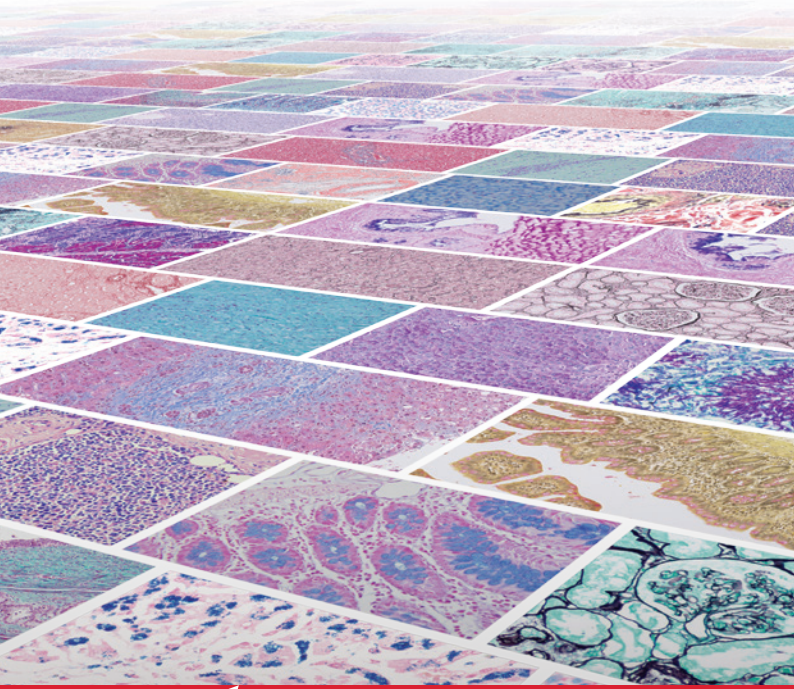
PRODUCT INFORMATION

Histostaining | Atlas of Special Stains

Dako

A Better Path™



Agilent Technologies

Intended use

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 Dako's Artisan Staining System and require no mixing 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 Dako 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.

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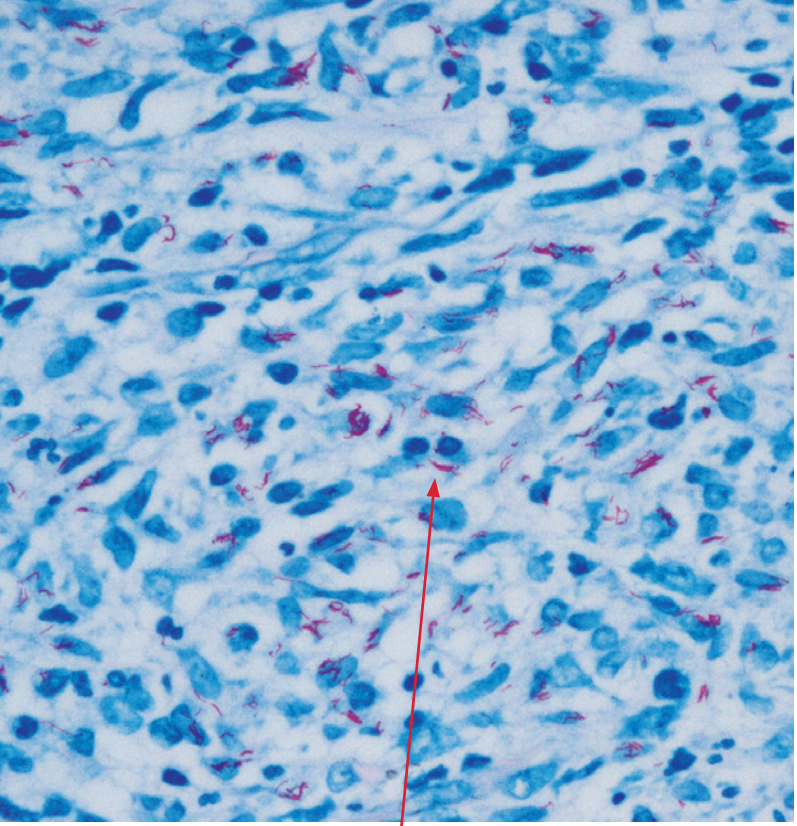

Acid-Fast Bacteria:
Varying shades of red

Acid-Fast Bacteria (AFB)

Intended for laboratory use to identify, by light microscopy, acid-fast bacteria, such as Mycobacterium, in tissue samples.

Product Code:	AR162
Staining Interpretation:	■ Acid-fast bacteria: Varying shades of red ■ Background: Light blue
Cut Thickness:	4 µm
Control Tissue:	Tissue infected with acid-fast bacteria
Time per Slide*:	0:12:43

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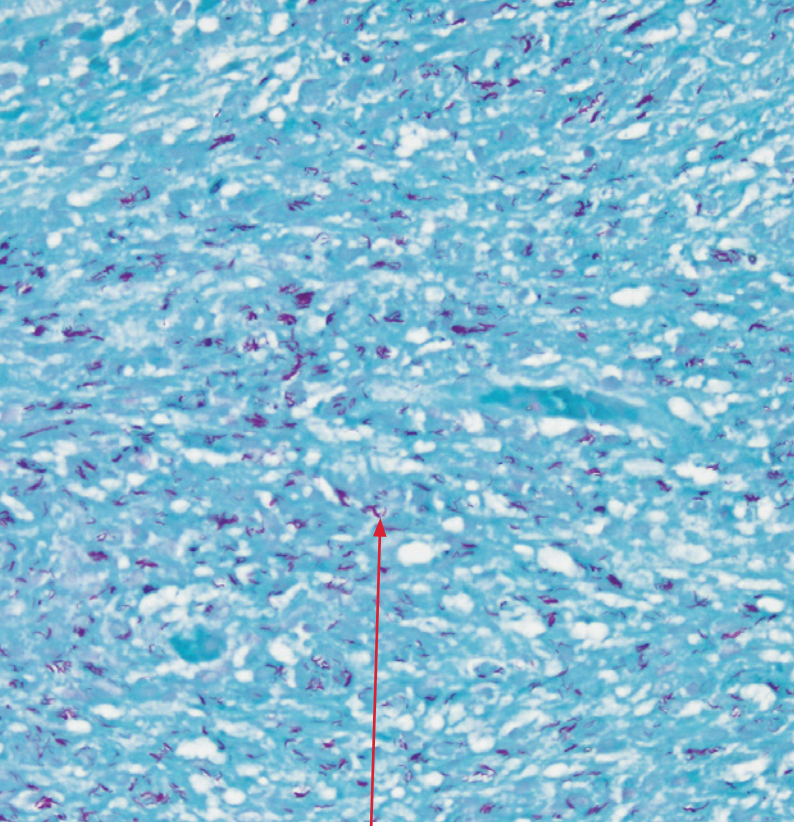

Acid-Fast Bacteria:
Red

Acid-Fast Bacteria (AFB) Light Green

Intended for laboratory use to identify, by light microscopy, acid-fast bacteria, such as Mycobacterium, in tissue samples.

Product Code:	AR362
Staining Interpretation:	■ Acid-fast bacteria: Varying shades of red ■ Background: Light green
Cut Thickness:	4 µm
Control Tissue:	Tissue infected with acid-fast bacteria
Time per Slide*:	0:12:43

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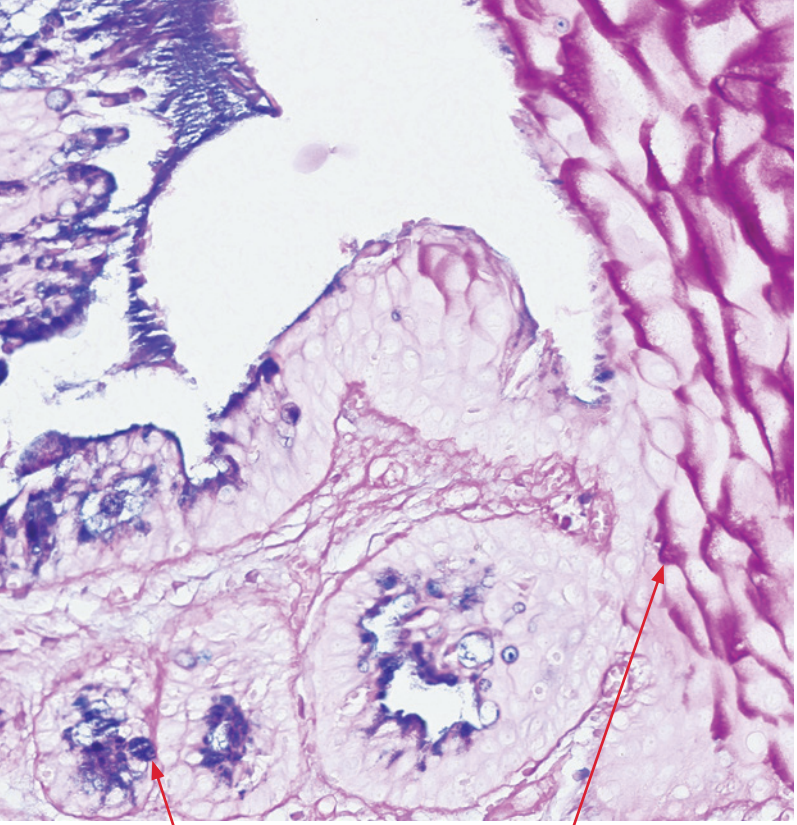

Acidic Mucins:
Blue

Glycogen

Alcian Blue/PAS

Intended for laboratory use to identify, by light microscopy, acidic and neutral mucins in tissue samples.

