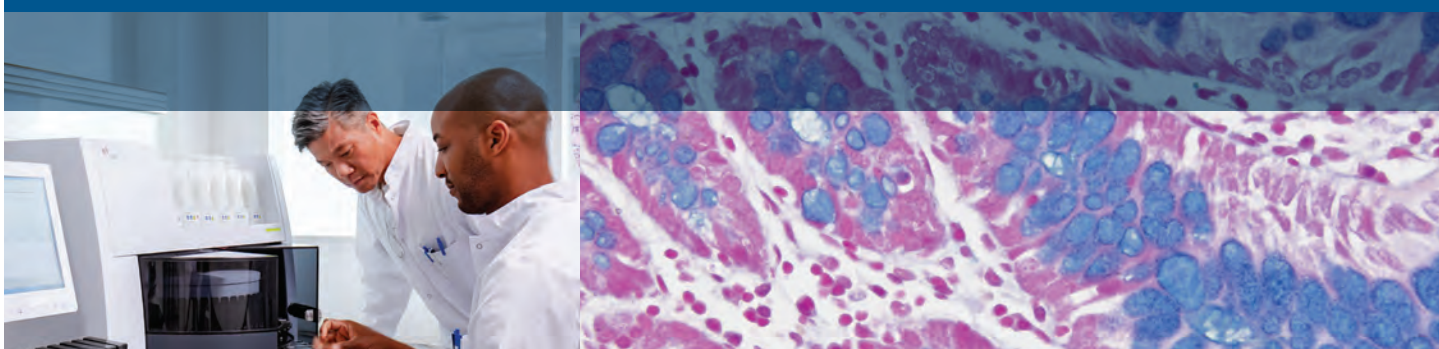


Special Stains on Artisan Link Pro

Atlas of Stains



Special Stains on Artisan Link Pro - Atlas of Stains

Intended Purpose

Routinely processed samples (paraffin-embedded) may be used. The preferred fixative is neutral buffered formalin. The clinical interpretation of any staining, or its absence, should be complemented by morphological studies and proper controls, and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist. All reagents have been optimally prepared for use on the Artisan Staining System and require no reconstitution or diluting.

Storage

Each component should be stored at the temperature indicated on the label. Do not use after expiration date. If reagents are stored under any conditions other than those specified, the conditions must be verified by the user. There are no obvious signs to indicate instability of this product. Therefore, appropriate tissue must be run as controls for such verification. If unexpected staining is observed which cannot be explained by variations in laboratory procedures or improper storage, contact Agilent Technical Support.

Time per Slide

*Actual Time per Slide varies depending on a number of factors, including but not limited to: placement on carousel, quantity of slides on instrument, staining combination and staining protocol. Using onboard drying and deparaffinization will add additional time to the throughput.

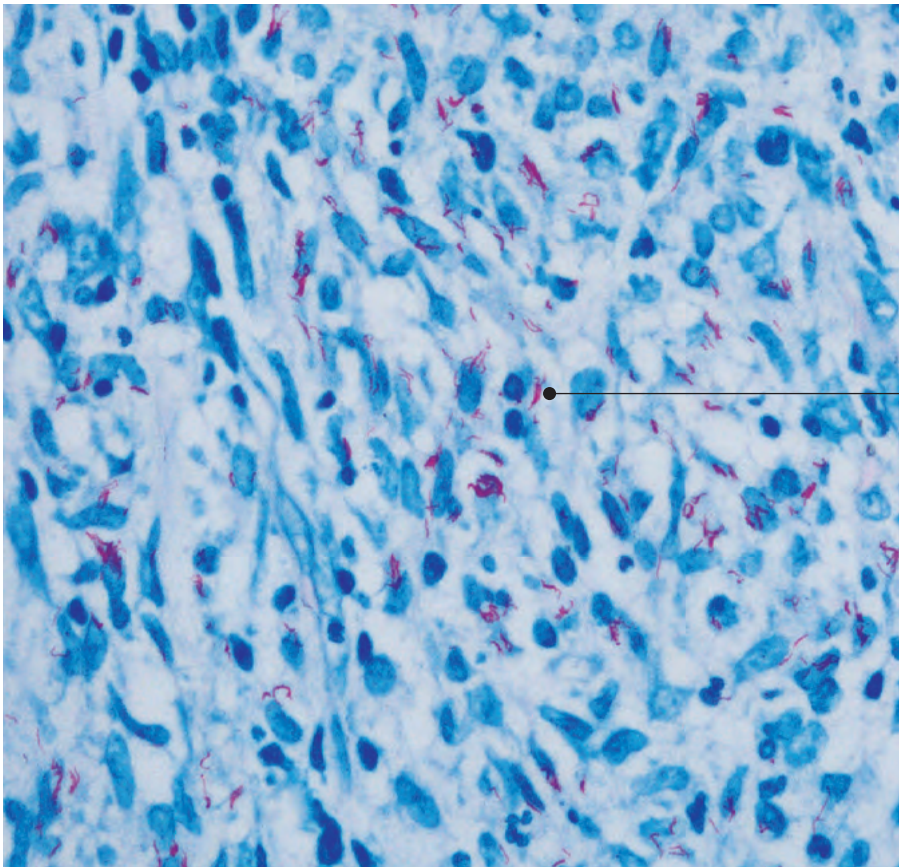
Note: This document is a general overview. For specific information on individual products, please consult that specific instruction for use.

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Acid-Fast Bacteria (AFB)

Intended for laboratory use to aid the identification, by light microscopy, of acid-fast organisms in tissue samples.

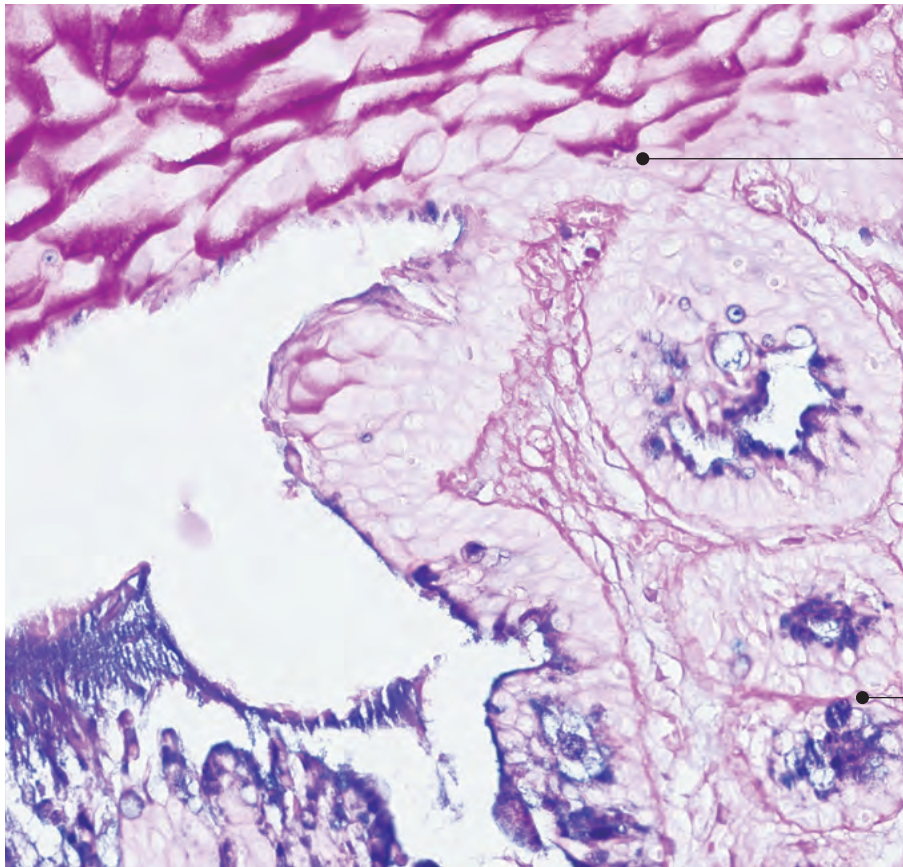


Acid-Fast Bacteria
Varying shades of red

Product Code	AR162
Staining Pattern:	- Acid-fast organisms: Varying shades of red - Background: Light blue
Section Thickness :	4 μ m
Control Tissue:	Tissue infected with acid-fast bacteria
Time per Slide*:	0:12:43

Alcian Blue/PAS

Intended for laboratory use to aid the identification, by light microscopy, of acidic and neutral mucins in tissue samples.



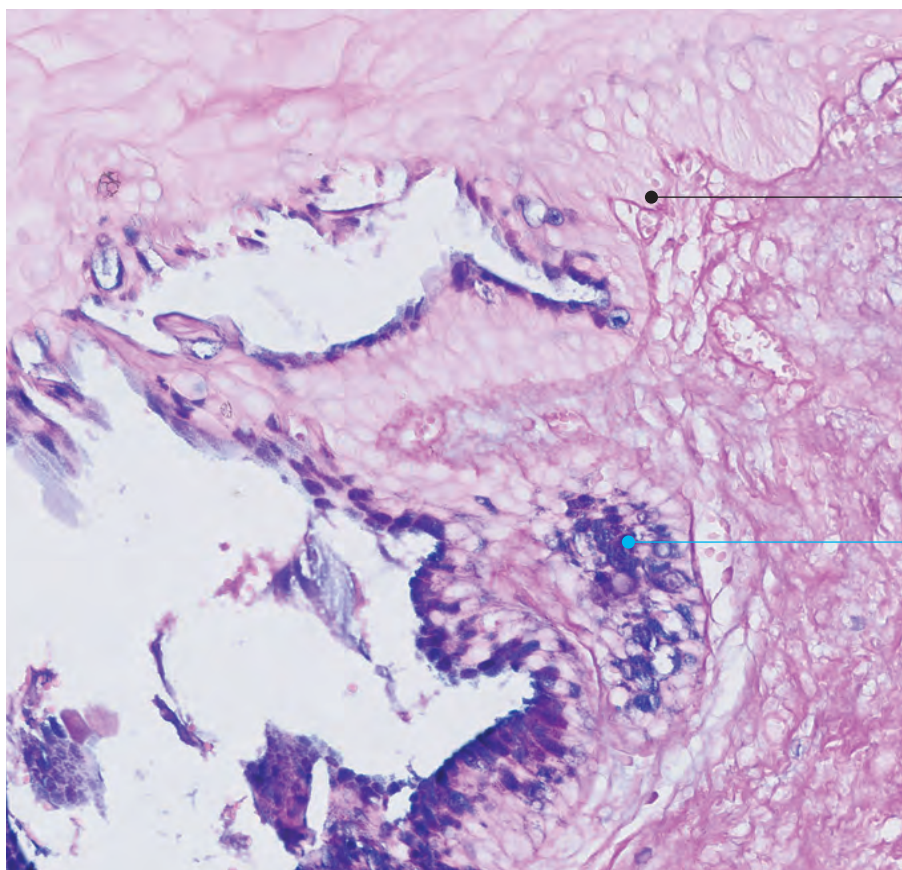
Glycogen

Acidic Mucins
Blue

Product Code	AR169
Staining Pattern:	<ul style="list-style-type: none">- Neutral mucins: Magenta- Acidic mucins: Blue- Mixtures of acidic and neutral mucins: Color depends on the dominant entity and will range from blue-purple or purple through violet or mauve
Section Thickness :	4 μ m
Control Tissue:	<ul style="list-style-type: none">- Neutral mucin: Stomach, prostate- Acidic mucin: Skin, umbilical cord- Weakly sulfated epithelial mucin: Large intestine
Time per Slide*:	0:22:18

