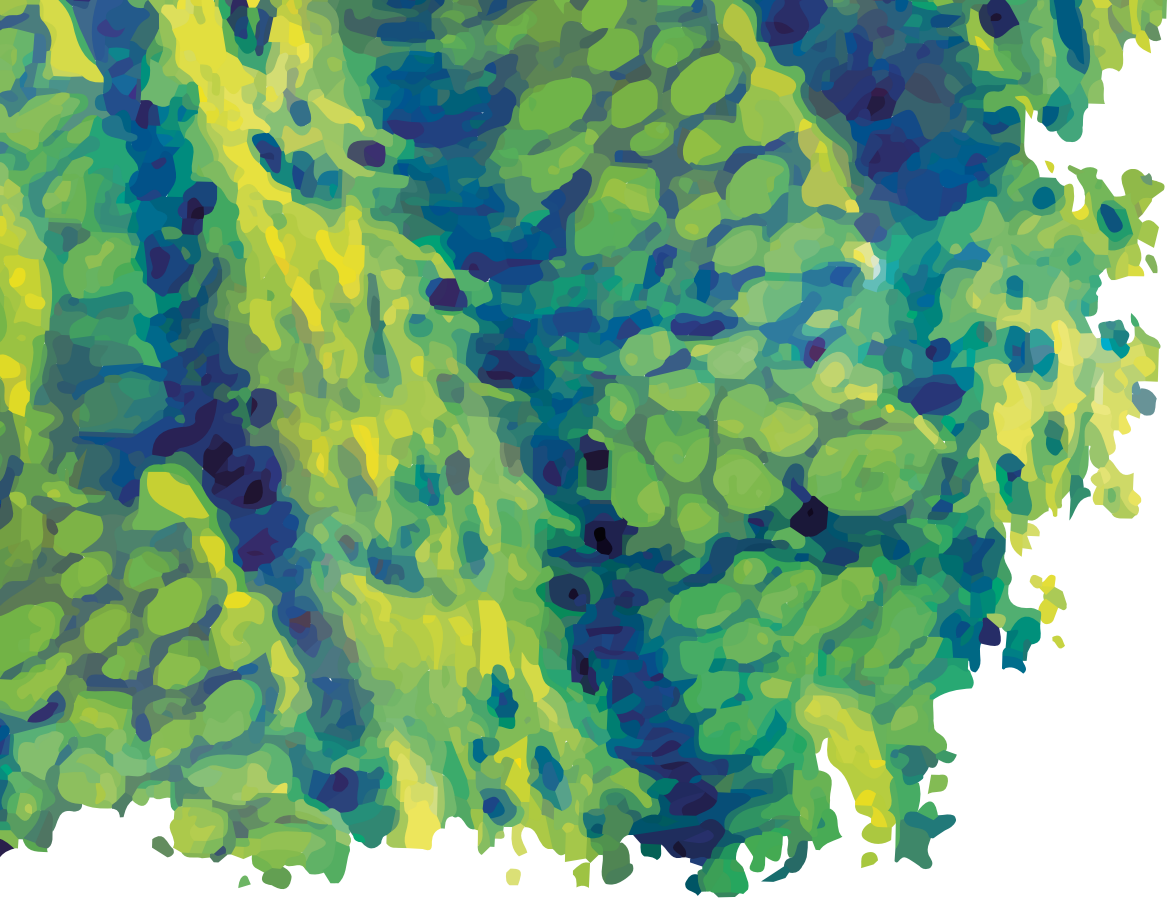

# Bio-Optica

Improving Pathology

GENERAL CATALOGUE

Bio-Optica

Improving Pathology

**A by-word for histology for over 40 years**

**Innovation, experience and the quest for perfection are the key to our success.**

In business since 1977, we are an established company that offers the highest standards across the board and a unique and comprehensive product portfolio.
As an Italian company, we believe and invest in our country's prowess, on the basis of the obsessive commitment to quality that forms an integral part of Italian manufacturing and guarantees the best possible care for everyone's most valuable asset: their health!
We work behind the scenes to enable doctors and technicians to work faster, more effectively and with zero scope for error, so that their patients benefit from quick, precise, error-free diagnoses.
How do we do it?
By setting ourselves increasingly ambitious goals in R&D, constantly increasing the speed of our production and delivery processes, and extending our product range in line with the needs of the market, the latest medical discoveries and the most up-to-date guidelines.