Product Code:	AR169
Staining Interpretation:	■ 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
Cut Thickness:	4 µm
Control Tissue:	■ Neutral Mucin: Stomach, prostate ■ Acidic Mucin: Skin, umbilical cord ■ Weakly sulfated epithelial mucin: Large intestine
Time per Slide*:	0:22:18

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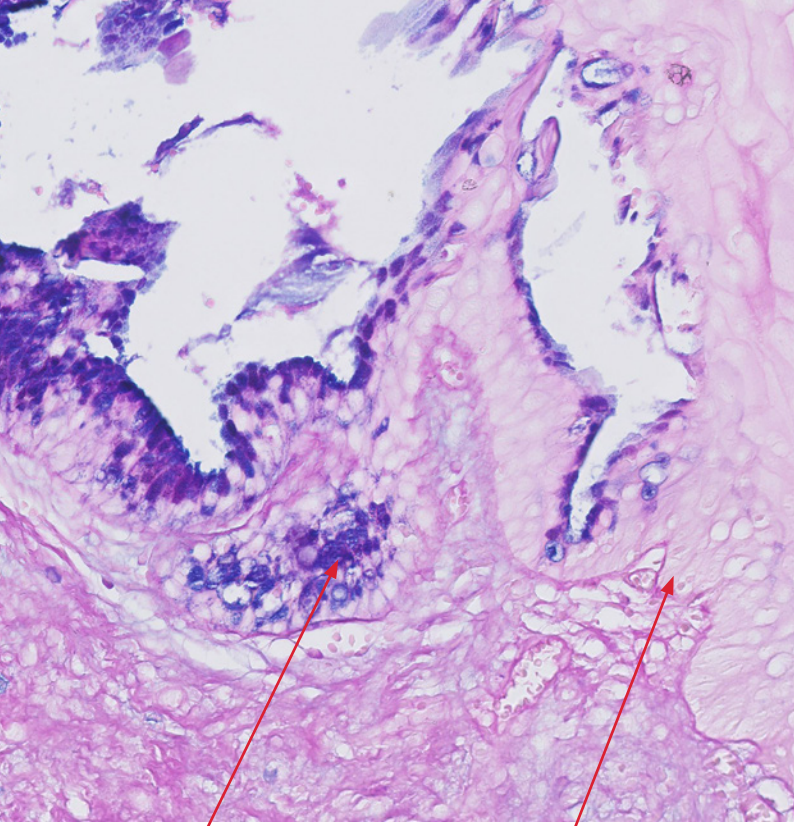

Acidic Mucins:
Blue

Digested Glycogen

Alcian Blue/PAS with Alpha-Amylase

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

Product Code:	AR169 (with AR171)
Staining Interpretation:	■ 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
Cut Thickness:	4 µm
Control Tissue:	Stomach, colon or umbilical cord
Time per Slide*:	0:37:45

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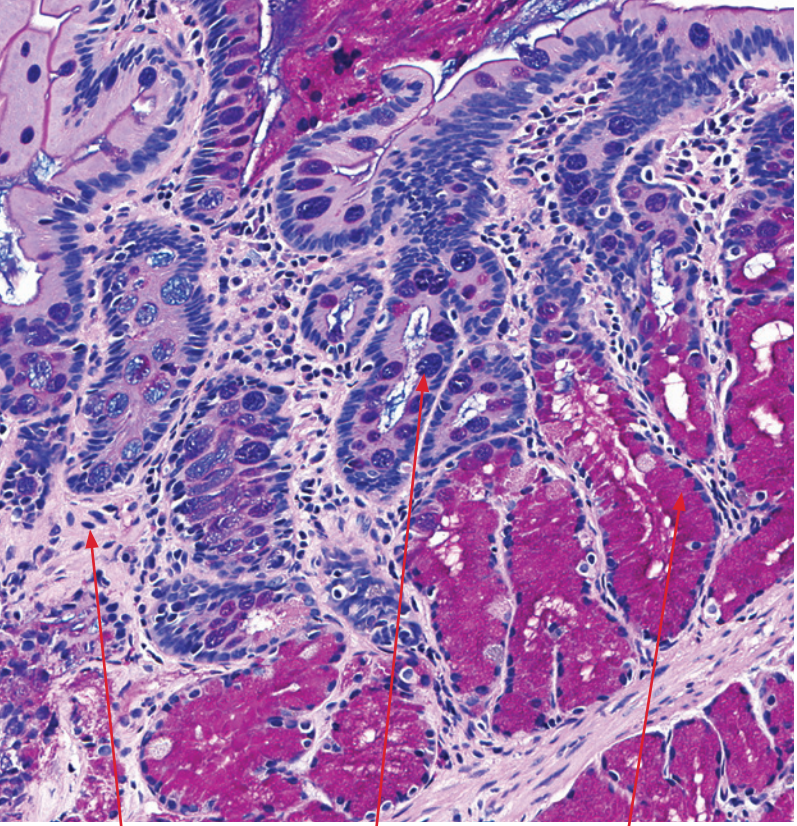

Nucleus:
Black to blue

Acidic Mucins:
Blue

Neutral Mucins:
Magenta

Alcian Blue/PAS/Hematoxylin

Intended for laboratory use to identify, by light microscopy, acidic and neutral mucins in tissue samples.

Product Code:	AR178
Staining Interpretation:	■ 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 ■ Nucleus: Black to blue
Cut Thickness:	4 µm
Control Tissue:	■ Neutral Mucin: Stomach, prostate ■ Acidic Mucin: Skin, umbilical cord ■ Weakly sulfated epithelial mucin: Large intestine
Time per Slide*:	0:36:29

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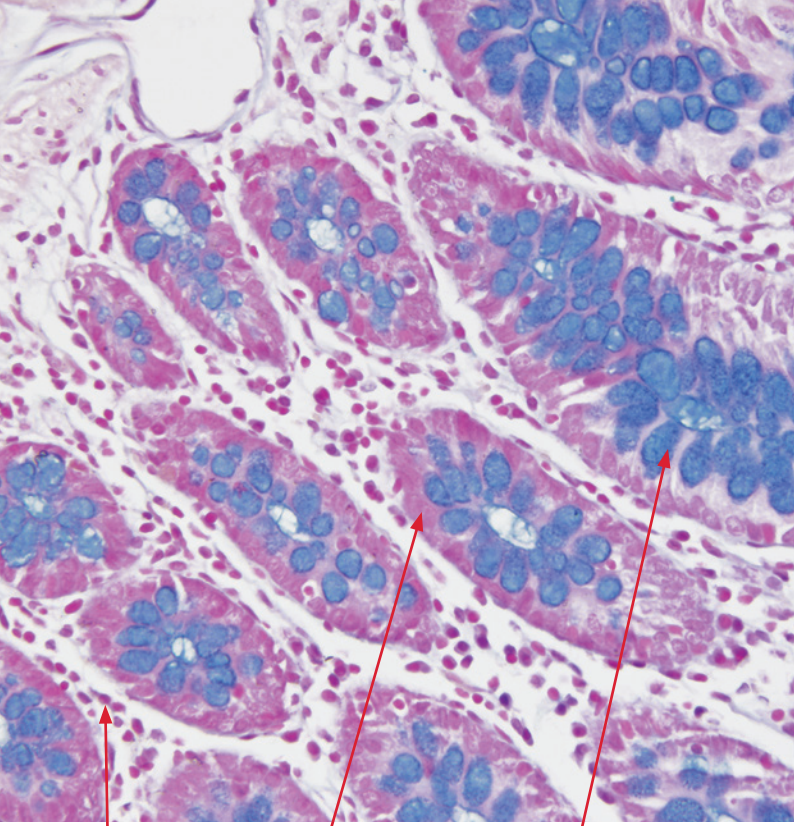

Nuclei:
Red to pink

Cytoplasm:
Pale pink

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

Alcian Blue pH 2.5

Intended for laboratory use to identify, by light microscopy, acidic and neutral mucins in tissue samples.

Product Code:	AR160
Staining Interpretation:	■ Weakly sulfated acidic mucopolysaccharides, sulfomucins, hyaluronic acid, sialomucins: Dark blue ■ Nuclei: Red to pink ■ Cytoplasm: Pale pink
Cut Thickness:	4 µm
Control Tissue:	Small intestine, umbilical cord or colon
Time per Slide*:	0:26:03

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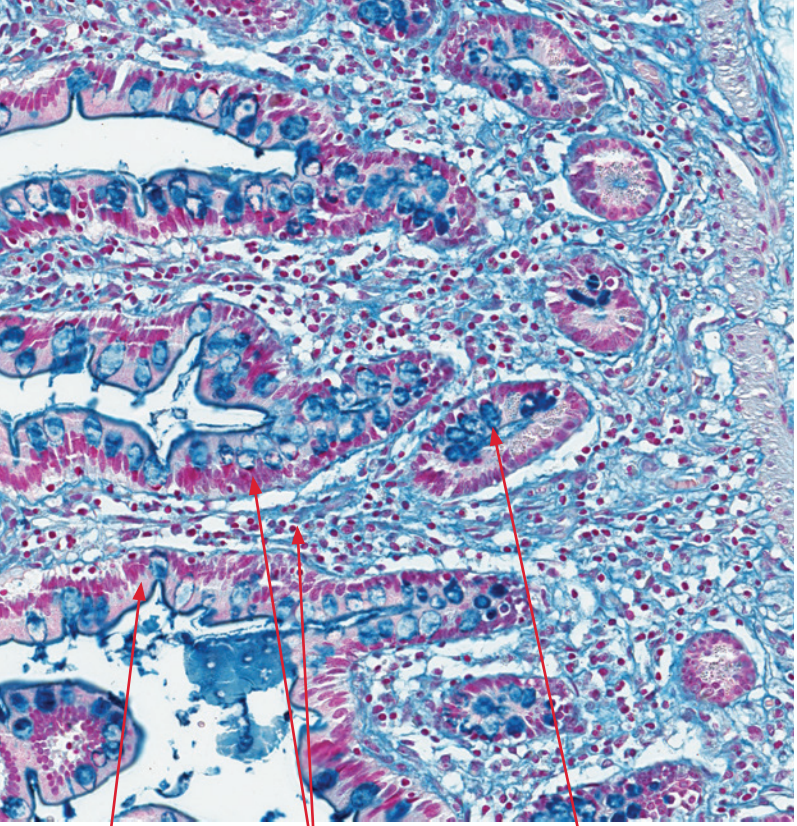

Cytoplasm:
Light Pink

Nuclei:
Light Pink

Carboxylated and Sulfated Mucopolysaccharides and Glycoprotein Mucin:
Dark Blue

Colloidal Iron

Intended for laboratory use to identify, by light microscopy, carboxylated and sulfated mucopolysaccharides and glycoprotein mucin in tissue samples.