Alcian Blue/PAS with Alpha-Amylase

Intended for laboratory use to aid the identification, by light microscopy, of acidic and neutral mucins in tissue samples. Alpha-amylase digestion removes any glycogen in the tissue.



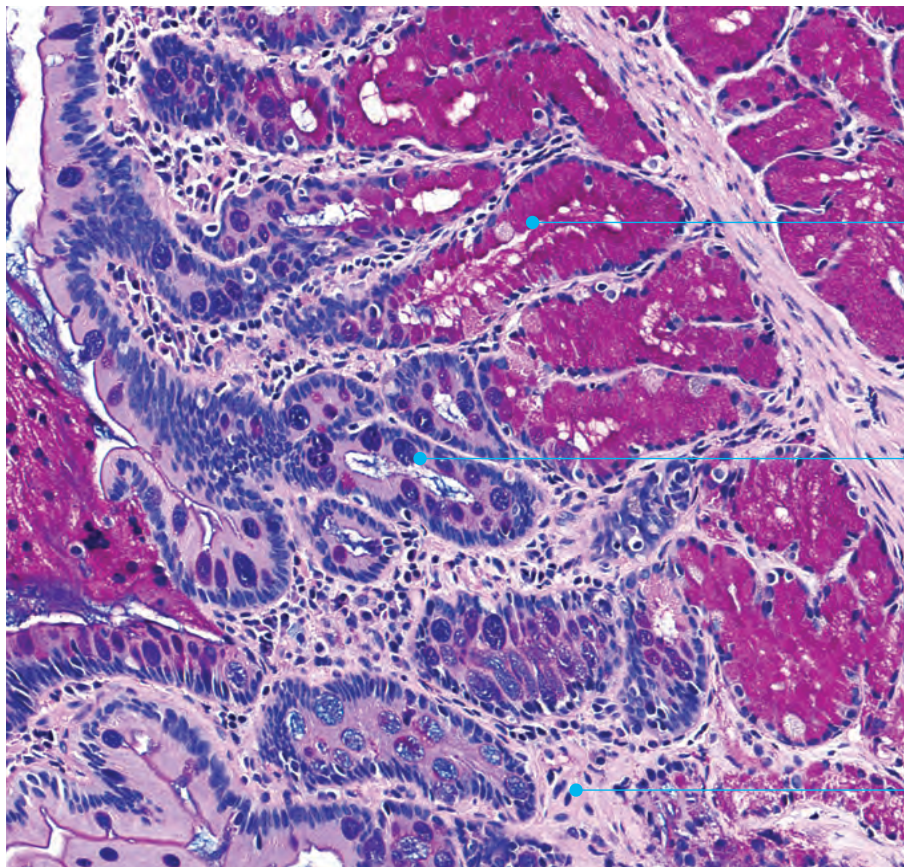
Digested Glycogen

Acidic Mucins
Blue

Product Code	AR169 (with AR171)
Staining Pattern:	<ul style="list-style-type: none">- Neutral mucins: Magenta- Acidic mucins: Blue- Mixtures of acidic and neutral mucins: Color depends on the dominant entity and will range from blue-purple to violet-mauve
Section Thickness :	4 μ m
Control Tissue:	Stomach, colon or umbilical cord
Time per Slide*:	0:37:45

Alcian Blue/PAS/Hematoxylin

Intended for laboratory use to aid the identification, by light microscopy, of acidic and neutral mucins in tissue samples.



Neutral Mucins
Magenta

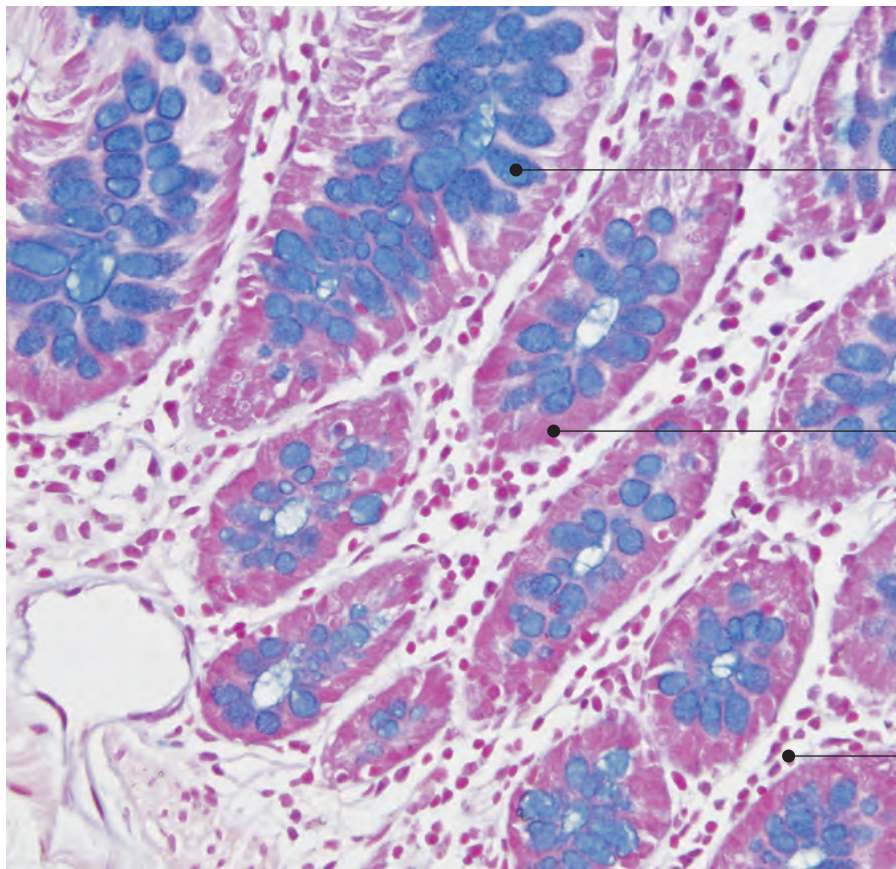
Acidic Mucins
Blue

Nuclei
Black to blue

Product Code	AR178
Staining Pattern:	<ul style="list-style-type: none">- Neutral mucins: Magenta- Acidic mucins: Blue- Mixtures of acidic and neutral mucins: Color depends on the dominant entity and will range from green or purple through violet or mauve- Nuclei: Black to blue
Section Thickness :	4 µm
Control Tissue:	<ul style="list-style-type: none">- Neutral mucin: Stomach, prostate- Acidic mucin: Skin, umbilical cord- Weakly sulfated epithelial mucin: Large intestine
Time per Slide*:	0:36:29

Alcian Blue pH 2.5

Intended for laboratory use to aid the identification, by light microscopy, of acidic and neutral mucins in tissue samples.



Weakly sulfated acidic mucopolysaccharides, sulfomucins, hyaluronic acid, sialomucins:
Dark blue

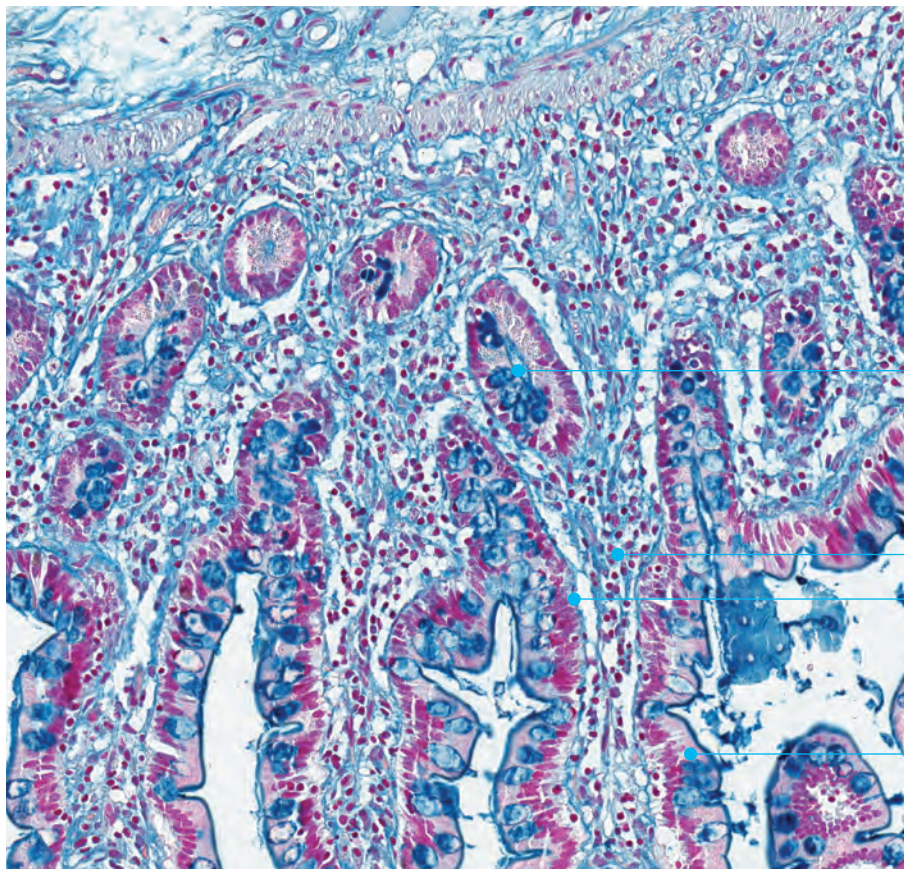
Cytoplasm:
Pale pink

Nuclei:
Red to pink

Product Code	AR160
Staining Pattern:	<ul style="list-style-type: none">- Weakly sulfated acidic mucopolysaccharides, sulfomucins, hyaluronic acid, sialomucins: Dark blue- Nuclei: Red to pink- Cytoplasm: Pale pink
Section Thickness :	4 μ m
Control Tissue:	Small intestine, umbilical cord or colon
Time per Slide*:	0:26:03

Colloidal Iron

Intended for laboratory use to aid the identification, by light microscopy, of carboxylated and sulfated mucopolysaccharides and glycoprotein mucin in tissue samples.



