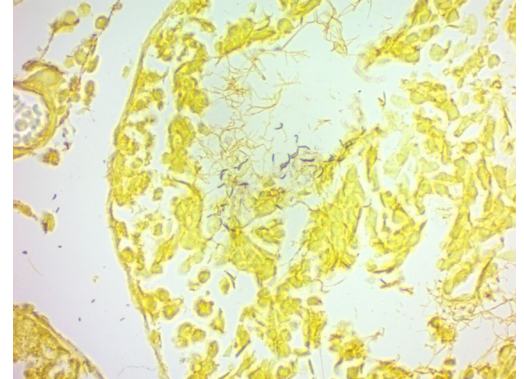


Steiner Stain Kit (For Spirochetes)

Description: The Steiner Stain Kit (For Spirochetes) is designed for demonstrating Fungi, Helicobacter Pylori, Legionella pneumophila, and Spirochete infected tissue. Kit may be used on formalin fixed, paraffin-embedded tissue.

Spirochetes:	Black to Brown
Helicobacter Pylori:	Black to Brown
Fungi:	Black to Brown
Legionella pneumophila	Black to Brown
Background:	Yellow to Tan



Uses/Limitations: For In-Vitro Diagnostic use only.
Histological applications.
Do not use past expiration date.
Use caution when handling these reagents.


Control Tissue: Helicobacter Pylori infected stomach.

Availability/Contents:

<u>Item #</u>	<u>Kit Contents</u>	<u>Volume</u>	<u>Storage</u>
SOS125	Oxidizer Solution	125 ml	Room Temperature
ZFN125	Zinc Formalin Solution	125 ml	Room Temperature
GUM125	Gum Mastic Solution	125 ml	2-8° Centigrade
HFS001.5	Hydroquinone	1.5 gm	Room Temperature
SNS125	Silver Nitrate Solution (0.2%)	125 ml	2-8° Centigrade
SNY009	Silver Nitrate Solution (1%)	9 ml	2-8° Centigrade

Precautions: Avoid contact with skin and eyes.
May cause burns.
Harmful if swallowed.
Follow all Federal, State, and local regulations regarding disposal.
Use in chemical fume hood whenever possible.

Storage: 2° C  25° C
**Mixed Storage Conditions.
Separate Contents.**

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CE IVD

EC REP
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Prinsessegracht 20
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Instructions For Use
SSK-1-IFU

Rev. Date: Mar. 7, 2022

Revision: 3

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P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com**Important Notes:**

1. All glassware/containers used in this procedure should be chemically cleaned (bleach or acid) and rinsed thoroughly in distilled water.
2. Do not use metal forceps to remove slides from reagents. Use plastic forceps only.
4. Prewarm all reagents to room temperature prior to use.

Procedure (Standard):**Prepare Reducing Solution at Step #10 of this Procedure:**

Combine:

25ml 1% Hydroquinone (0.25gm Hydroquinone in 25ml Distilled Water)

15ml Gum Mastic Solution (2.5%)

Mix thoroughly and filter through medium filter paper.

Then Add:

6 Drops (240µl) Silver Nitrate Solution (1%)

Mix thoroughly.


1. Preheat Water Bath to 70° Centigrade.
2. Deparaffinize sections if necessary and hydrate to distilled water.
3. Incubate slide in Oxidizer Solution for 20 minutes.
4. Rinse thoroughly in distilled water.

Note: Place 20 ml of Silver Nitrate Solution (0.2%) in water bath to preheat.

5. Incubate slide in Zinc Formalin Solution for 5 minutes.
6. Rinse thoroughly in distilled water.
7. Incubate slide in preheated Silver Nitrate Solution (0.2%) for 5 minutes at 70° Centigrade. (Note: Discard solution after this step)
8. Rinse slide thoroughly in distilled water.
9. Dehydrate slide in 2 changes of Absolute Alcohol.

Note: Prepare Reducing Solution (above) and place in water bath to preheat.

10. Incubate slide in Gum Mastic Solution for 3 minutes.
11. Air dry slide for 1 minute or until gum mastic is completely dry.

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12. Incubate slide in preheated Reducing Solution for 10-15 minutes or until section is tan to brown at 70° Centigrade. (Note: Discard solution after this step)
13. Rinse slide quickly in distilled water.
14. Dehydrate quickly in 3 changes of absolute alcohol.
15. Clear, and mount in synthetic resin.

Procedure (Microwave):**Prepare Reducing Solution at Step #10 of this Procedure:**

Combine:

25ml 1% Hydroquinone (0.25gm Hydroquinone in 25ml Distilled Water)

15ml Gum Mastic Solution (2.5%)

Mix thoroughly and filter through medium filter paper.

Then Add:

6 Drops (240µl) Silver Nitrate Solution (1%)

Mix thoroughly.


1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Incubate slide in Oxidizer Solution for 20 minutes.
3. Rinse thoroughly in distilled water.
4. Incubate slide in Zinc Formalin Solution for 5 minutes.
5. Rinse thoroughly in distilled water.

Note: In a loosely capped Slide Jar heat 20ml of Silver Nitrate Solution (0.2%) in a microwave oven for 10 seconds at full power. Repeat as needed until solution is hot, but do not allow solution to boil. Remove Slide Jar from microwave, tighten cap and agitate to equalize temperature.

6. Incubate slide in hot Silver Nitrate Solution (0.2%) for 2 minutes with occasional agitation. (Note: Discard solution after this step)
7. Rinse slide thoroughly in distilled water.
8. Dehydrate slide in 2 changes of Absolute Alcohol.
9. Incubate slide in Gum Mastic Solution for 3 minutes.

Note: Prepare Reducing Solution (above).

10. Air dry slide for 1 minute or until gum mastic is completely dry.

Storage: 2° C  25° C**Mixed Storage Conditions.
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11. In a loosely capped Slide Jar heat 20ml of Reducing Solution in a microwave oven for 10 seconds at full power. Repeat as needed until solution is hot, but do not allow solution to boil. Remove Slide Jar from microwave, tighten cap and agitate to equalize temperature.
12. Place slide in loosely capped Slide Jar and return to microwave. As before heat Slide Jar containing slide for 10 seconds at full power. Repeat as needed until solution is hot, but do not allow solution to boil. Incubate slide in hot Reducing Solution for 3 minutes and then reheat again at full power until solution is hot. Incubate slide for an additional 2-3 minutes or until section is tan to brown. (Note: Discard solution after this step)
13. Rinse slide quickly in distilled water.
14. Dehydrate quickly in 3 changes of absolute alcohol.
15. Clear, and mount in synthetic resin.

References:

1. Carson, F.L., (2009), Histotechnology; A Self-Instructional Text, 3rd Edition. ASCP Press, Chicago, IL. Pages 249-250
2. Margeson, L.S., & Chapman, C.M., (1996) Use of Zinc Formalin as a Sensitizer in Silver Stains for Spirochetes, Journal of Histotechnology, 19:2, 135-138, DOI: 10.1179/his.1996.19.2.135
3. Swisher, B.L., (1987) Modified Steiner Procedure for Microwave Staining of Spirochetes and Nonfilamentous Bacteria, Journal of Histotechnology, 10:4, 241-243, DOI: 10.1179/his.1987.10.4.241

Storage: 2° C  25° C

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