Product Code:	AR307
Staining Interpretation:	■ Carboxylated and sulfated mucopolysaccharides and glycoprotein mucin: Dark blue ■ Nuclei: Light pink ■ Cytomplasm: Light pink
Cut Thickness:	4 µm
Control Tissue:	Small intestine
Time per Slide*:	0:40:16

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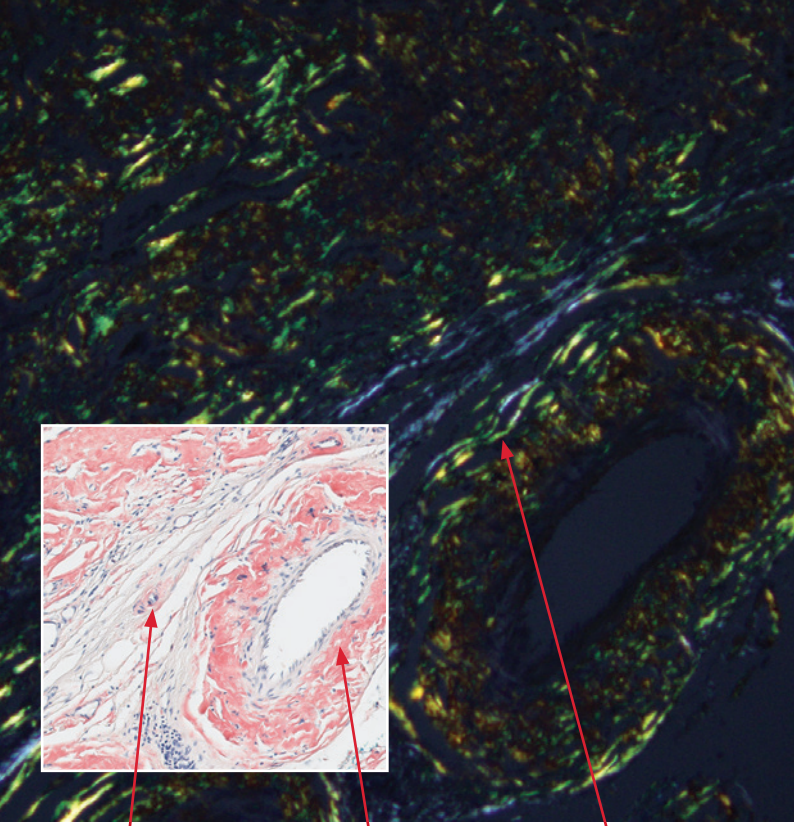

Nuclei:
Blue

Amyloid, collagen, other fibrous materials:
Pale Pink/ Salmon

Amyloid:
Apple Green

Congo Red

Intended for laboratory use to identify, by **polarized** light microscopy, amyloid in tissue samples.

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

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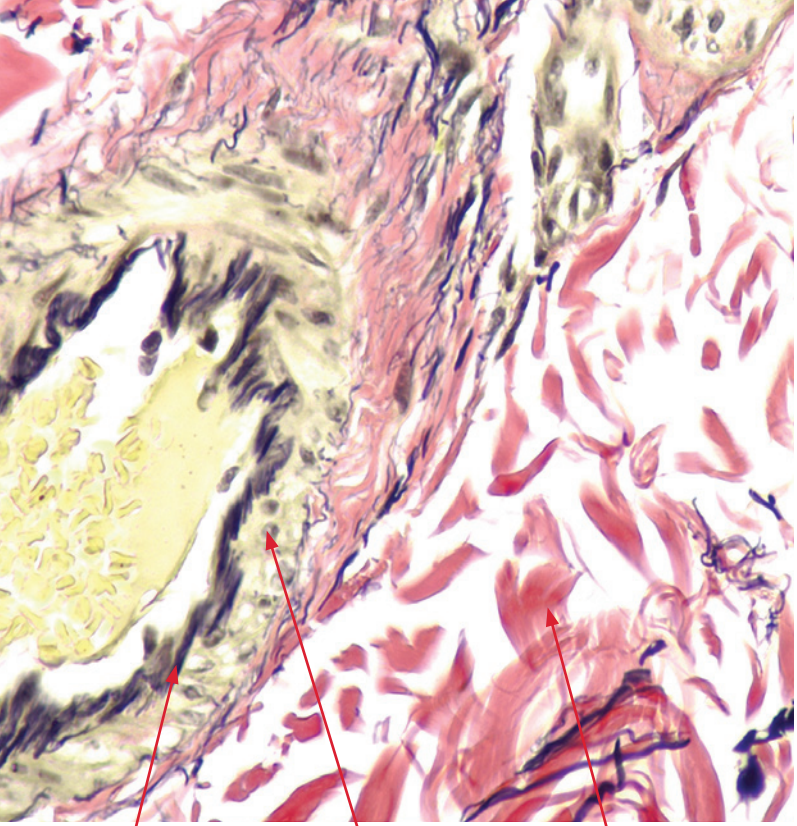

Elastic Fibers:
Black

Nuclei:
Blue to black

Collagen:
Red

Elastic

Intended for laboratory use to indentify, by light microscopy, elastic fibers in tissue samples.

Product Code:	AR163
Staining Interpretation:	■ Elastin fibers: Black ■ Nuclei: Blue to black ■ Collagen: Red ■ Other tissue elements: Yellow
Cut Thickness:	4 µm
Control Tissue:	Cross section of artery, appendix and skin
Time per Slide*:	0:19:20

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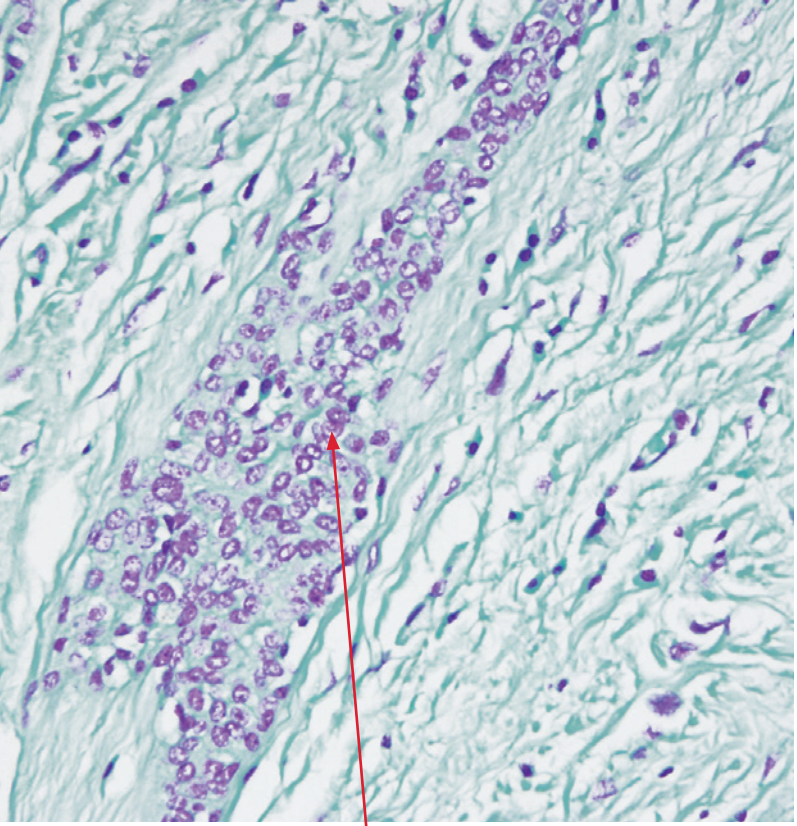

DNA:
Magenta

Feulgen

Intended for laboratory use to identify, by light microscopy and image analysis, deoxyribonucleic acid (DNA).

Product Code:	AR174
Staining Interpretation:	■ DNA: Magenta ■ Background: Light green
Cut Thickness:	4 µm
Control Tissue:	Aneuploidy breast tumor
Time per Slide*:	01:07:01

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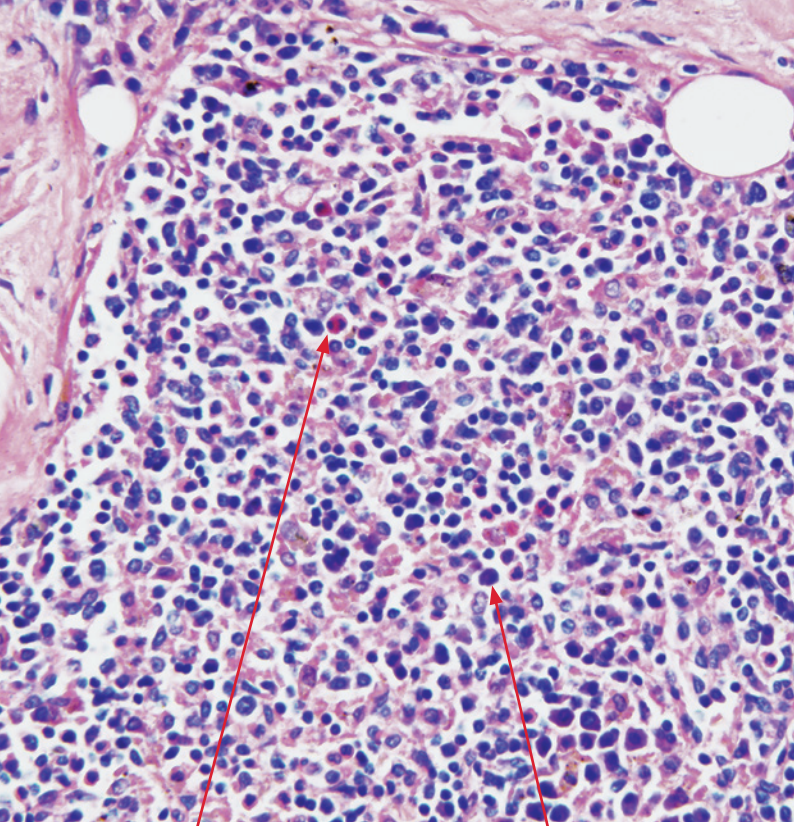

Eosinophils:
Bright pink

Lymphocytes:
Blue

Giemsa

Intended for laboratory use to differentiate, by light microscopy, hematopoietic cells (i.e. mast cells, basophiles, polymorpho-nuclear leukocytes etc), in tissue samples.