**Carboxylated and Sulfated
Mucopolysaccharides and
Glycoprotein Mucin:**
Dark blue

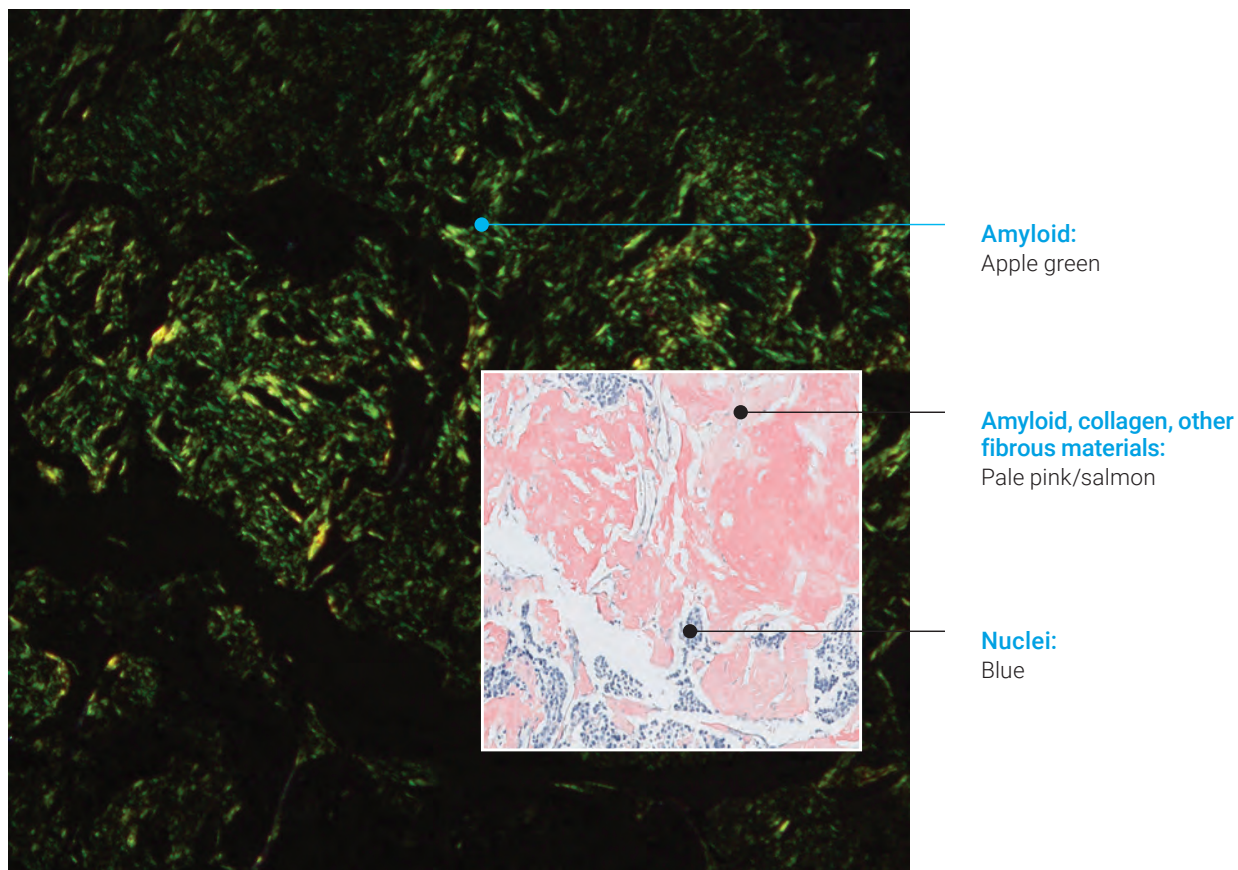
Nuclei:
Light pink

Cytoplasm:
Light pink

Product Code	AR307
Staining Pattern:	<ul style="list-style-type: none">- Carboxylated and sulfated mucopolysaccharides and glycoprotein mucin: Dark blue- Nuclei: Light pink- Cytoplasm: Light pink
Section Thickness :	4 μ m
Control Tissue:	Small intestine
Time per Slide*:	0:40:16

Congo Red

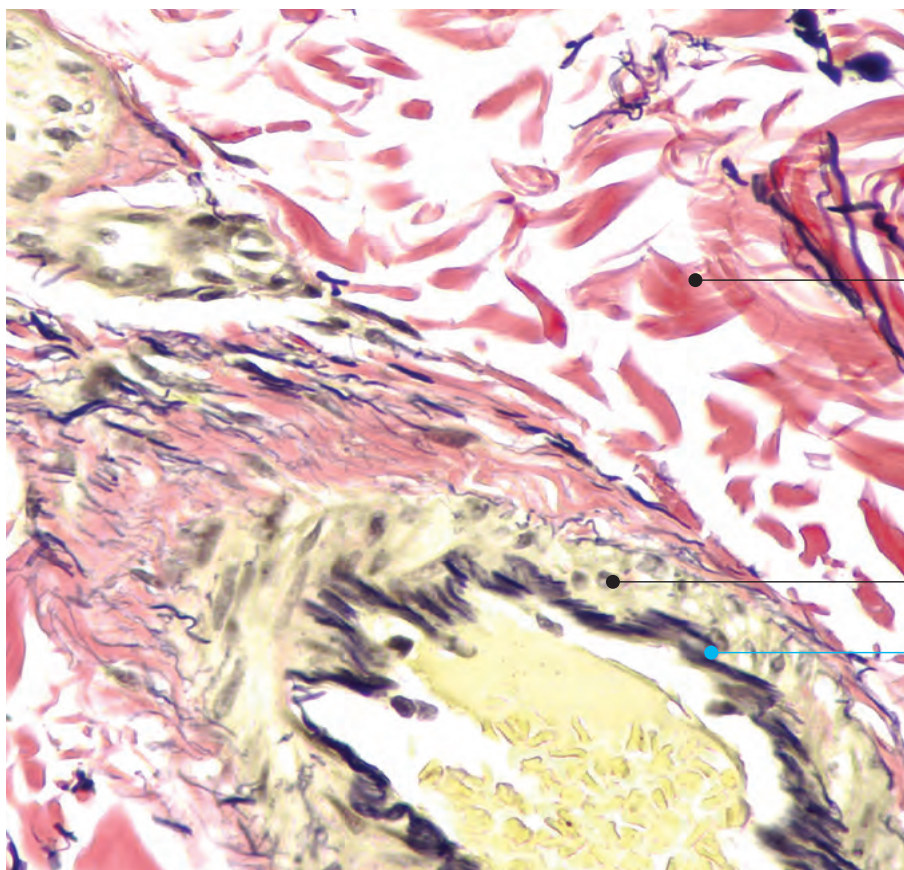
Intended for laboratory use to aid the identification, by polarized light microscopy, of amyloid in tissue samples.



Product Code	AR161
Staining Pattern:	Polarized Light Microscopy – Amyloid: Apple green Light Microscopy – Amyloid, collagen, other fibrous materials: Pale Pink/salmon – Nuclei: Blue
Section Thickness :	8 µm
Control Tissue:	Tissue with amyloid or heart tissue
Time per Slide*:	0:31:16

Elastic

Intended for laboratory use to aid the identification, by light microscopy, of elastic fibers in tissue samples.



Collagen:
Red

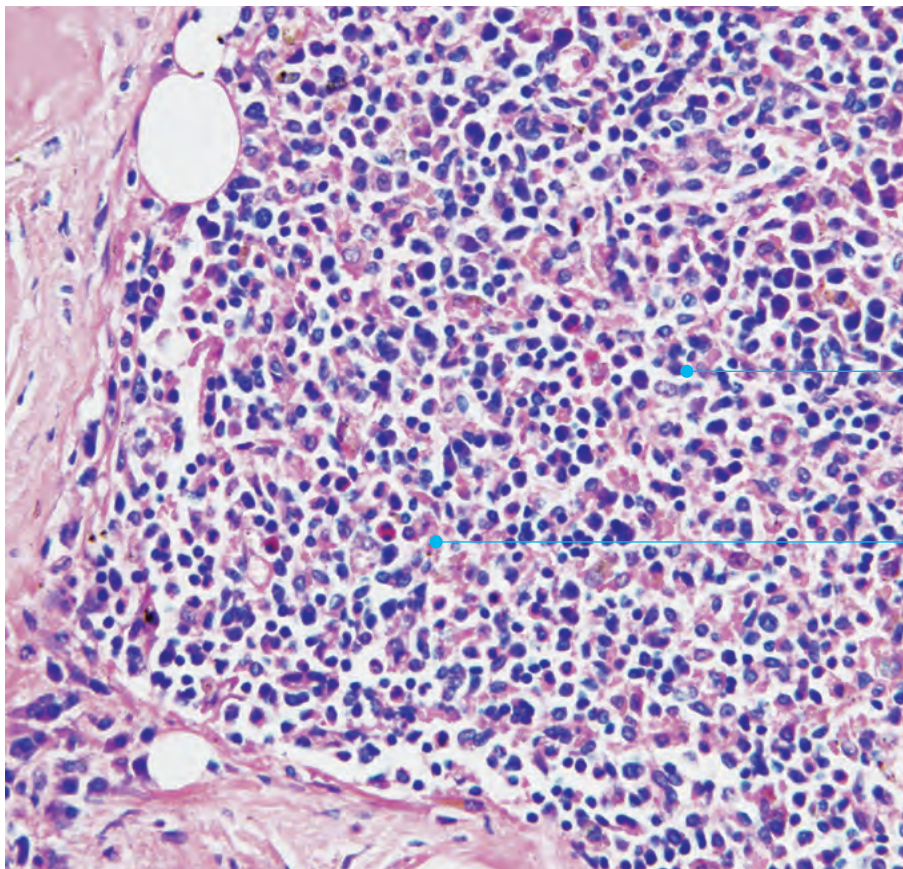
Nuclei:
Blue to black

Elastic Fibers:
Black

Product Code	AR163
Staining Pattern:	<ul style="list-style-type: none">- Elastin fibers: Black- Nuclei: Blue to black- Collagen: Red- Other tissue elements: Yellow
Section Thickness :	4 μ m
Control Tissue:	Cross section of artery, appendix and skin
Time per Slide*:	0:19:20

Giemsa

Intended for laboratory use to aid the identification, by light microscopy, of hematopoietic cells in tissue samples.



