

Version 2 Last updated 26 June 2018

ab150685 Steiner (Microorganism Stain)

For the Histological Visualization of Fungi, *Helicobacter pylori*,
Legionella pneumophila and Spirochetes in infected tissue.

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

Table of Contents

1. Overview	2
2. Materials Supplied and Storage	4
3. Materials Required, Not Supplied	5
4. General guidelines, precautions, and troubleshooting	6
5. Reagent Preparation	7
6. Assay Procedure	8
7. FAQs / Troubleshooting	10
8. Notes	11

1. Overview

The Steiner (Microorganism Stain) (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 as well as frozen sections.

Staining Interpretation:

Spirochetes	Black to Brown
<i>Helicobacter pylori</i>	Black to Brown
Fungi	Black to Brown
<i>Legionella pneumophila</i>	Black to Brown
Background	Yellow to Tan

Control Tissue:

Helicobacter pylori infected stomach

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. Refer to the Safety Data Sheet.

Item	Quantity	Storage temperature (before prep)
Oxidizer Solution	125 mL	RT
Zinc Formalin Solution	125 mL	RT
Gum Mastic Solution	125 mL	4°C
Hydroquinone	1.5 g	RT
Silver Nitrate Solution (0.2%)	125 mL	4°C
Silver Nitrate Solution (1%)	9 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
- Water bath

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 **Oxidizer Solution**
Ready to use as supplied.
- 5.2 **Zinc Formalin Solution**
Ready to use as supplied.
- 5.3 **Gum Mastic Solution**
Ready to use as supplied.
- 5.4 **Hydroquinone**
See Assay Procedure.
- 5.5 **Silver Nitrate Solution (0.2%)**
Ready to use as supplied.
- 5.6 **Silver Nitrate Solution (1%)**
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 Preheat Water Bath to 70° Centigrade.

6.2 Deparaffinize sections if necessary and hydrate to distilled water.

6.3 Incubate slide in Oxidizer Solution for 20 minutes.

6.4 Rinse thoroughly in distilled water.

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

6.5 Incubate slide in Zinc Formalin Solution for 5 minutes.

6.6 Rinse thoroughly in distilled water.

6.7 Incubate slide in preheated Silver Nitrate Solution (0.2%) for 5 minutes at 70° Centigrade.

ΔNote: Discard solution after this step

6.8 Rinse slide thoroughly in distilled water.

6.9 Dehydrate slide in 2 changes of Absolute Alcohol.

ΔNote: Prepare Reducing Solution and place in water bath to preheat.

Reducing Solution

Item	Volume
1% Hydroquinone (0.25 g Hydroquinone in 25 mL distilled water)	25 ml
Gum Mastic Solution	15 ml

- Mix thoroughly and filter through medium filter paper.
- Add drops (240 μ L) Silver Nitrate Solution.
- Mix thoroughly.

6.10 Incubate slide in Gum Mastic Solution for 3 minutes.

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

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

7. FAQs / Troubleshooting

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

8. Notes

Technical Support

Copyright © 2012-2018 Abcam. All Rights Reserved. The Abcam logo is a registered trademark. All information / detail is correct at time of going to print.

Austria

wissenschaftlicherdienst@abcam.com | 019-288-259

France

supportscientifique@abcam.com | 01.46.94.62.96

Germany

wissenschaftlicherdienst@abcam.com | 030-896-779-154

Spain

soportecientifico@abcam.com | 91-114-65-60

Switzerland

technical@abcam.com

Deutsch: 043-501-64-24 | Français: 061-500-05-30

UK, EU and ROW

technical@abcam.com | +44(0)1223-696000

Canada

ca.technical@abcam.com | 877-749-8807

US and Latin America

us.technical@abcam.com | 888-772-2226

Asia Pacific

hk.technical@abcam.com | (852) 2603-6823

China

cn.technical@abcam.com | 400 921 0189 / +86 21 2070 0500

Japan

technical@abcam.co.jp | +81-(0)3-6231-0940

Singapore

sg.technical@abcam.com | 800 188-5244

Australia

au.technical@abcam.com | +61-(0)3-8652-1450

New Zealand

nz.technical@abc.com | +64-(0)9-909-7829