Product Code:	AR164
Staining Interpretation:	■ Mast cell granules: Purple ■ Basophils: Purple ■ Eosinophils: Bright pink ■ Lymphocytes: Blue
Cut Thickness:	4 µm
Control Tissue:	Tissue containing mast cells
Time per Slide*:	01:01:48

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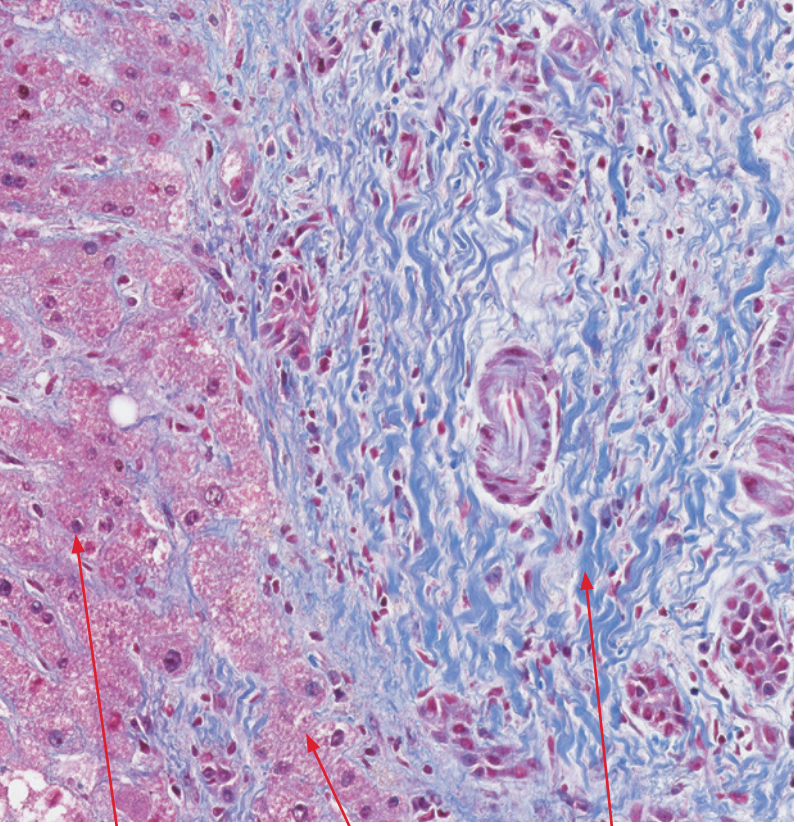

Nuclei:
Blue or Black

Cytoplasm:
Red

Collagen:
Blue

Gomori's Blue Trichrome

Intended for laboratory use to identify, by light microscopy, connective tissue in tissue samples.

Product Code:	AR167
Staining Interpretation:	■ Cytoplasm: Red ■ Fibrin: Pink ■ Collagen: Blue ■ Nuclei: Blue or black ■ Erythrocytes: Red
Cut Thickness:	4 µm
Control Tissue:	Uterus, kidney and liver
Time per Slide*:	0:45:02

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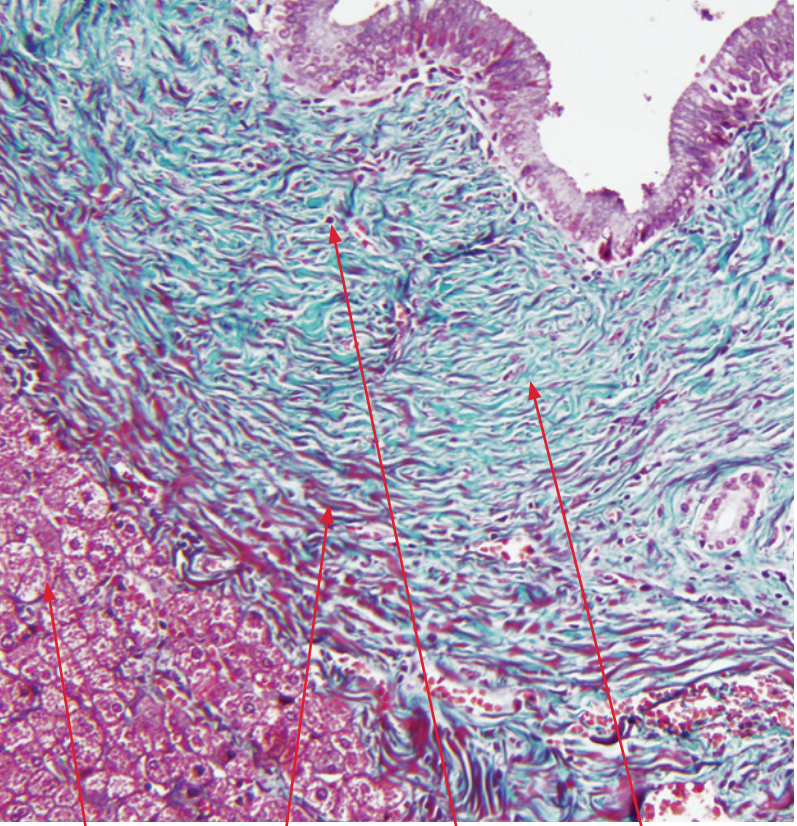

Gomori's Green Trichrome

Intended for laboratory use to identify, by light microscopy, connective tissue in tissue samples.

Product Code:	AR166
Staining Interpretation:	■ Cytoplasm: Red ■ Fibrin: Pink ■ Collagen: Green ■ Nuclei: Blue or black ■ Erythrocytes: Red
Cut Thickness:	4 µm
Control Tissue:	Uterus, small intestine, liver, appendix and fallopian tube.
Time per Slide*:	0:29:13

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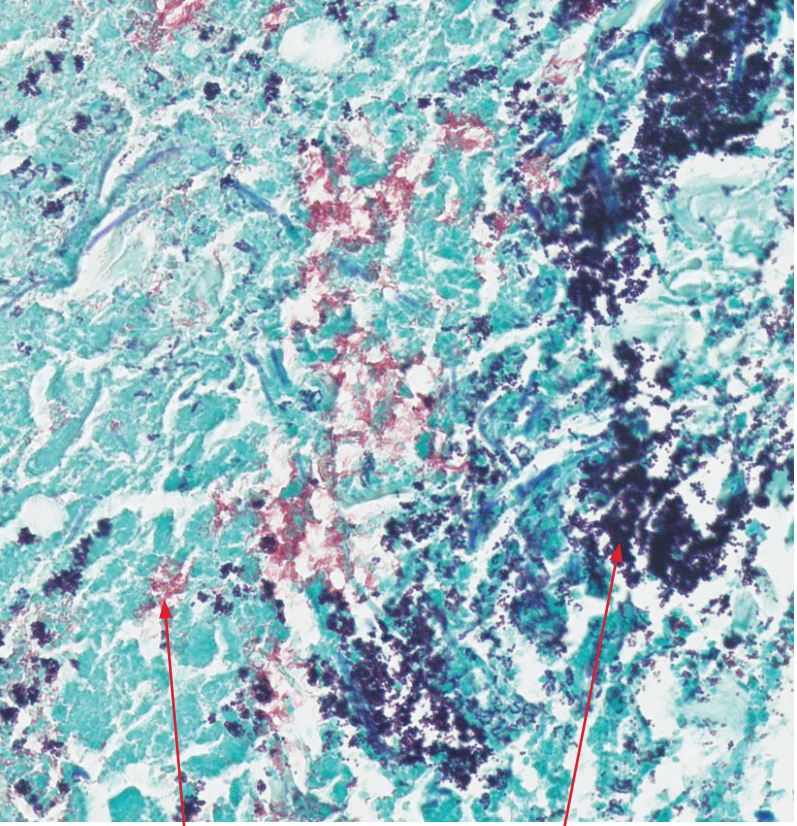

Gram-negative Bacteria:
Red

Gram-positive Bacteria:
Blue

Gram

Intended for laboratory use to identify, by light microscopy, Gram-positive and Gram-negative microorganisms in tissue samples.

Product Code:	AR175
Staining Interpretation:	■ Gram-positive organisms: Blue ■ Gram-negative organisms: Red ■ Background: Varying shades of blue/green
Cut Thickness:	4 µm
Control Tissue:	Tissue containing both Gram positive and Gram negative bacteria.
Time per Slide*:	0:24:00

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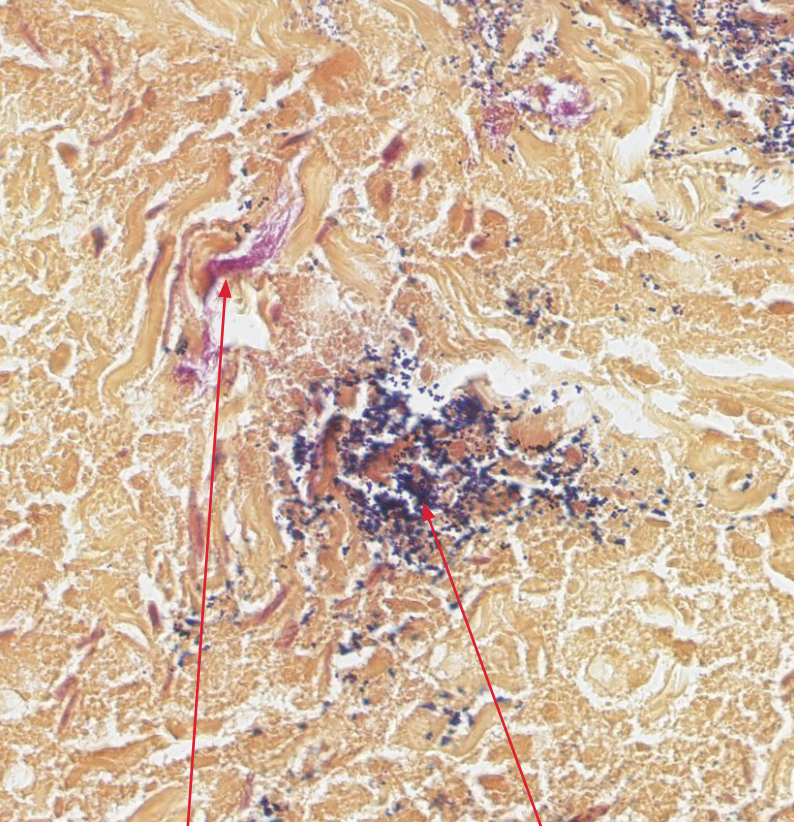

Gram-negative Organism:
Light pink to magenta

Gram-positive Organism:
Dark blue

Gram Yellow

Intended for laboratory use to identify, by light microscopy, Gram-positive and Gram-negative microorganisms in tissue samples.