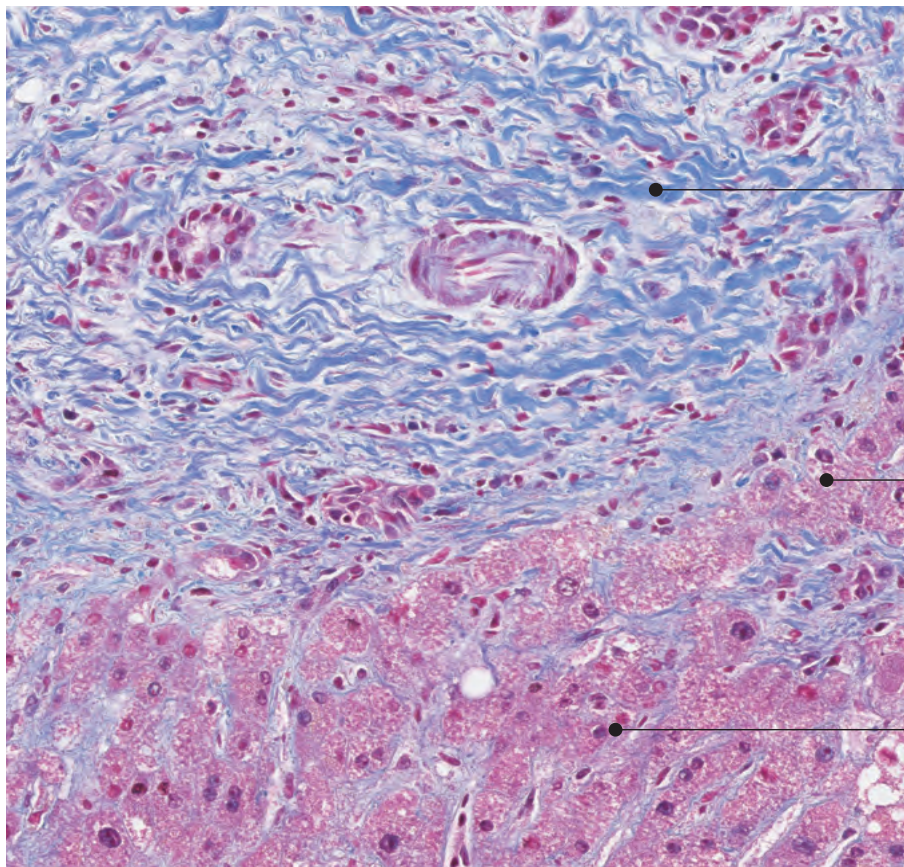
Lymphocytes:
Blue

Eosinophils:
Bright pink

Product Code	AR164
Staining Pattern:	<ul style="list-style-type: none">- Mast cell granules: Purple- Basophils: Purple- Eosinophils: Bright pink- Lymphocytes: Blue
Section Thickness :	4 μ m
Control Tissue:	Tissue containing mast cells
Time per Slide*:	01:01:48

Gomori's Blue Trichrome

Intended for laboratory use to aid the identification, by light microscopy, of connective tissue in tissue samples.



Collagen:
Blue

Cytoplasm:
Red

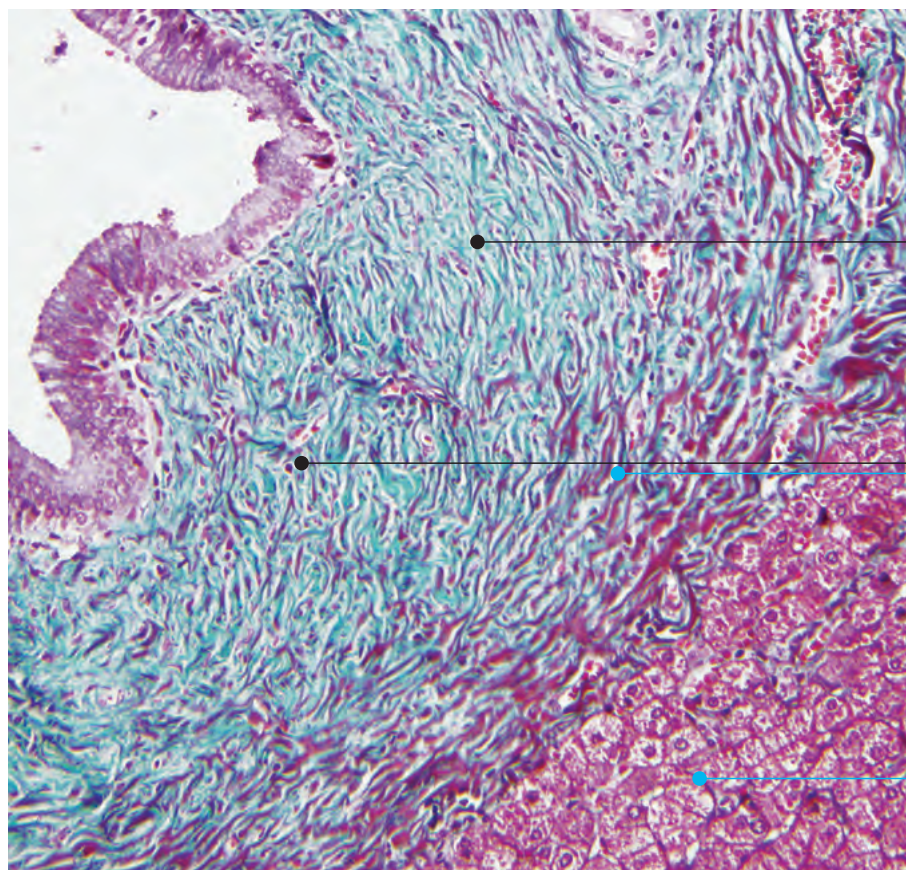
Nuclei:
Blue or black

Product Code	AR167 [†]
Staining Pattern:	<ul style="list-style-type: none">- Cytoplasm: Red- Fibrin: Pink- Collagen: Blue- Nuclei: Blue or black- Erythrocytes: Red
Section Thickness :	4 µm
Control Tissue:	Uterus, kidney and liver
Time per Slide*:	0:45:02

[†]AR167 Gomori's Blue Trichrome, Artisan is not available in all markets.

Gomori's Green Trichrome

Intended for laboratory use to aid the identification, by light microscopy, of connective tissue in tissue samples.



Collagen:
Green

Nuclei:
Blue or black

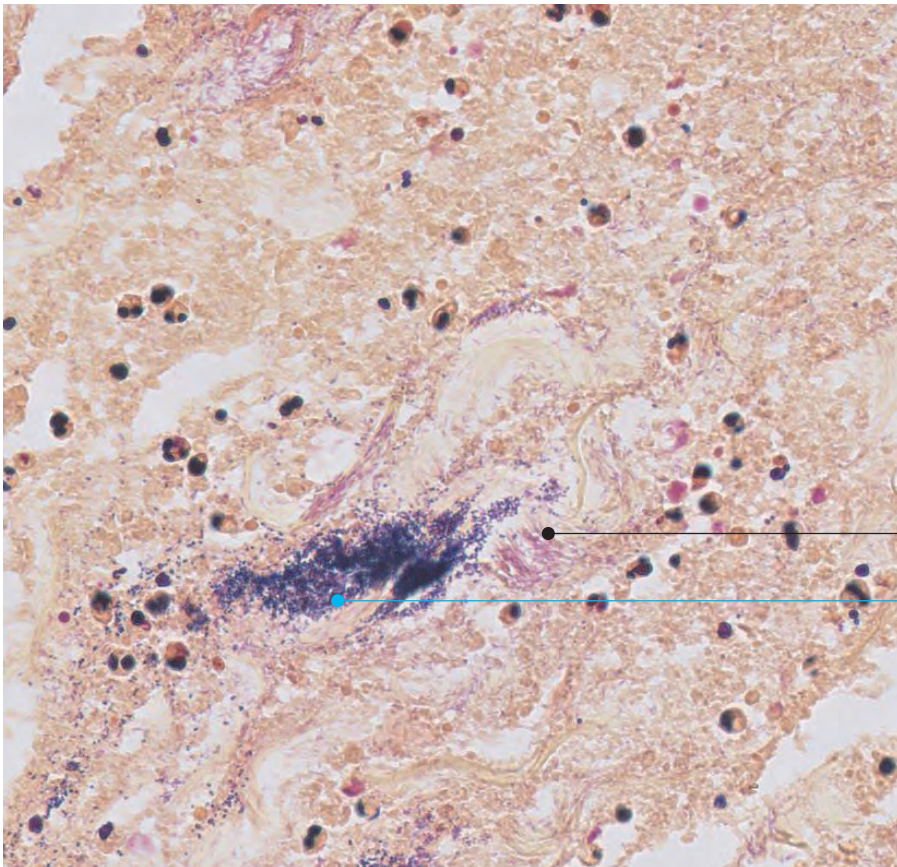
Fibrin:
Pink

Cytoplasm:
Red

Product Code	AR166
Staining Pattern:	<ul style="list-style-type: none">- Cytoplasm: Red- Fibrin: Pink- Collagen: Green- Nuclei: Blue or black- Erythrocytes: Red
Section Thickness :	4 μ m
Control Tissue:	Uterus, small intestine, liver, appendix, and fallopian tube.
Time per Slide*:	0:29:13

Gram Yellow

Intended for laboratory use to aid the identification, by light microscopy, of Gram-positive and Gram-negative microorganisms in tissue samples.



