

MODIFIED STAT WARTHIN-STARRY STAIN KIT PROCEDURE

Item# KT036

KIT COMPONENTS INCLUDED:	100ml.	SPIROCHETE SENSITIZER	100ml.	0.5% SILVER NITRATE, Acidulated
	75ml.	4% GELATIN, Acidulated	30ml.	2% SILVER NITRATE, Acidulated
	45ml.	0.1% HYDROQUINONE, Acidulated		

PRINCIPLE: This kit demonstrates *Helicobacter pylori*, Spirochetes, *Legionella pneumophila*, and Cat Scratch Fever bacteria.

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

QUALITY CONTROL: Recommended Control Slide: *Helicobacter pylori*, Spirochete, *Legionella pneumophila*, Cat Scratch Fever.

PRODUCT NOTE: Store all kit solutions, **except SPIROCHETE SENSITIZER**, in the refrigerator.

SOLUTIONS:

Reducing Solution: Prepare at Step 5

4% GELATIN, Acidulated 12.5ml

2% SILVER NITRATE, Acidulated 20 to 30 drops

0.1% HYDROQUINONE, Acidulated 7.5ml

Warm **4% GELATIN, Acidulated** to liquify. Prepare reducing solution in an unused plastic Five Slide Mailer or Slide Jar. Mix components thoroughly or uneven staining will result

PROCEDURE:

- 1) Deparaffinize slide using Xylene or a Xylene Substitute and hydrate through alcohols to Distilled water.
- 2) For spirochete staining only, place slide in room temperature **SPIROCHETE SENSITIZER** for 5 minutes, then rinse slide thoroughly in Distilled water. **NOTE:** For all other listed bacteria, **Step 2** may be omitted. If **SPIROCHETE SENSITIZER** is used, it will not affect correct demonstration of *Helicobacter pylori*, *Legionella pneumophila*, or Cat Scratch Fever bacteria.
- 3) Put 20ml of **0.5% SILVER NITRATE, Acidulated** in an unused plastic Slide Jar.
- 4) Place the container of **0.5% SILVER NITRATE, Acidulated** in a waterbath at 65° to 70°C for 5 minutes.
- 5) Place slide into the hot **0.5% SILVER NITRATE, Acidulated**, agitate slide thoroughly and incubate for 3 to 5 minutes.
- 6) Transfer slide from the **0.5% SILVER NITRATE, Acidulated** into the **Reducing Solution**. Place container into a 65° to 70°C waterbath, agitating frequently (This step may take 1 to 5 minutes) until the section is brown. **NOTE:** If slide is not agitated frequently during this step, uneven staining can occur!
- 7) Rinse slide carefully in hot Tap water for 2 minutes.
- 8) Dehydrate slide through 3 changes of fresh Absolute Alcohol.
- 9) Clear slide through 3 changes of fresh Xylene or Xylene Substitute.
- 10) Coverslip slide immediately using a permanent mounting media.

RESULTS:

Helicobacter pylori, *Legionella pneumophila*, **DARK BROWN, GRAY, OR**
Spirochetes, Cat Scratch Fever bacteria: **BLACK**
Background: **YELLOW TO BROWN**

REFERENCE: Kerr DA: Improved Warthin-Starry method for tissue sections; Am J Clin Pathol; 1938, 8: 63-67.

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.

DBS

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WARTHIN-STARRY STAIN KIT PROCEDURE FOR MICROWAVE OVENS

(Revised 10/9/03)

KIT COMPONENTS INCLUDED:	100ml. SPIROCHETE SENSITIZER	100ml. 0.5% SILVER NITRATE, Acidulated
	75ml. 4% GELATIN, Acidulated	30ml. 2% SILVER NITRATE, Acidulated
	45ml. 0.1% HYDROQUINONE, Acidulated	

PRINCIPLE: This kit demonstrates Helicobacter pylori, Spirochetes, Legionella pneumophila, and Cat Scratch Fever bacteria.

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

QUALITY CONTROL: Recommended Control Slide: Helicobacter pylori, Spirochete, Legionella pneumophila, Cat Scratch Fever.

PRODUCT NOTE: Store all kit solutions, **except SPIROCHETE SENSITIZER**, in the Refrigerator.

SOLUTIONS:

Reducing Solution: Prepare at Step 7

4% GELATIN, Acidulated12.5ml

2% SILVER NITRATE, Acidulated20 to 30 drops

0.1% HYDROQUINONE, Acidulated7.5ml

Warm **4% GELATIN, Acidulated** to liquify. Prepare reducing solution in an unused plastic Five Slide Mailer or Slide Jar.

Mix components thoroughly or uneven staining will result!

TECHNICAL SPECIFICATIONS: A 500 watt microwave oven was used to develop this procedure.

PROCEDURE:

- 1) Deparaffinize slide using Xylene or a Xylene Substitute and hydrate through alcohols to Distilled water.
- 2) For spirochete staining, place slide in room temperature **SPIROCHETE SENSITIZER** for 5 minutes, then rinse slide thoroughly in Distilled water. **NOTE:** For all other listed bacteria, **Step 2** may be omitted. If **SPIROCHETE SENSITIZER** is used, it will not affect correct demonstration of Helicobacter pylori, Legionella pneumophila, or Cat Scratch Fever bacteria.
- 3) Put 20ml of **0.5% SILVER NITRATE, Acidulated** into an unused plastic Slide Jar.
- 4) Put 20 ml of Tap water into a coplin jar, then place Slide Jar into the coplin jar.
- 5) Place the coplin jar in a microwave oven and heat for 30 seconds at full power.
- 6) Place slide into the **0.5% SILVER NITRATE, Acidulated**. Cap Slide Jar tightly and invert several times to equalize solution temperature, then return Slide Jar to coplin jar and incubate for 5 minutes.
- 7) Remove Slide Jar from coplin jar and replace with Slide Jar containing the **Reducing Solution** and heat for 20 seconds at full power. Remove coplin jar from microwave and transfer slide into the **Reducing Solution**. Agitate slide thoroughly and incubate for 2 to 5 minutes; remove slide when section is brown.
- 8) Rinse slide carefully in hot Tap water for 2 minutes.
- 9) Dehydrate slide through 3 changes of fresh Absolute Alcohol.
- 10) Clear slide through 3 changes of fresh Xylene or Xylene Substitute.
- 11) Coverslip slide immediately using a permanent mounting media.

RESULTS:

Helicobacter pylori, Legionella
pneumophila, Spirochetes, Cat Scratch
Fever bacteria: **DARK BROWN, GRAY, OR
BLACK**
Background: **YELLOW TO BROWN**

REFERENCE: Kerr DA: Improved Warthin-Starry method for tissue sections; Am J Clin Pathol; 1938, 8: 63-67.

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