Product Code:	AR306
Staining Interpretation:	■ Gram-positive organisms: Dark Blue ■ Gram-negative organisms: Light Pink to Magenta ■ Background: Yellow
Cut Thickness:	4 µm
Control Tissue:	Tissue containing both Gram-positive and Gram-negative bacteria.
Time per Slide*:	0:21:20

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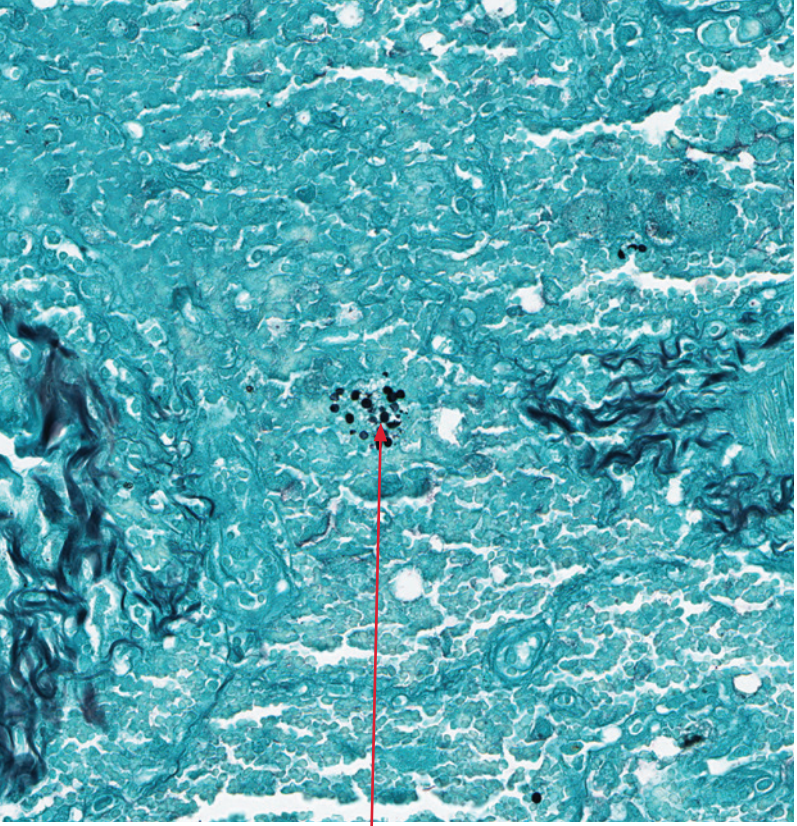

Pneumocystis Jirovecii:
Black

Grocott's Methenamine Silver (GMS)

Intended for laboratory use to identify, by light microscopy, fungal organisms and *Pneumocystis jirovecii* (formerly known as carinii) in tissue samples

Product Code:	AR176
Staining Interpretation:	■ Fungi: Black ■ Pneumocystis: Black ■ Background: Light green
Cut Thickness:	4 µm
Control Tissue:	Tissue with Aspergillus, Candida or *Pneumocystis*
Time per Slide*:	0:50:19

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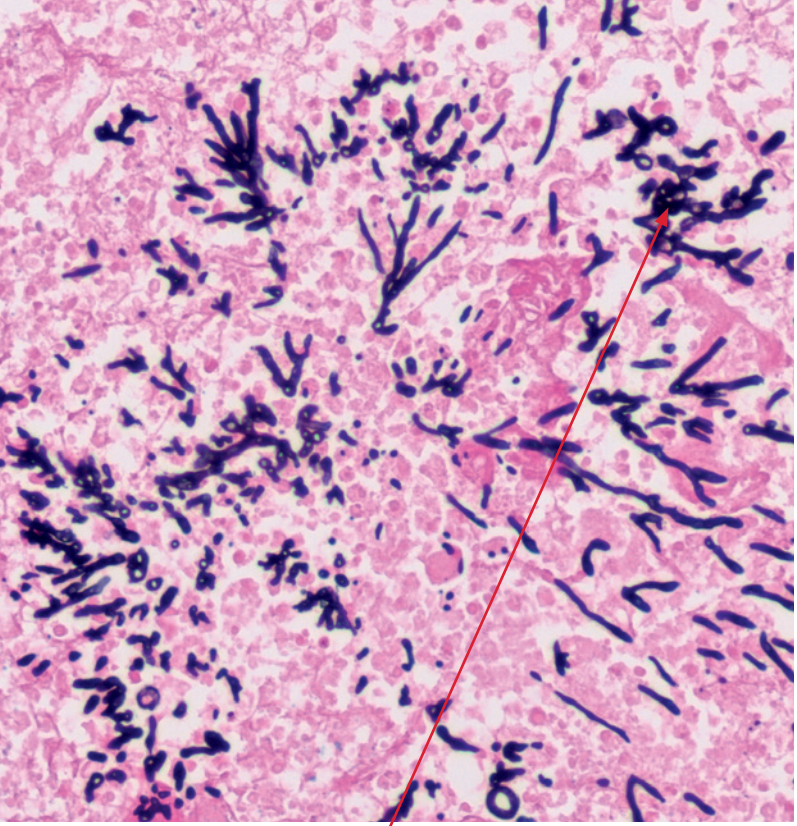

Fungi:
Black

Grocott's Methenamine Silver (GMS) Eosin

Intended for laboratory use to identify, by light microscopy, fungal organisms and *Pneumocystis jirovecii* (formerly known as carinii) in tissue samples.

Product Code:	AR376
Staining Interpretation:	■ Fungi: Black ■ *Pneumocystis*: Black ■ Background: Pink
Cut Thickness:	4 µm
Control Tissue:	Tissue with Aspergillus, Candida or *Pneumocystis*
Time per Slide*:	0:56:17

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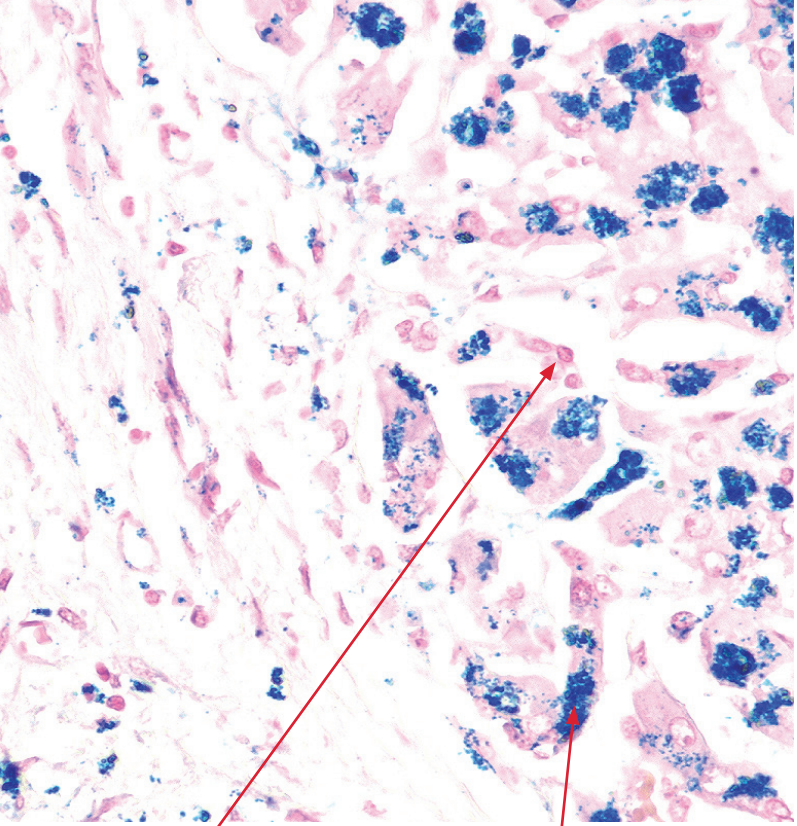

Nuclei:
Red

Ferric Iron:
Blue

Iron

Intended for laboratory use to identify, by light microscopy, ferric iron deposits in tissue samples.

Product Code:	AR158
Staining Interpretation:	■ Ferric iron: Blue ■ Nuclei: Red ■ Background: Pink
Cut Thickness:	4 µm
Control Tissue:	Spleen or liver with hemosiderosis
Time per Slide*:	0:09:58

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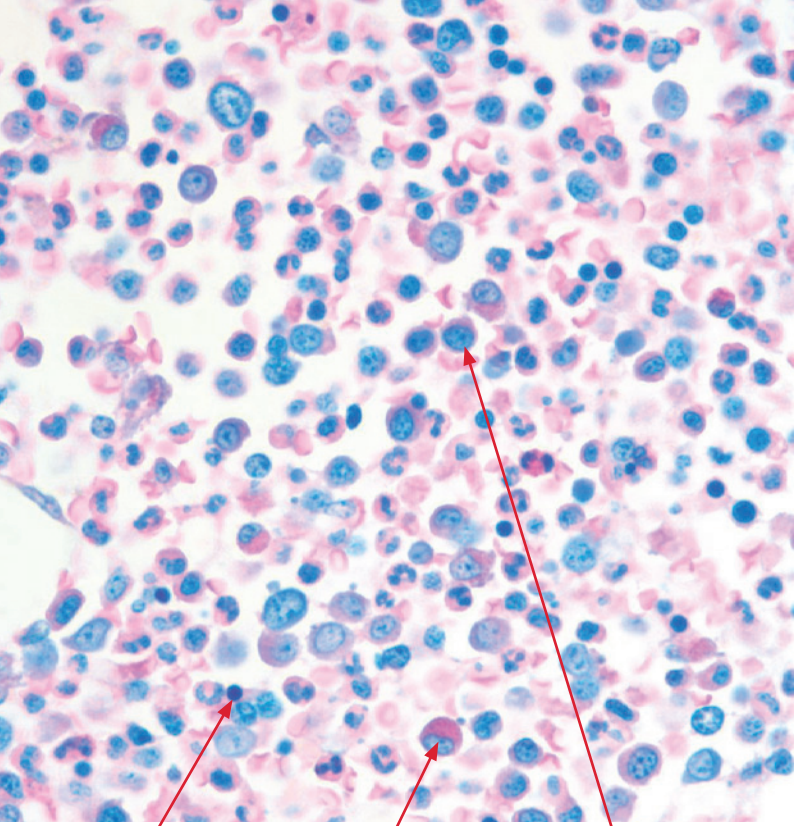

Nuclei:
Blue

Eosinophils:
Bright pink

Leukocytes:
Shades of pink, gray or blue depending on cell type and development

Jenner-Wright Giemsa

Intended for laboratory use to differentiate, by light microscopy, hematopoietic cells in bone marrow tissue samples.