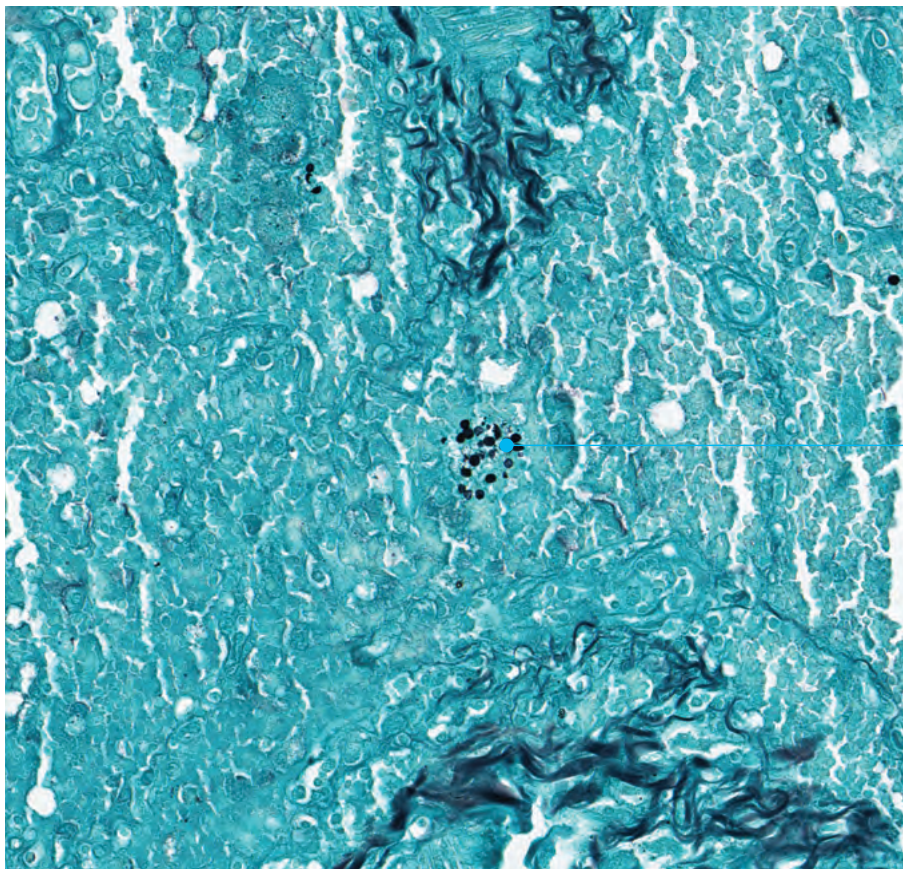
Gram-negative Bacteria:
Light pink to magenta

Gram-positive Bacteria:
Dark blue

Product Code	AR306
Staining Pattern:	<ul style="list-style-type: none">- Gram-positive bacteria: Dark blue- Gram-negative bacteria: Light pink to magenta- Background: Yellow
Section Thickness :	4 µm
Control Tissue:	Tissue containing both Gram-positive and Gram-negative bacteria.
Time per Slide*:	0:41:01

Grocott's Methenamine Silver (GMS)

Intended for laboratory use to aid the identification, by light microscopy, of fungal organisms in tissue samples.

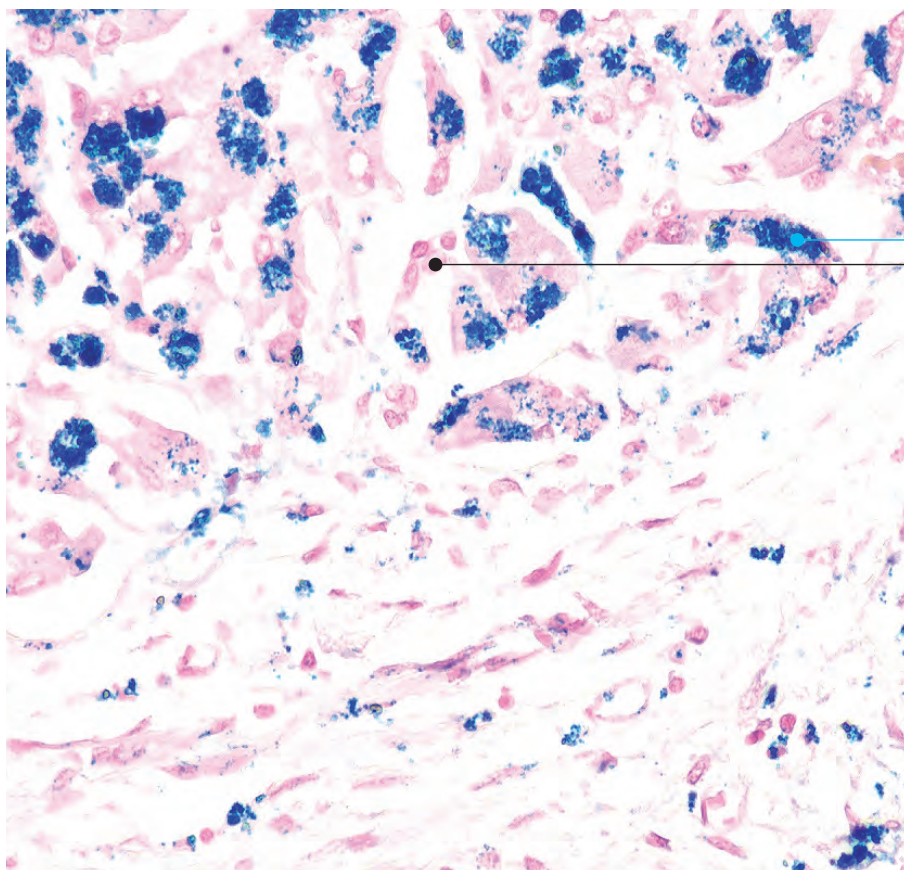


Fungi:
Black

Product Code	AR176
Staining Pattern:	<ul style="list-style-type: none">- Fungi: Black- Pneumocystis: Black- Background: Light green
Section Thickness :	4 μ m
Control Tissue:	Tissue with <i>Aspergillus</i> , <i>Candida</i> , or <i>Pneumocystis</i>
Time per Slide*:	0:50:19

Iron

Intended for laboratory use to aid the identification, by light microscopy, of ferric iron deposits in tissue samples.

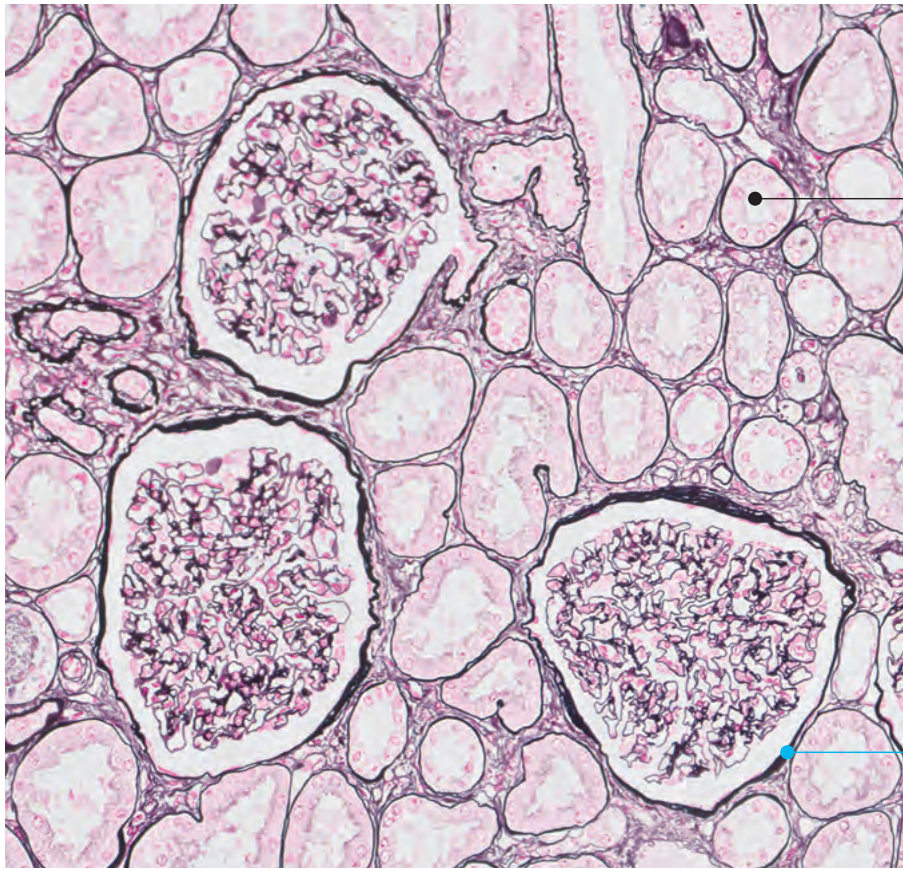


Ferric Iron:
Blue
Nuclei:
Red

Product Code	AR158
Staining Pattern:	<ul style="list-style-type: none">- Ferric iron: Blue- Nuclei: Red- Background: Pink
Section Thickness :	4 μ m
Control Tissue:	Spleen or liver with iron deposits
Time per Slide*:	0:09:58

Jones' Basement Membrane (PAS-M)

Intended for laboratory use to aid the identification, by light microscopy, of basement membranes in tissue samples.