Our aim is to be a company that helps everyone achieve a long, healthy and rewarding life!


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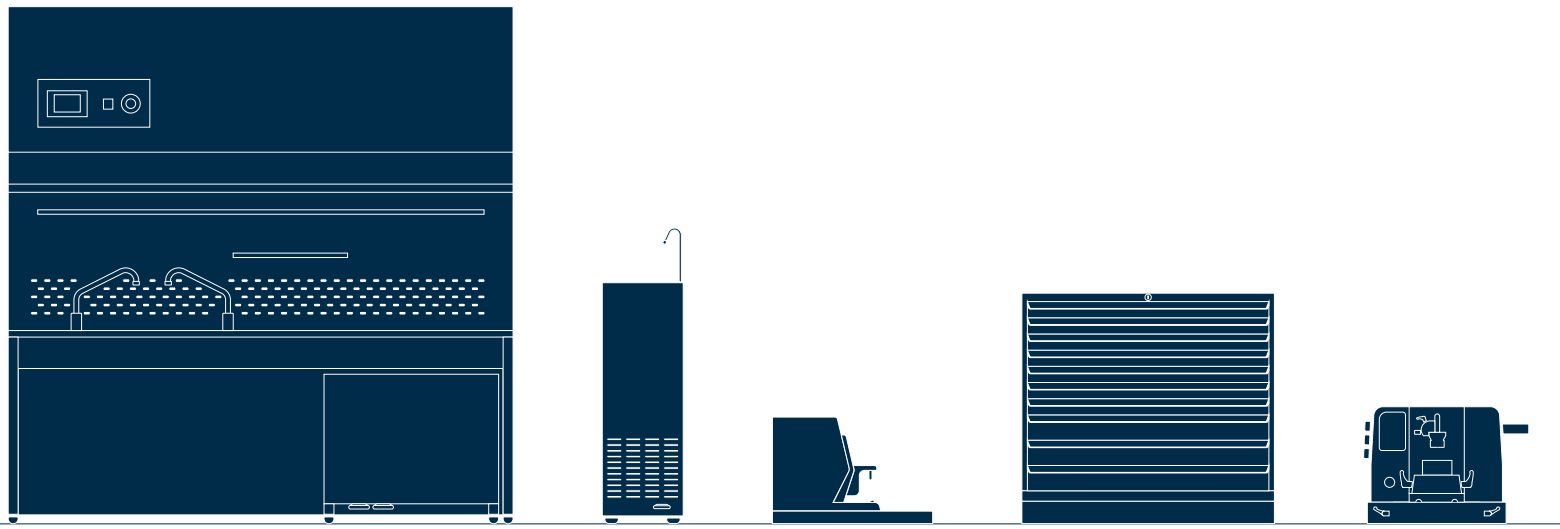
**Reagents production**