Product Code:	AR308
Staining Interpretation:	■ Nuclei: Blue ■ Eosinophils: Bright Pink ■ Leukocytes: Shades of pink, gray, or blue depending on cell type and development
Cut Thickness:	2-3 µm
Control Tissue:	Bone Marrow or spleen
Time per Slide*:	0:16:42

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Basement Membrane:
Black

Nuclei:
Red

Jones' Basement Membrane (PAS-M)

Intended for laboratory use to identify, by light microscopy, basement membranes in tissue samples.

Product Code:	AR180
Staining Interpretation:	■ Basement membrane: Black ■ Nuclei: Red ■ Background: Pink
Cut Thickness:	2 µm
Control Tissue:	Kidney with glomeri
Time per Slide*:	0:52:53

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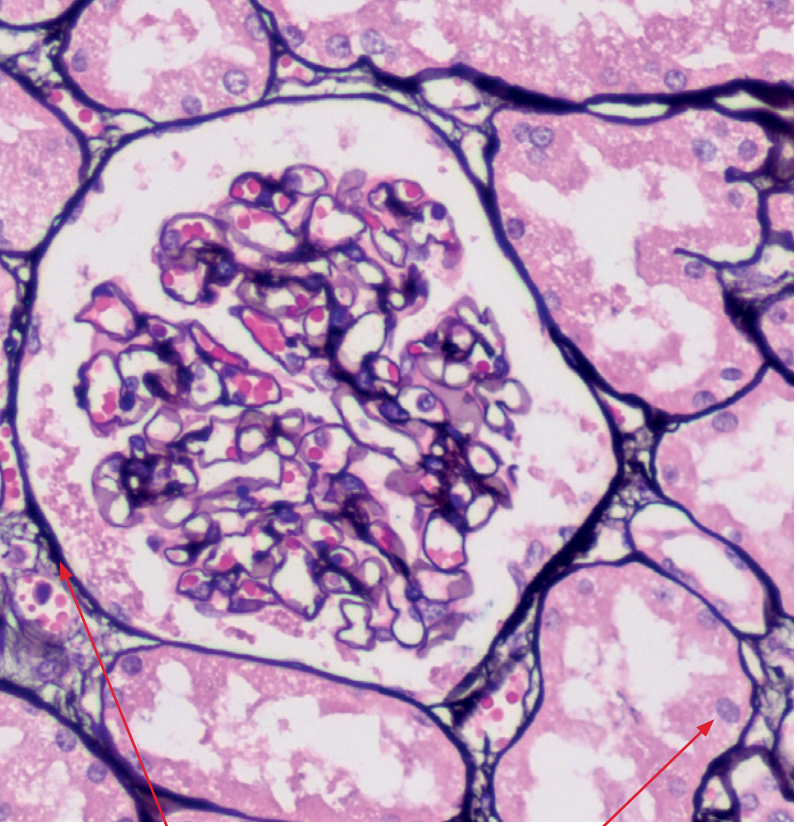

Basement Membrane:
Black

Nuclei:
Blue

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

Intended for laboratory use to identify, by light microscopy, basement membranes in tissue samples.

Product Code:	AR480
Staining Interpretation:	■ Basement membrane: Black ■ Nuclei: Blue ■ Background: Pink
Cut Thickness:	2 µm
Control Tissue:	Kidney with glomeri
Time per Slide*:	0:45:21

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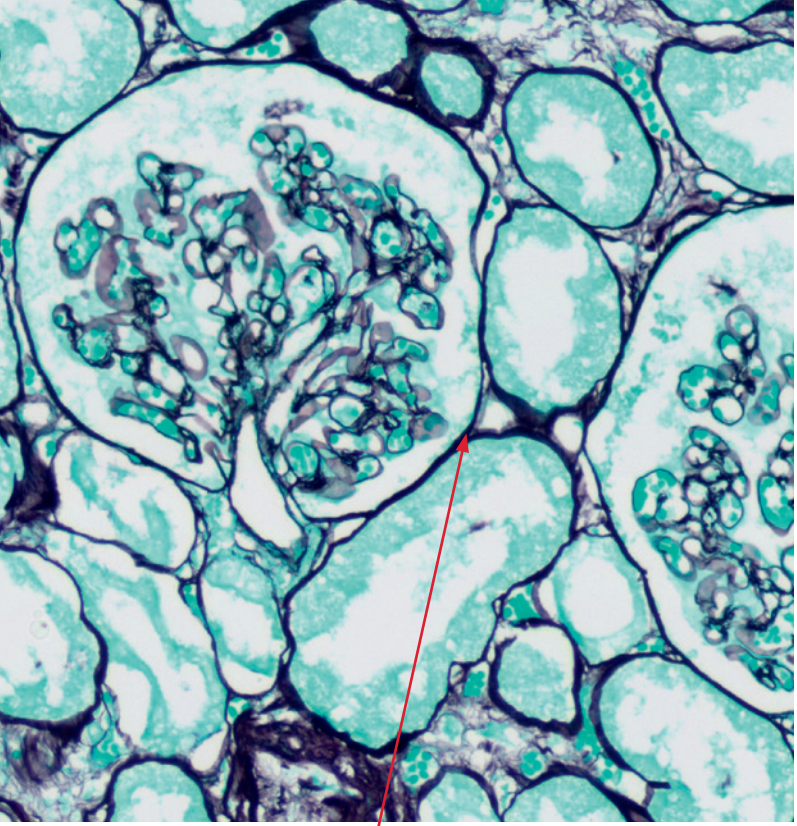

Basement Membrane:
Black

Jones' Basement Membrane (PAS-M) Light Green

Intended for laboratory use to identify, by light microscopy, basement membranes in tissue samples cut at 2 microns.

Product Code:	AR380
Staining Interpretation:	■ Basement membrane: Black ■ Background: Light green
Cut Thickness:	2 µm
Control Tissue:	Kidney with glomeri
Time per Slide*:	0:42:55

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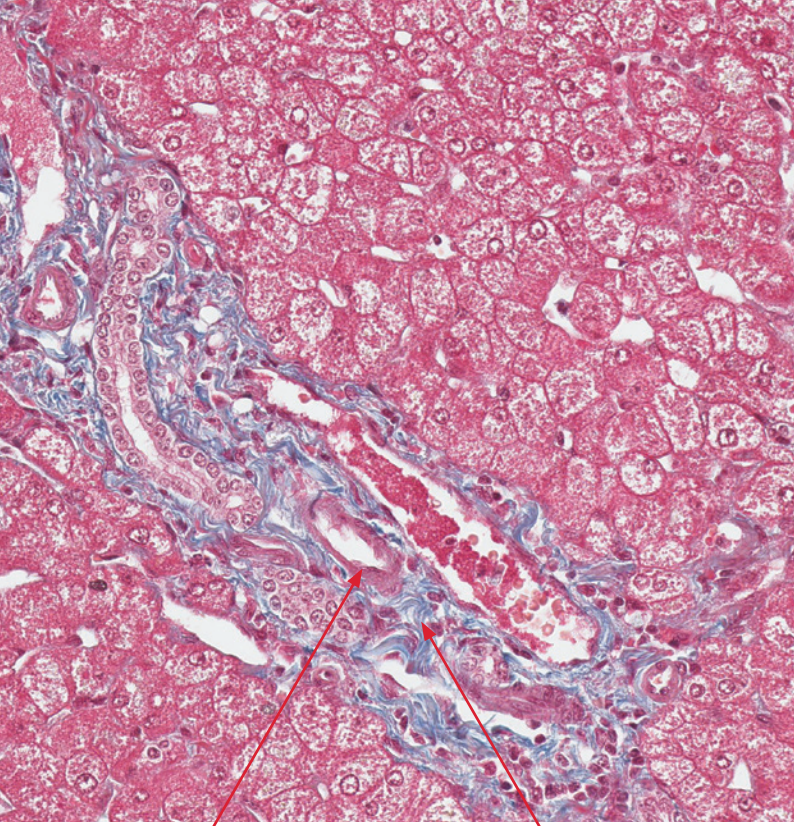

Muscle:
Red

Collagen:
Blue

Masson's Trichrome

Intended for laboratory use to identify, by light microscopy, connective tissue and muscle in tissue samples.