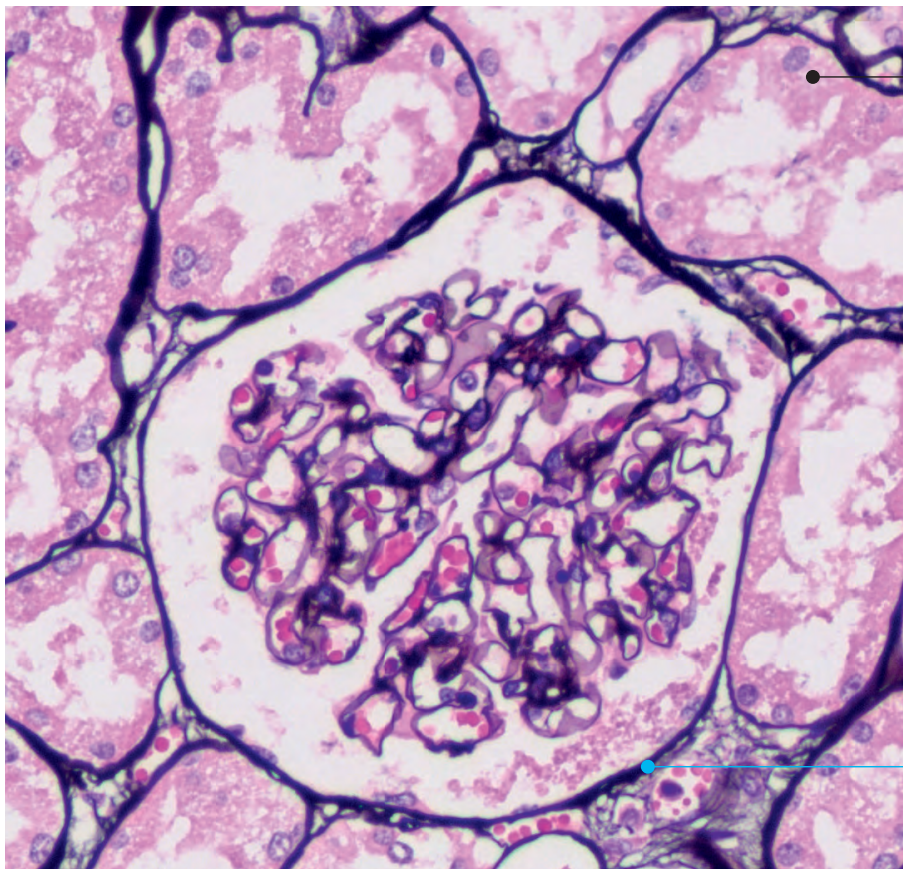
Nuclei:
Red

Basement Membrane:
Black

Product Code	AR180
Staining Pattern:	- Basement membrane: Black - Nuclei: Red - Background: Pink
Section Thickness :	2 μ m
Control Tissue:	Kidney with glomeruli
Time per Slide*:	0:52:53

Jones' Basement Membrane (PAS-M) H&E

Intended for laboratory use to aid the identification, by light microscopy, of basement membranes in tissue samples.



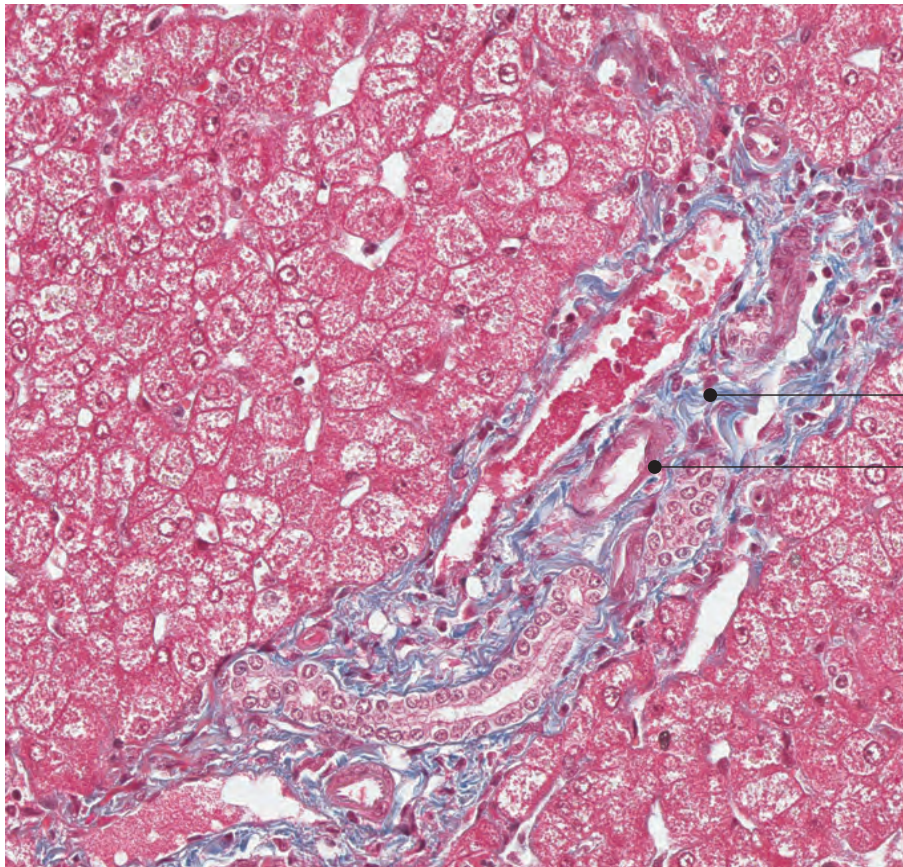
Nuclei:
Blue

Basement Membrane:
Black

Product Code	AR480
Staining Pattern:	<ul style="list-style-type: none">- Basement membrane: Black- Nuclei: Blue- Background: Pink
Section Thickness :	2 μ m
Control Tissue:	Kidney with glomeruli
Time per Slide*:	0:45:21

Masson's Trichrome

Intended for laboratory use to aid the identification, by light microscopy, of connective tissue and muscle in tissue samples.



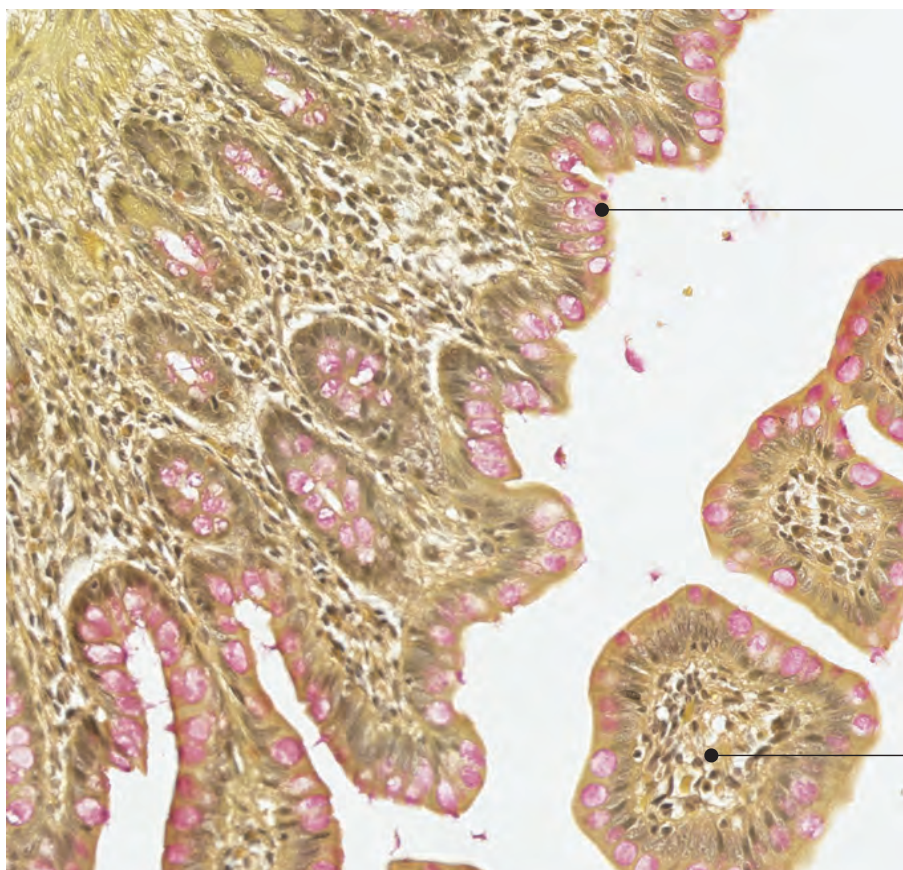
Collagen:
Blue

Muscle:
Red

Product Code	AR173
Staining Pattern:	<ul style="list-style-type: none">- Muscle fibers: Red- Fibrin: Pink- Collagen: Blue- Nuclei: Blue or black- Erythrocytes: Red
Section Thickness :	4 μ m
Control Tissue:	Uterus, small intestine, liver, appendix, or fallopian tube
Time per Slide*:	0:57:15

Mucicarmine

Intended for laboratory use to aid the identification, by light microscopy, of epithelial mucins in tissue samples.



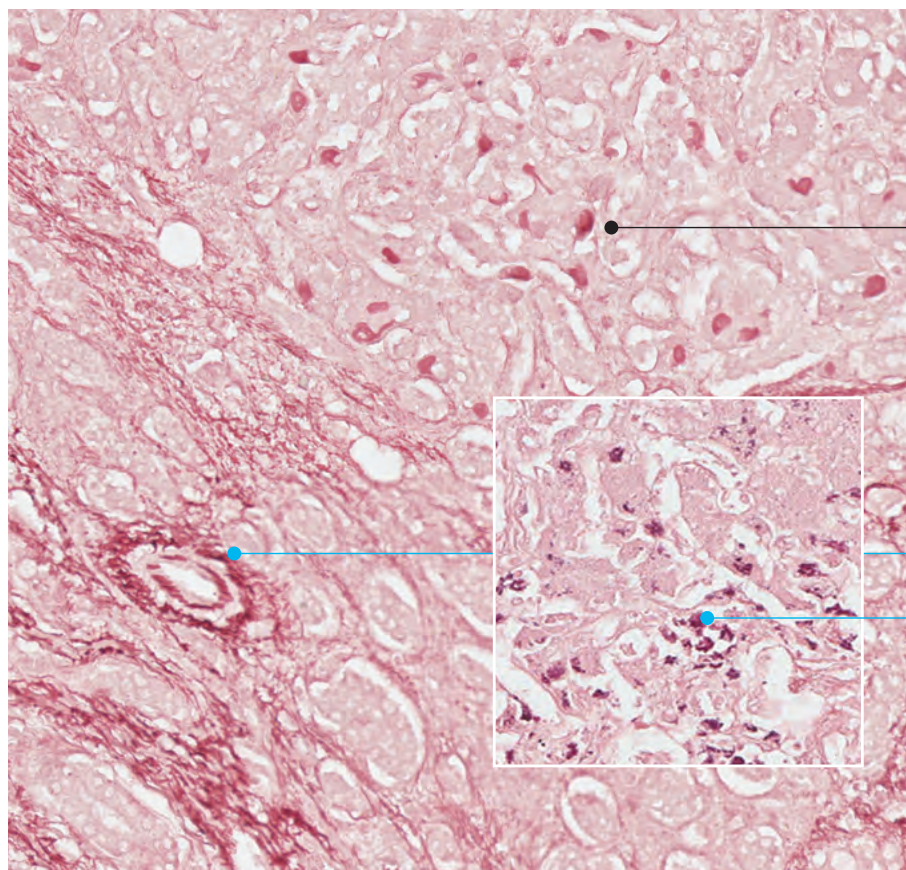
Mucin:
Pink

Nuclei:
Black

Product Code	AR168
Staining Pattern:	– Mucin: Pink – Nuclei: Black – Background: Yellow
Section Thickness :	4 μ m
Control Tissue:	Small intestine, colon, or appendix
Time per Slide*:	0:50:54

Orcein

Intended for laboratory use to aid the identification, by light microscopy, of viral inclusion bodies, elastic fibers, and copper-associated proteins in tissue samples.



