methenamine/Silver Compound

RESULTS:

Fungi and Pneumocystis Carinii: **GRAY TO BLACK**
Background: **GREEN**

***Lab Oven Method:** Place slide in **Methenamine/Silver Solution** and incubate for 25 to 35 minutes at 70° to 75°C.

REFERENCE: Sheehan DC Hrapchak BB: Theory and Practice of Histotechnology; 1980: 245-246.

For Research Use Only. Not for Diagnostic or Therapeutic Work.

DBS will not be held responsible for patent infringement or other violation that may occur with the use of our product.

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MICROWAVE G.M.S. STAIN PROCEDURE

KIT COMPONENTS INCLUDED:	100ml. 5% CHROMIC ACID	100ml 1% SODIUM BISULFITE
	100ml. 0.3% GOLD CHLORIDE	100ml 2% SODIUM THIOSULFATE
	100ml. LIGHT GREEN COUNTERSTAIN	30ml. SODIUM BORATE CONCENTRATE
	5 Vials METHENAMINE/SILVER COMPOUND	4 Each Slide Jar for Microwave Procedure

PRINCIPLE: This kit demonstrates Fungi and Pneumocystis Carinii.

TECHNICAL SPECIFICATIONS:

These instructions were developed using a single power level 500 watt microwave oven; heating times should be changed as needed based on the microwave oven used.

SPECIMEN:

Any well fixed paraffin embedded tissue cut at 4 to 5 microns. We recommend staining no more than 3 slides at a time when using the supplied slide jars. To allow sufficient volume for thermal expansion, do not fill slide jars past the bottom cap thread.

PROCEDURE:

1. Deparaffinize using Xylene or a Xylene Substitute and hydrate through alcohols.
2. Rinse slide thoroughly in Tap water.
3. Place slide in a Slide Jar filled with **5% Chromic Acid**. **CAP JAR LOOSELY!**
4. Place Slide Jar in microwave oven. Heat on high power for 10 seconds and incubate for 1 minute.
5. Rinse slide in running Tap water for 1 minute.
6. Place slide in room temperature **1% Sodium Bisulfite** for 1 minute.
7. Rinse slide in running Tap water for 1 minute, then place in Distilled water for 1 minute.
8. Place slide in a Slide Jar of fresh **Methenamine/Silver Solution**. **CAP JAR LOOSELY!**
9. Place Slide Jar in microwave oven. Heat on high power for 10 seconds and incubate for 30 seconds. Repeat this step as needed until the tissue is a medium brown color.
10. Rinse slide in Distilled water and evaluate stain using a microscope.
11. Repeat **Step #9** for darker organisms.
12. Place slide in room temperature **0.3% Gold Chloride** for 1 minute.
13. Rinse slide thoroughly in running Tap water.
14. Place slide in **2% Sodium Thiosulfate** for 1 minute.
15. Rinse slide in running Tap water for 2 minutes.
16. Place slide in **Light Green Counterstain** for 30 to 60 seconds.
17. Dehydrate slide through 3 changes of Absolute Alcohol.
18. Clear through 3 changes of Xylene or Xylene Substitute.
19. Coverslip using a permanent mounting media.

Methenamine/Silver Solution Preparation:

Add 2ml of Distilled water to a vial of **Methenamine/Silver Compound** and break up any chunks with an applicator stick. Pour contents of vial into a clean glass coplin jar or unused plastic container. Add 46ml of Distilled water and mix thoroughly. Add 2ml of **Sodium Borate Concentrate** and mix for 2 minutes; **Methenamine Silver Solution** is ready to use.

PLEASE NOTE:

1. **Do not reuse Methenamine/Silver Solution!**
2. **Methenamine/Silver Compound** may soften during transit; this will not affect product performance. If desired, **Methenamine/Silver Compound** can be re-hardened by placing vials in a freezer.

RESULTS:

Fungi and Pneumocystis Carinii: **GRAY TO BLACK**
Background: **GREEN**

REFERENCE: Sale GE: Rapid Methenamine Silver Stain; Arch Pathol Lab Med; 1978, 102: 351- 352.

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