Product Code:	AR173
Staining Interpretation:	■ Muscle fibers: Red ■ Fibrin: Pink ■ Collagen: Blue ■ Nuclei: Blue or black ■ Erythrocytes: Red
Cut Thickness:	4 µm
Control Tissue:	Uterus, small intestine, liver, appendix or fallopian tube
Time per Slide*:	0:57:15

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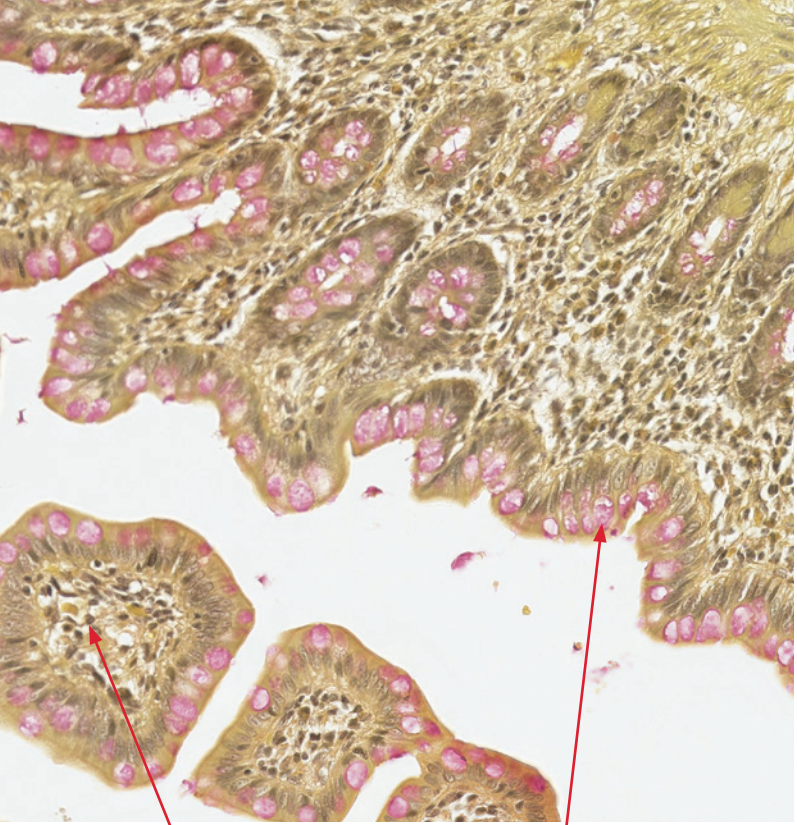

Nuclei:
Black

Mucin:
Pink

Mucicarmine

Intended for laboratory use to identify, by light microscopy, epithelial mucins in tissue samples.

Product Code:	AR168
Staining Interpretation:	■ Mucin: Pink ■ Nuclei: Black ■ Background: Yellow
Cut Thickness:	4 µm
Control Tissue:	Small intestine, colon or appendix
Time per Slide*:	0:50:54

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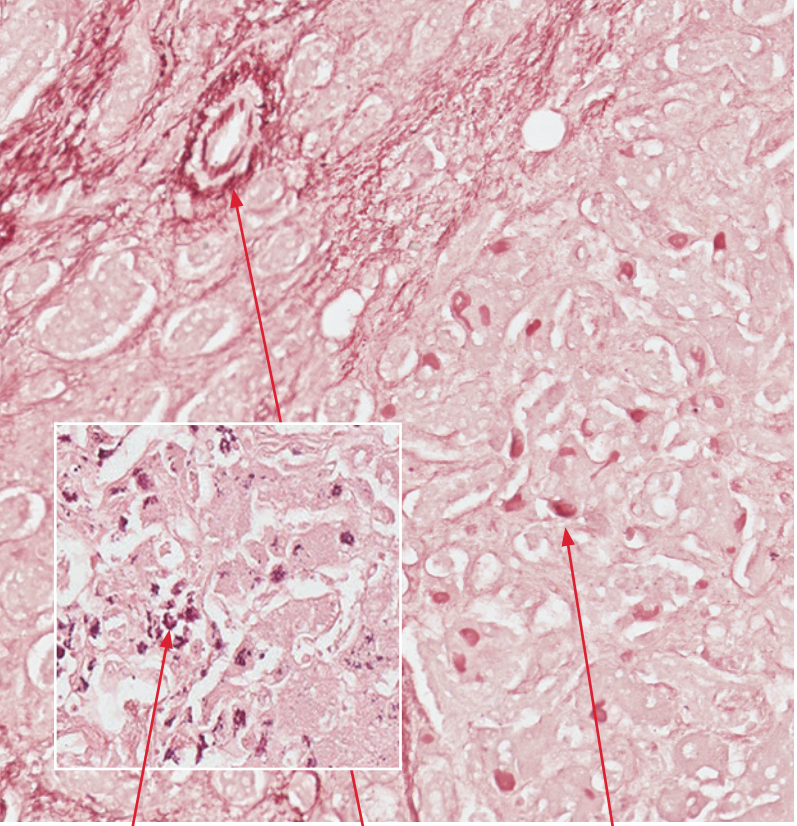

Copper:
Dark red-purple

Elastin Fibers:
Dark reddish brown

HBsAG:
Dark reddish brown

Orcein

Intended for laboratory use to identify, by light microscopy, the viral inclusion bodies of Hepatitis B surface antigen(HBsAG) and Copper associated proteins in tissue samples.

Product Code:	AR313
Staining Interpretation:	■ HBsAG/Elastin fibers: Dark reddish brown ■ Copper associated protein: Dark red-purple ■ Background: Pale pink – pink
Cut Thickness:	4 µm
Control Tissue:	Liver tissue containing positive HBsAG. Fetal liver can be used for Copper or liver with Wilson's disease. A multi-block containing positive liver for HBsAG and Copper with normal liver is recommended.
Time per Slide*:	0:15:44

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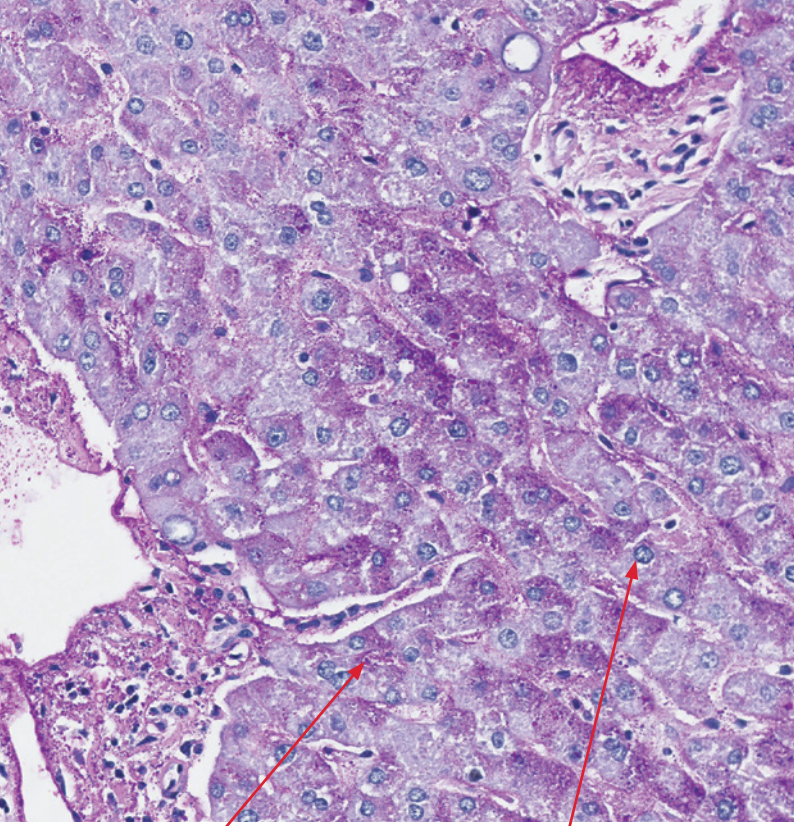

PAS-positive structures:
Magenta

Nuclei:
Blue

Periodic Acid-Schiff (PAS)

Intended for laboratory use to identify, by light microscopy, glycogen and mucopolysaccharide components in tissue samples.

Product Code:	AR165
Staining Interpretation:	■ PAS-positive structures: Magenta ■ Nuclei: Blue ■ Background: Pink
Cut Thickness:	4 µm
Control Tissue:	■ Kidney for basement membrane ■ Liver with glycogen
Time per Slide*:	0:59:59

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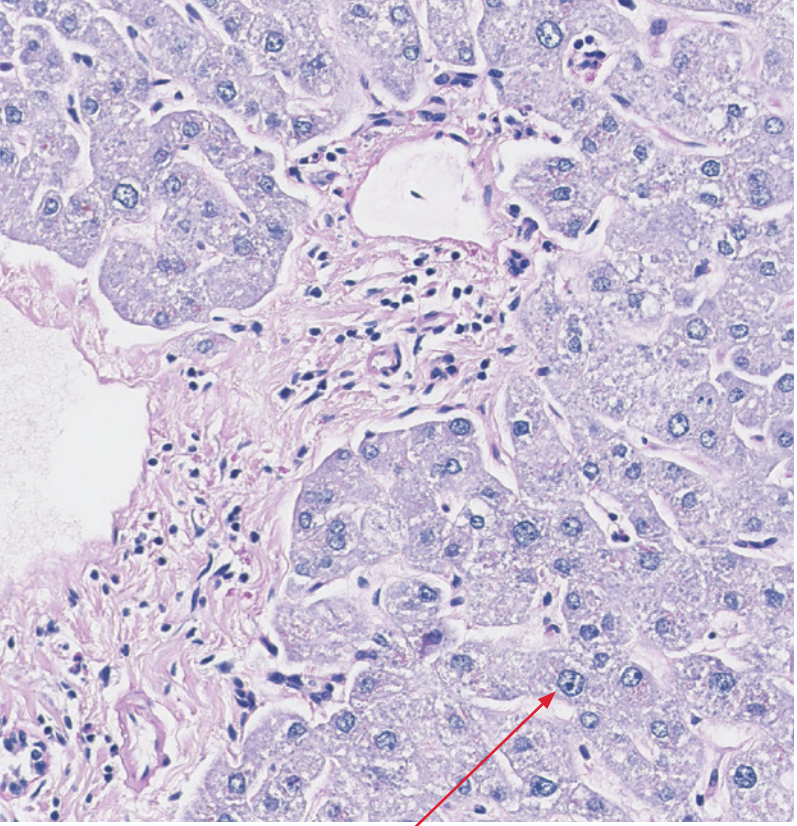

Nuclei:
Blue

Periodic Acid-Schiff (PAS) with Alpha-Amylase

Intended for laboratory use to identify, by light microscopy, glycogen and mucopolysaccharide components in tissue samples. Alpha-Amylase digestion removes any glycogen in the tissue.