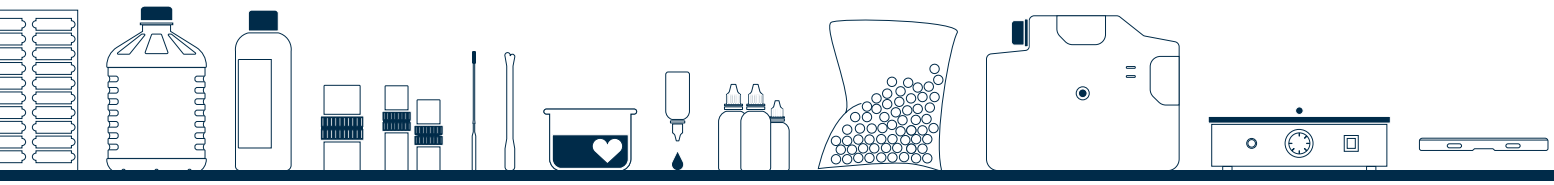



**Instruments production and service**

Sales and warehouse department

# Bio-Optica





# Contents


| | |
|---|---|
| Safe storage and transport of samples | p. 10 |
| Grossing | p. 18 |
| Processing | p. 34 |
| Embedding | p. 40 |
| Microtomy | p. 46 |
| Staining and mounting | p. 54 |
| Cytology | p. 140 |
| Storage | p. 146 |



p. 12

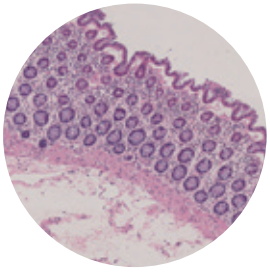

p. 12


p. 17

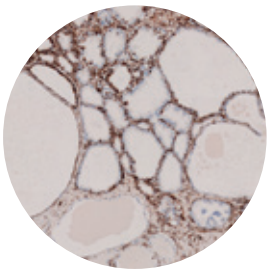

p. 14

## Safe storage and transport of samples

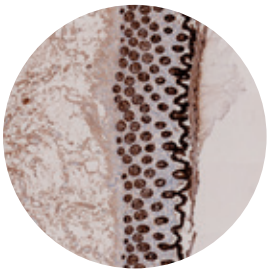
Bio-Optica



Sigmoid colon (H&E)



Prostate (IHC, vimentin)



Sigmoid colon (IHC, CK8-18)

## HistoCold

### Cold storage system

HistoCold is a storage system for the safe transport of histological samples, in accordance with Commission Regulation (EU) No. 605/2014.

HistoCold solution is non-toxic and ready to use. The sample is immersed and preserved until it reaches the pathology lab, where it can be fixed in formalin and processed according to standard protocols.

HistoCold solution combines the action of its patented formulation with the action of cold, so as to inhibit microbial activity and preserve pH and physiological osmolarity in order to avoid shock to the tissues and slow the action of proteolytic enzymes.

HistoCold solution is cooled at the time of use by means of a dedicated dispenser equipped with a pedal for easier delivery of the solution.

### Benefits of HistoCold solution:

- Tissue-compatible: physiological pH and osmotic pressure
- Non-toxic
- Ready to use
- Stable
- Storage at room temperature
- Preserves tissue for up to 72 hours at 4 °C
- No compression of the histological sample