Viral Inclusion Bodies:
Dark reddish brown

Elastin Fibers:
Dark reddish brown

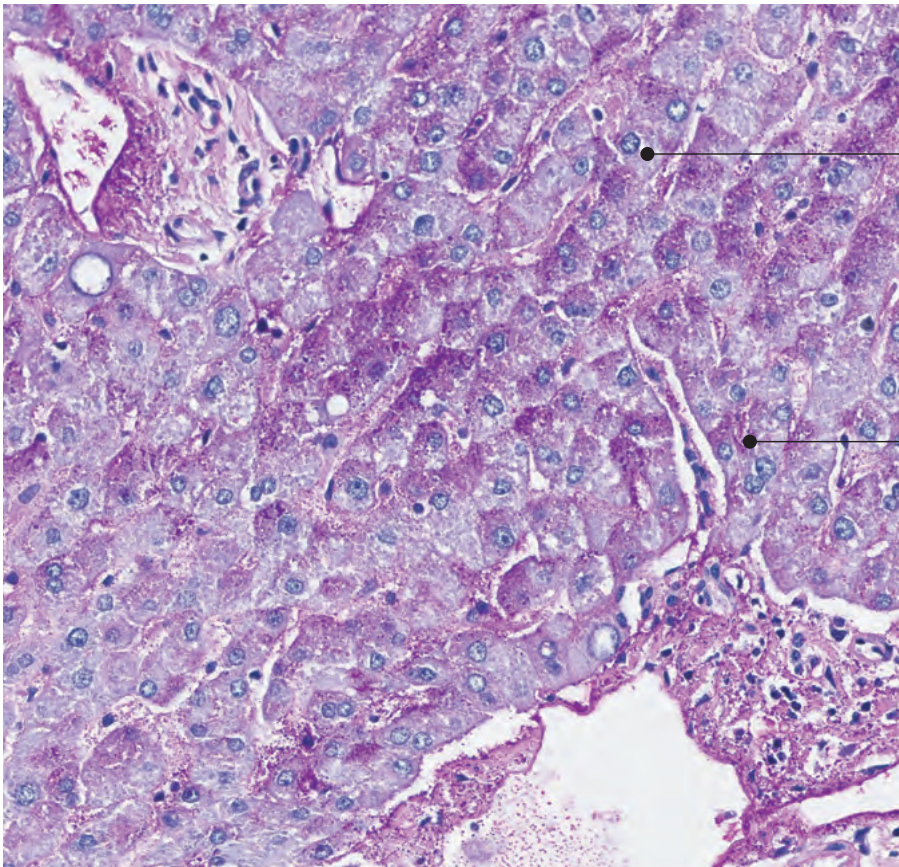
Copper:
Dark red-purple

Product Code	AR313 [†]
Staining Pattern:	<ul style="list-style-type: none"> - Viral inclusion bodies/elastin fibers: Dark reddish brown - Copper-associated protein: Dark red-purple - Background: Pale pink to pink
Section Thickness :	4 μm
Control Tissue:	Liver tissue positive viral inclusion bodies. Fetal liver can be used for copper or liver with copper-accumulation. A multi-block containing normal liver and liver positive for viral inclusion bodies and copper is recommended.
Time per Slide*:	0:15:44

[†]AR313 Orcein, Artisan is not available in all markets.

Periodic Acid-Schiff (PAS)

Intended for laboratory use to aid the identification, by light microscopy, of glycogen and muco-polysaccharide components in tissue samples.



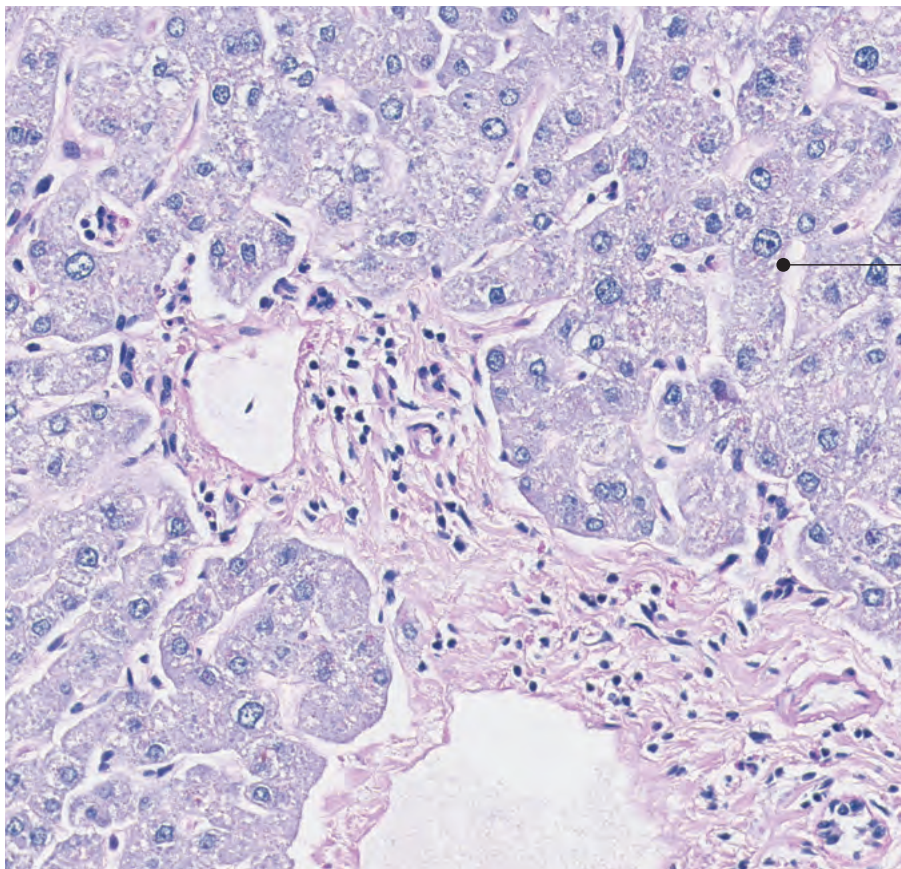
Nuclei:
Blue

PAS-positive structures:
Magenta

Product Code	AR165
Staining Pattern:	<ul style="list-style-type: none">- PAS-positive structures: Magenta- Nuclei: Blue- Background: Pink
Section Thickness :	4 μ m
Control Tissue:	<ul style="list-style-type: none">- Kidney for basement membrane- Liver with glycogen
Time per Slide*:	0:59:59

Periodic Acid-Schiff (PAS) with Alpha-Amylase

Intended for laboratory use to aid the identification, by light microscopy, of glycogen and mucopoly-saccharide components in tissue samples. Alpha-amylase digestion removes glycogen in the tissue.

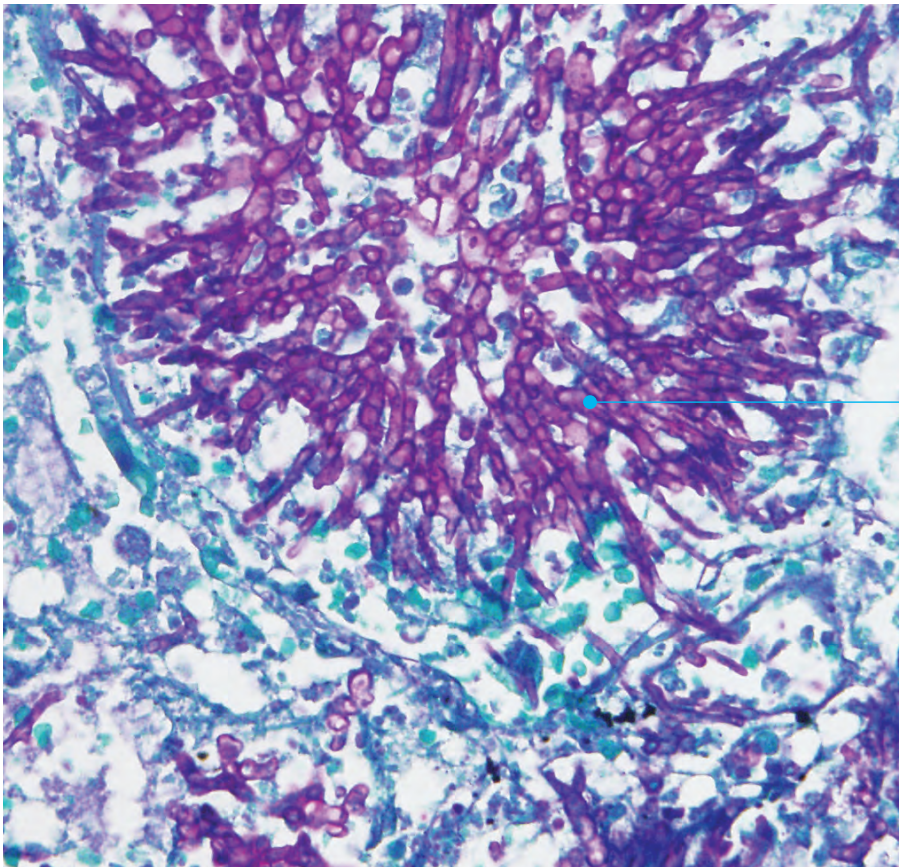


Nuclei:
Blue

Product Code	AR165 (with AR171)
Staining Pattern:	- Nuclei: Blue - Background: Pink
Section Thickness :	4 μ m
Control Tissue:	Liver containing glycogen
Time per Slide*:	01:14:02

Periodic Acid-Schiff (PAS) Green

Intended for laboratory use to aid the identification, by light microscopy, of fungi in tissue samples.