Product Code:	AR165 (with AR171)
Staining Interpretation:	■ Nuclei: Blue ■ Background: Pink
Cut Thickness:	4 µm
Control Tissue:	Liver containing glycogen
Time per Slide*:	01:14:02

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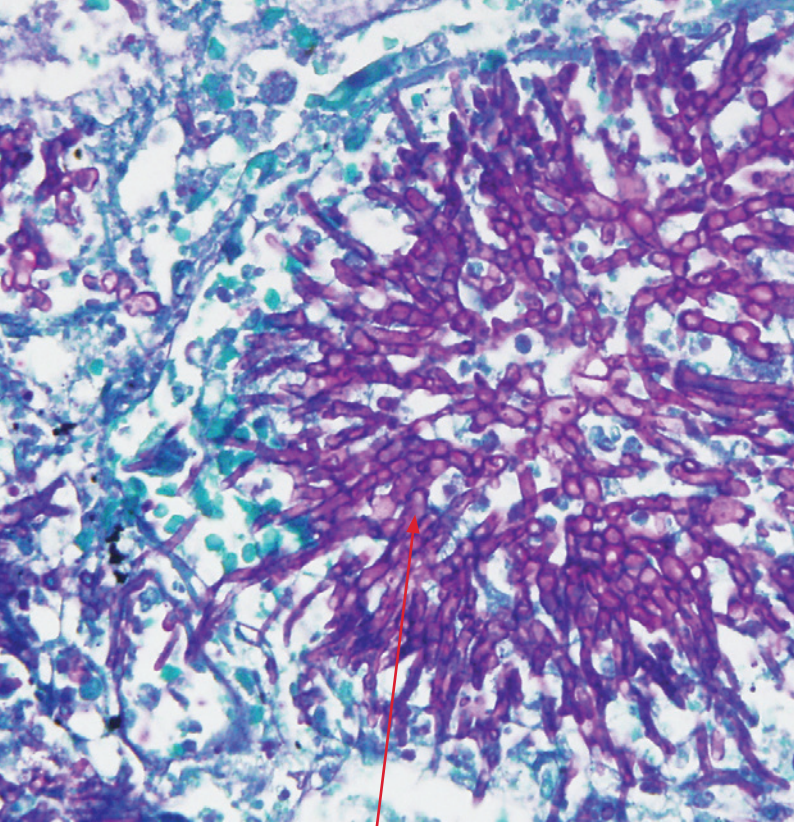

Fungi:
Magenta

Periodic Acid-Schiff (PAS) Green

Intended for laboratory use to identify, by light microscopy, fungi in tissue samples.

Product Code:	AR172
Staining Interpretation:	■ Fungi: Magenta ■ Background: Blue - green
Cut Thickness:	4 µm
Control Tissue:	Skin tissue with *Candida albicans*
Time per Slide*:	0:24:12

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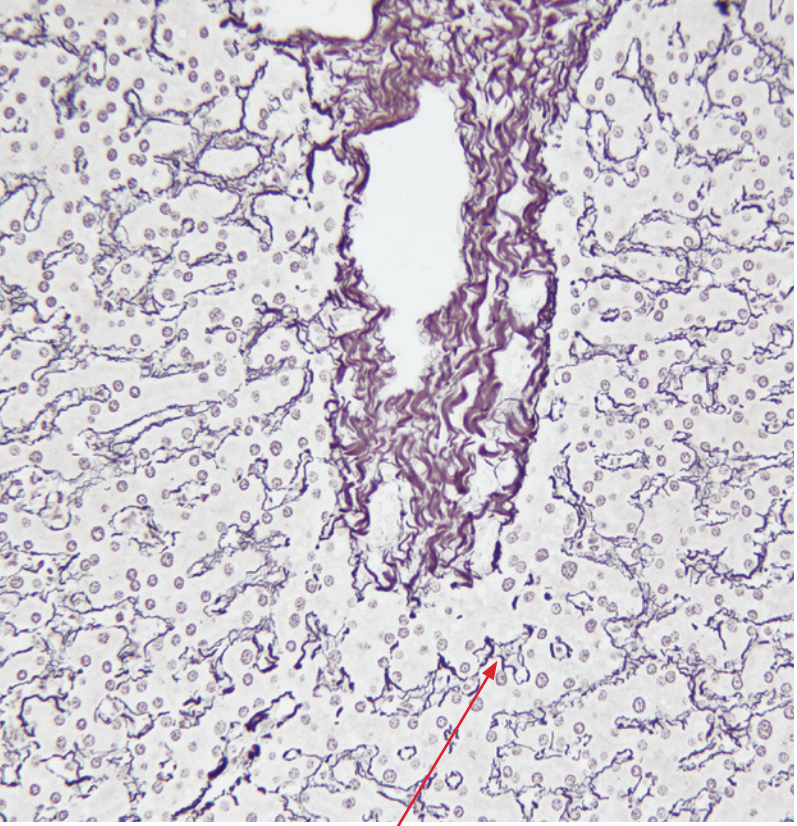

Reticulin Fibers:
Black

Reticulin/No Counterstain

Intended for laboratory use to identify, by light microscopy, reticulin fibers in tissue samples.

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

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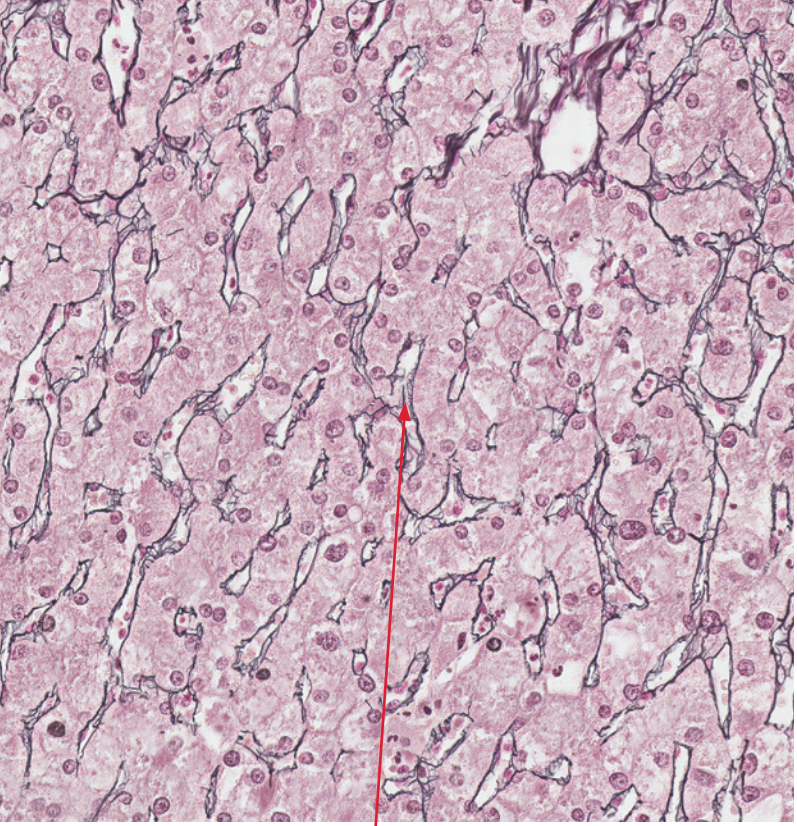

Reticulin Fibers:
Black

Reticulin/Nuclear Fast Red

Intended for laboratory use to identify, by light microscopy, reticulin fibers in tissue samples.

Product Code:	AR179
Staining Interpretation:	■ Reticulin fibers: Black ■ Background: Red
Cut Thickness:	4 µm
Control Tissue:	Liver, spleen or lymph node
Time per Slide*:	01:02:59

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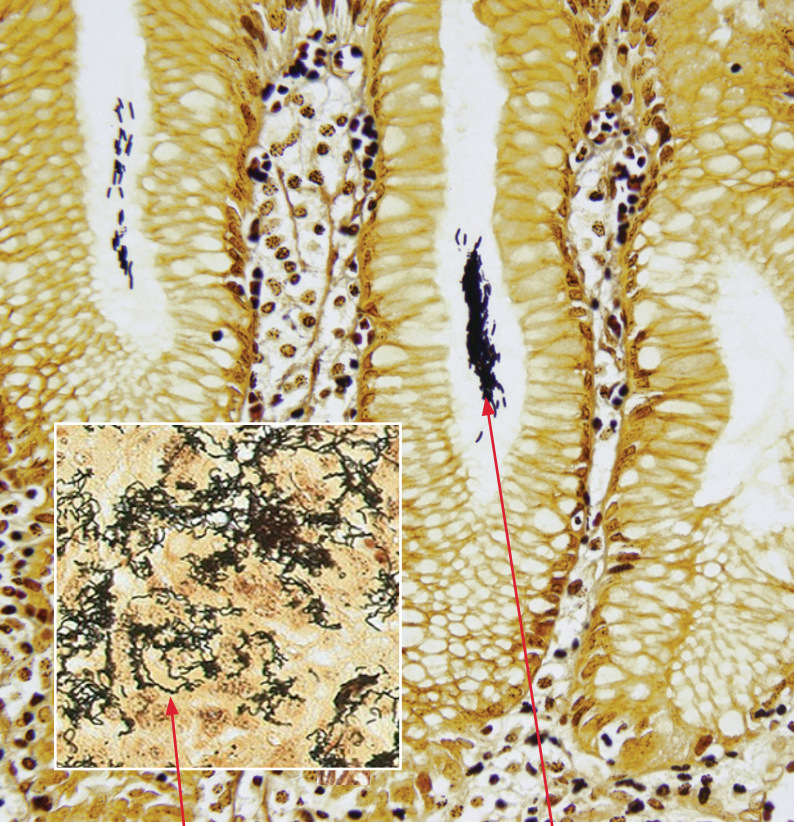

Spirochetes:
Black

Helicobacter Pylori:
Black

Warthin-Starry

Intended for laboratory use to identify, by light microscopy, *Helicobacter pylori* and spirochete microorganisms in tissue samples.

Product Code:	AR181
Staining Interpretation:	■ *Helicobactor pylori*: Black ■ Spirochetes: Black ■ Background: Golden yellow
Cut Thickness:	4 µm
Control Tissue:	Tissue with helicobacter and spirochetes
Time per Slide*:	00:07:38

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- Full automation with onboard drying and clearing, and individual slide heating

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