| PRODUCT | PACK | CODE |
|---|---|---|
| HistoCold – solution | 10 l | 05-100100 |
| Dispenser | 1 pc. | 05-100200 |
| Refrigerator for transport | 1 pc. | 05-100300 |
| Trolley for transport | 1 pc. | 05-100400 |
| Uninterruptible power supply for refrigerator | 1 pc. | 65-SL2000 |
| Temperature data logger | 1 pc. | 05-100500 |
| Multi-purpose container, 125 ml | 250 pcs. | 05-100401 |
| Multi-purpose container, 250 ml | 200 pcs. | 05-100402 |
| Multi-purpose container, 500 ml | 100 pcs. | 05-100403 |
| Multi-purpose container, 1000 ml | 100 pcs. | 05-100404 |
| Multi-purpose container, 3000 ml | 50 pcs. | 05-100405 |
| Multi-purpose container, 5000 ml | 20 pcs. | 05-100406 |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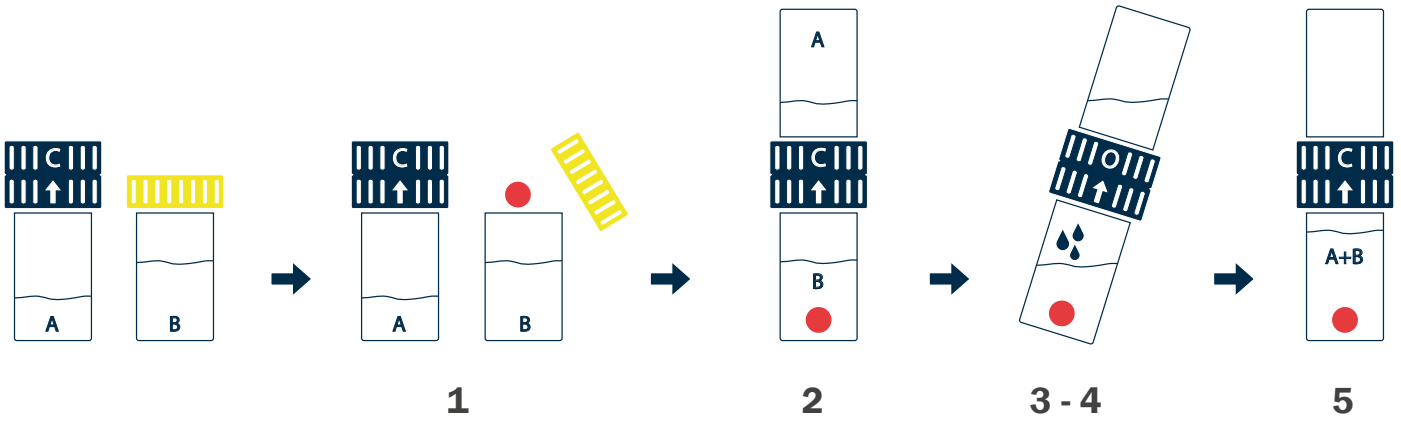
## Klessidra 2.0

Klessidra has evolved into Klessidra 2.0: supplied in pre-filled containers, the buffer solution helps operators remove biopsies from needles.
The container with two blue caps contains concentrated formalin. The buffered neutral 10% formalin reconstitutes after blending with the buffer solution.

| | PRODUCT | PACK | CODE |
|---|---|---|---|
| ● | **Klessidra 2.0**<br>10 ml of 12% formaldehyde and 20 ml of buffer phosphate | 27 pcs. | 05-01V15PK |
| ● | **Rack**<br>Test tube rack for 16 Klessidras, to facilitate transport within the hospital | 1 pc. | 05-900900 |

## Instruction for use

- 1) Open the container with the yellow cap containing the buffer (solution B) and release the biopsy into it
- 2) Screw the container pre-filled with formalin (solution A) onto the container in which you placed the biopsy
- 3) Turn the caps to the open position (by lining up the arrow with the letter O)
- 4) Tilt the device and let the formalin flow into the container below
- 5) Turn the caps to the closed position




Solution A : 30% buffered neutral formalin
Solution B: phosphate buffer
Solution A+B: 10% buffered neutral formalin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## Klessidra

Klessidra is a patented, closed-circuit safety device, which prevents contact between formaldehyde and the user, in accordance with Commission Regulation (EU) No. 605/2014. It is intended for the fixation and transport of small histological samples.


| | PRODUCT | PACK | CODE |
|---|---|---|---|
| ● | **Klessidra 10 ml**<br>10 ml of 10% buffered neutral formalin in a 35 ml container<br>Includes Endokit for the orientation of small biopsies | 27 pcs. | 05-01V15PK |
| ● | **Klessidra 20 ml**<br>20 ml of 10% buffered neutral formalin in a 55 ml container | 27 pcs. | 05-01V30PK |
| ● | **Klessidra 30 ml**<br>30 ml of 10% buffered neutral formalin in a 35 ml container<br>Includes Bio Cassette and biopsy pads | 24 pcs. | 05-01V60PK |

## Klessidra BN

A closed-circuit safety device for preventing contact between fixative and user, pre-filled with 30 ml of Bouin in a 55 ml container.

