Usage procedure for:
Warthin-Starry Stain Kit, Modified Stat

Avantik Kit Item #: RS4572-125 | RS4572-250 | RS4572-500

Solutions Provided in Stain Kit:
Spirochete Sensitizing Solution
Silver Nitrate (Acidulated), 0.5%
Silver Nitrate (Acidulated), 2%
Gelatin Solution (Acidulated), 4%
Hydroquinone Solution (Acidulated)

Prepare Reducing Solution (just before use): in a new plastic 5 slide mailer or slide jar. It is important to mix the solution thoroughly or uneven staining will occur. *If Gelatin Solution is solidified, gently warm to liquefy.

Reducing Solution
Silver Nitrate (Acidulated), 2%: 2mL
Gelatin Solution (Acidulated), 4%: 13mL
Hydroquinone Solution (Acidulated): 5mL

Conventional Procedure
1. Deparaffinize and hydrate sections through alcohol to distilled water.
2. For spirochete staining only: Place slides in room temperature Spirochete Sensitizing Solution for 5 minutes and rinse thoroughly in distilled water.
3. Fill an unused plastic 5 slide mailer or jar with 20mL of Silver Nitrate (Acidulated), 0.5% and preheat in a 70°C waterbath for 5 minutes.
4. Place slides in hot Silver Nitrate (Acidulated), 0.5% for 5 minutes with frequent agitation.
5. Transfer slides directly into premade Reducing Solution and place the container in a 70°C waterbath for 1-5 minutes until sections turn brown. Agitate slides frequently during this process or uneven staining will occur.
6. Carefully rinse slides in hot tap water for 2 minutes.
7. Dehydrate in 3 changes of 100% alcohol.
8. Clear and mount with appropriate mounting medium.

Microwave Procedure (a 500 watt microwave was used for this procedure, your times may vary)
1. Deparaffinize and hydrate sections through alcohol to distilled water.
2. For spirochete staining only: Place slides in room temperature Spirochete Sensitizing Solution for 5 minutes and rinse thoroughly in distilled water.
3. Fill an unused plastic 5 slide mailer or jar with 20mL of Silver Nitrate (Acidulated), 0.5% and microwave at full power for 30 seconds. Approximate temperature should be 65°-75°C.
4. Place slides in hot Silver Nitrate (Acidulated), 0.5% for 5 minutes with frequent agitation.
5. Microwave premade Reducing Solution at full power for 20 seconds.
6. Transfer slides directly into hot Reducing Solution for 2-5 minutes until section turn brown. Agitate slides frequently during this process or uneven staining will occur.
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7. Carefully rinse slides in hot tap water for 2 minutes.
8. Dehydrate in 3 changes of 100% alcohol.
9. Clear and mount with appropriate mounting medium.

Results:
Spirochetes/Other Bacteria: Dark Brown to Black
Background: Pale Yellow to Light Brown

Kit Components:

Avantik Item Numbers:

Spirochete Sensitizing Solution: RS4456-250 (250 mL) | RS4456-500 (500 mL)
Silver Nitrate (Acidulated), 0.5%: RS4445-250 (250 mL) | RS4445-500 (500 mL)
Silver Nitrate (Acidulated), 2%: RS4448-250 (250 mL) | RS4448-500 (500 mL)
Gelatin Solution (Acidulated), 4%: RS4407-250 (250 mL) | RS4407-500 (500 mL)
Hydroquinone Solution (Acidulated): RS4417-250 (250 mL) | RS4417-500 (500 mL)