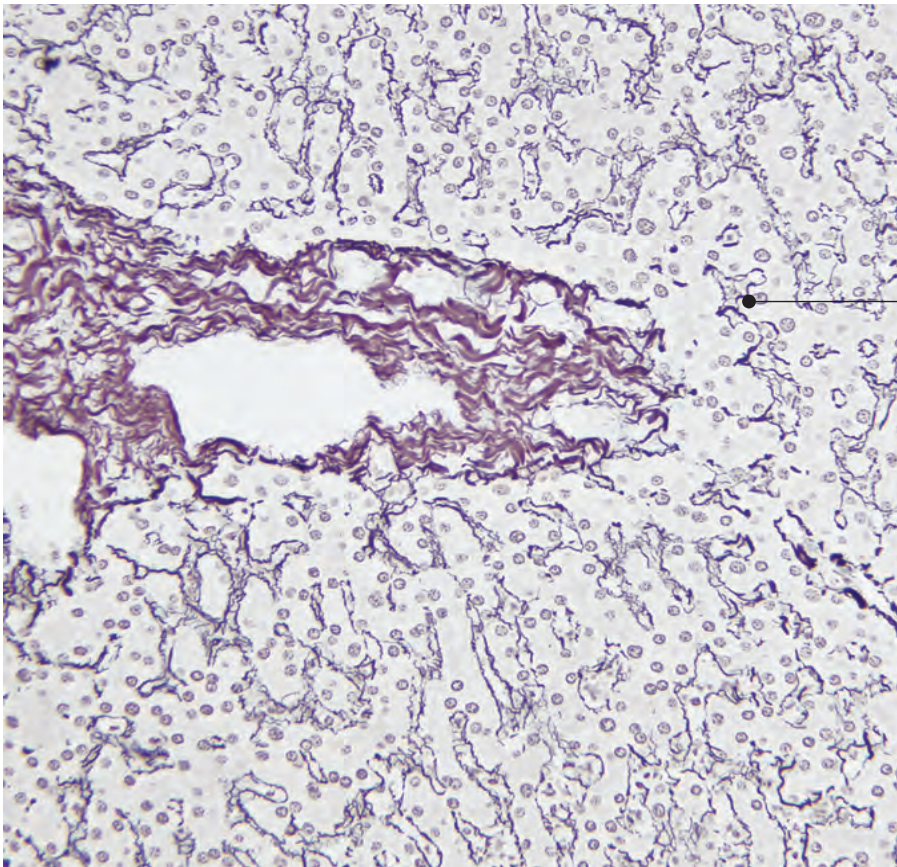


Fungi:
Magenta

Product Code	AR172
Staining Pattern:	- Fungi: Magenta - Background: Blue - green
Section Thickness :	4 μ m
Control Tissue:	Skin tissue with <i>Candida albicans</i>
Time per Slide*:	0:24:12

Reticulin/No Counterstain

Intended for laboratory use to aid the identification, by light microscopy, of reticulin fibers in tissue samples.

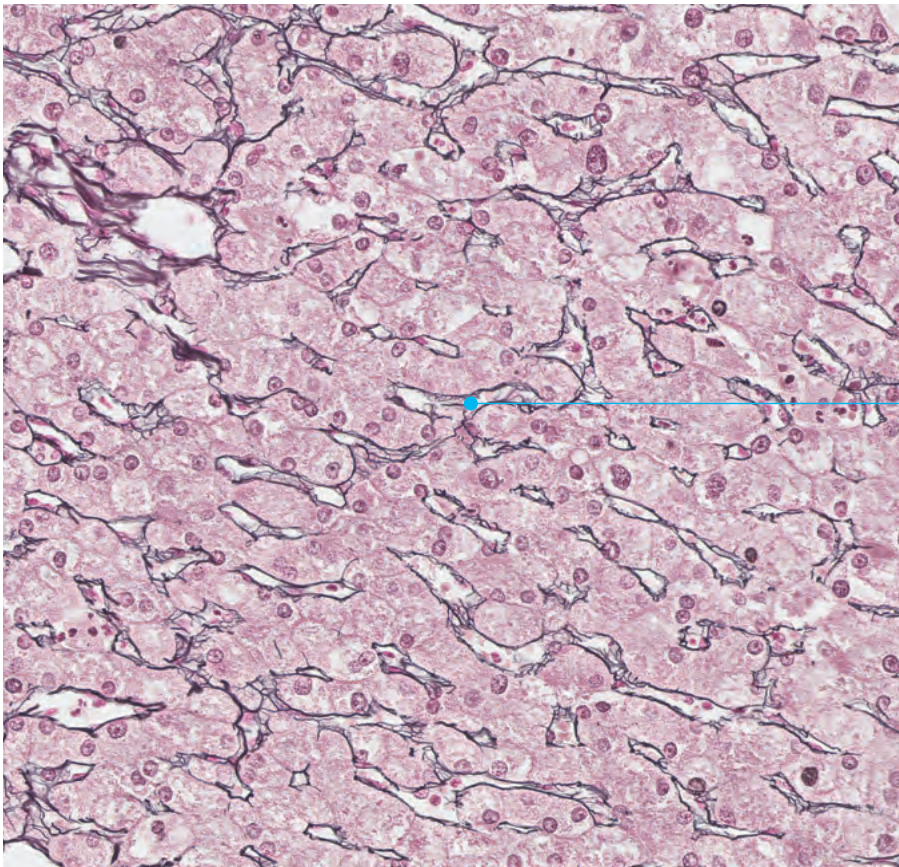


Reticulin Fibers:
Black

Product Code	AR182
Staining Pattern:	– Reticulin fibers: Black
Section Thickness :	4 µm
Control Tissue:	Liver, spleen and lymph node
Time per Slide*:	00:38:57

Reticulin/Nuclear Fast Red

Intended for laboratory use to aid the identification, by light microscopy, of reticulin fibers in tissue samples.

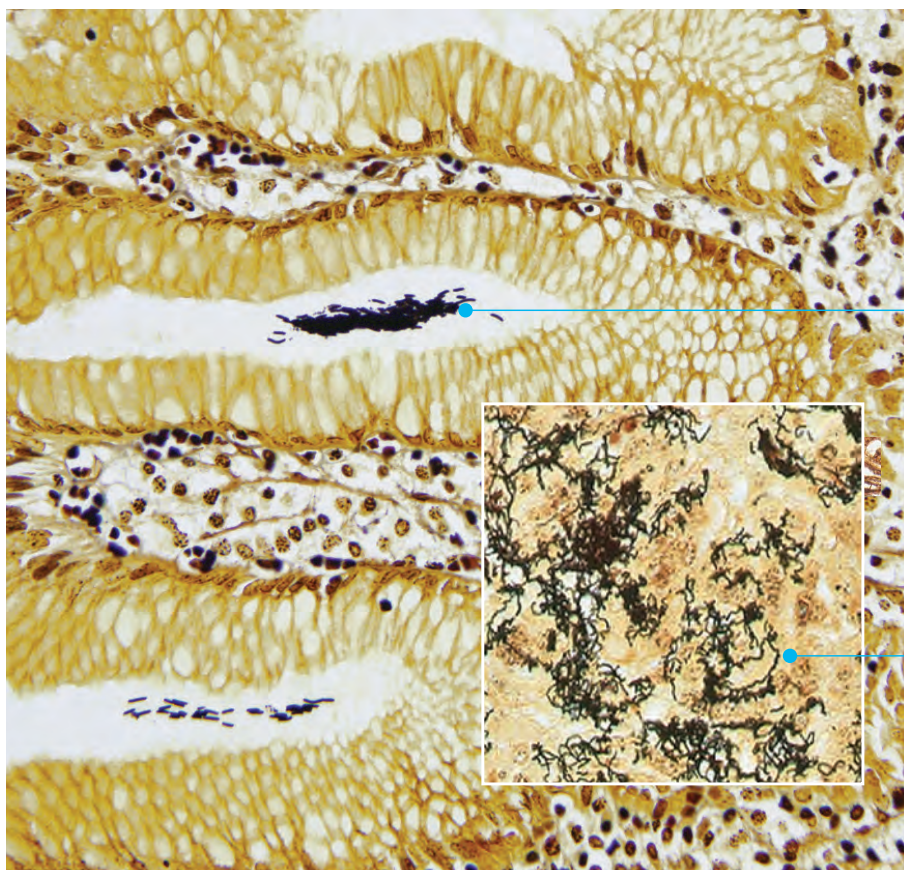


Reticulin Fibers:
Black

Product Code	AR179
Staining Pattern:	- Reticulin fibers: Black - Background: Red
Section Thickness :	4 μ m
Control Tissue:	Liver, spleen, or lymph node
Time per Slide*:	01:02:59

Warthin-Starry

Intended for laboratory use to aid the identification, by light microscopy, of argyrophilic organisms in tissue samples.



Argyrophilic organisms:
Black

Argyrophilic organisms:
Black

Product Code	AR181
Staining Pattern:	- Argyrophilic organisms: Black - Background: Golden yellow
Section Thickness :	4 μ m
Control Tissue:	Tissue with helicobacter and spirochetes
Time per Slide*:	00:07:38



Artisan Link Pro Solution

The consistent, safety-focused and easy choice for special stains.

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- Fully automated with on-board drying and deparaffinization capabilities
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- Waste separation into four separate streams
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- Complete data and staining transparency enabling optimized performance and full traceability
- Dedicated and experienced service and support teams are ready to help you achieve your goals and perform at your best.



For additional information on Artisan Link Pro or other Dako solutions, contact your local Agilent representative or visit

www.agilent.com

D49410_02

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