

Version 2 Last updated 27 June 2018

ab150688 Warthin-Starry (Microorganism Stain)

For staining Spirochetes, *Helicobacter pylori*, *Legionella pneumophila* and Cat Scratch Fever Bacteria.

This product is for research use only and is not intended for diagnostic use.

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1. Overview

The Warthin-Starry (Microorganism Stain) Kit is intended for use in the visualization of Spirochetes, *Helicobacter pylori*, *Legionella pneumophila*, and Cat Scratch Fever bacteria. This kit may be used on formalin-fixed, paraffin-embedded or frozen sections.

Staining Interpretation

<i>Helicobacter pylori</i>	Black
<i>Legionella pneumophila</i>	Black
Spirochetes	Black
Cat Scratch Fever Bacteria	Black
Klebsiella	Brown/Black
Nuclei	Brown
Background	Yellow

2. Materials Supplied and Storage

Store kit at 4°C immediately on receipt and check below for storage for individual components. Kit can be stored for 1 year from receipt, if components have not been reconstituted.

Keep away from open flame and refer to Safety Datasheet.

Item	Quantity	Storage temperature (before prep)
SpiroPrep	125 mL	RT
Acidulated Gelatin	2 x 65 mL	4°C
Acidulated Silver Nitrate Solution (0.5%)	125 mL	4°C
Acidulated Hydroquinone Solution	2 x 30 mL	4°C
Acidulated Silver Nitrate Solution (2%)	30 mL	4°C

3. Materials Required, Not Supplied

These materials are not included in the kit, but will be required to successfully perform this assay:

- Absolute Alcohol
- Plastic slide jar

4. General guidelines, precautions, and troubleshooting

Please observe safe laboratory practice and consult the safety datasheet.

For general guidelines, precautions, limitations on the use of our assay kits and general assay troubleshooting tips, particularly for first time users, please consult our guide:

www.abcam.com/assaykitguidelines

For typical data produced using the assay, please see the assay kit datasheet on our website.

5. Reagent Preparation

- 5.1 **SpiroPrep**
Ready to use as supplied.
- 5.2 **Acidulated Gelatin**
Ready to use as supplied.
- 5.3 **Acidulated Silver Nitrate Solution (0.5%)**
Ready to use as supplied.
- 5.4 **Acidulated Hydroquinone Solution**
Ready to use as supplied.
- 5.5 **Acidulated Silver Nitrate Solution (2%)**
Ready to use as supplied.

6. Assay Procedure

- Equilibrate all materials and prepared reagents to room temperature just prior to use and gently agitate.

6.1 Preparation of reducing solution:

1. Warm Acidulated Gelatin to liquify prior to beginning. Prepare Reducing Solution in an unused plastic slide jar.
2. Combine the following reagents:

Component	Amount
Acidulated Gelatin	12.5 mL
Acidulated Silver Nitrate Solution (2%)	20 - 30 drops
Acidulated Hydroquinone Solution	7.5 mL

6.2 Procedure (standard):

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. For spirochete staining only, place slide in room temperature SpiroPrep for 5 minutes (omit this step for other listed bacteria).
ΔNote: Use of SpiroPrep will not affect staining of *Helicobacter pylori*, *Legionella pneumophila*, or Cat Scratch Fever bacteria.
3. Pour 20 mL of Acidulated Silver Nitrate Solution (0.5%) in an unused plastic staining jar and place in a water bath at 65- 70°C for 5 minutes.
4. Place slide in warmed Acidulated Silver Nitrate Solution (0.5%) and incubate for 3-5 minutes with repeated agitation.
5. Transfer slide into previously prepared Reducing Solution and agitate. Place staining jar in a water bath at 65-70°C with frequent agitation until tissue section is brown (approximately 1-5 minutes).
6. Rinse slide carefully in hot tap water for 2 minutes.
7. Dehydrate slide through 3 changes of fresh Absolute Alcohol.
8. Clear and mount in synthetic resin.

6.3 Procedure (microwave oven):

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. For spirochete staining only, place slide in room temperature SpiroPrep for 5 minutes (omit this step for other listed bacteria).

ΔNote: Use of SpiroPrep will not affect staining of *Helicobacter pylori*, *Legionella pneumophila*, or Cat Scratch Fever bacteria.

3. Pour 20 mL of Acidulated Silver Nitrate Solution (0.5%) in an unused plastic staining jar and microwave at full power for 30 seconds. Invert several times to equalize temperature.
4. Place slide in warmed Acidulated Silver Nitrate Solution (0.5%) and incubate for 5 minutes with repeated agitation.
5. Warm previously prepared Reducing Solution in microwave at full power for 20 seconds. Invert several times to equalize temperature.
6. Transfer slide into warmed Reducing Solution and with frequent agitation until tissue section is brown (approximately 2-5 minutes).
7. Rinse slide carefully in hot tap water for 2 minutes.
8. Dehydrate slide through 3 changes of fresh Absolute Alcohol.
9. Clear and mount in synthetic resin.

7. FAQs / Troubleshooting

General troubleshooting points are found at www.abcam.com/assaykitguidelines

8. Notes

Technical Support

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