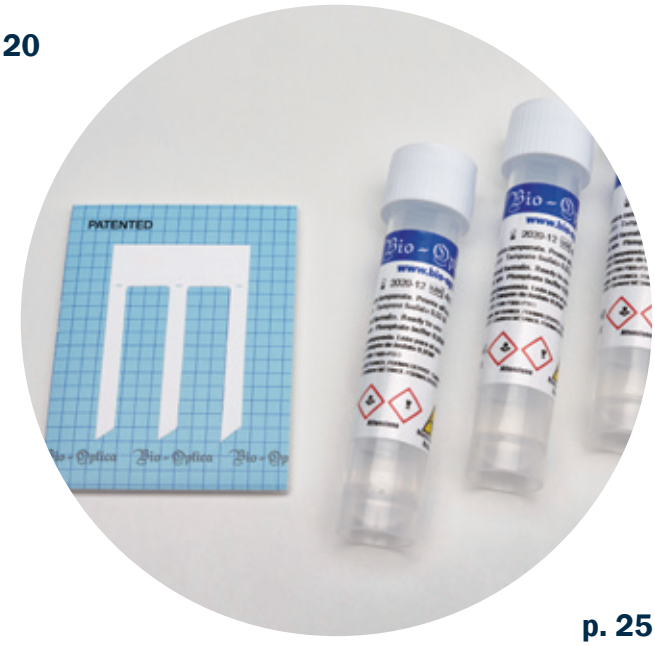
| | PRODUCT | PACK | CODE |
|---|---|---|---|
| ● | **Klessidra BN** | 24 pcs. | 05-01V60PKB |

## Klessidra 3.0

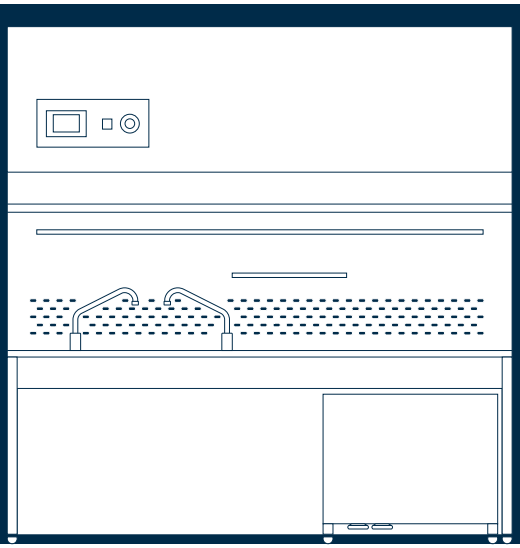

Klessidra 3.0 is the largest size in the Klessidra range.
The 90 ml size can hold up to 12 Bio Cassettes.
The maxi 150 ml version can hold two SuperMegaCassettes for mucosectomies or 20 Bio Cassettes.

| | PRODUCT | PACK | CODE |
|---|---|---|---|
| ● | **Klessidra 3.0 - 90 ml**<br>90 ml of 10% buffered neutral formalin | 8 pcs. | 05-01V125PK |
| ● | **Klessidra 3.0 - 160 ml**<br>150 ml of 10% buffered neutral formalin | 8 pcs. | 05-01V250PK |


p. 20

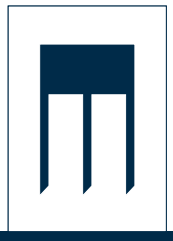


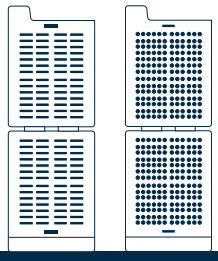

p. 25



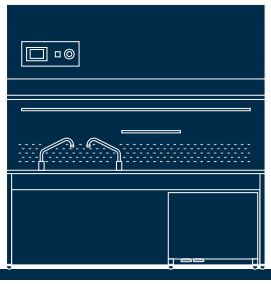
p. 26

p. 32





## Grossing



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## Trimming Tech histology hood

Trimming Tech hoods are designed to the highest quality standards so as to meet all operator requirements in relation to the prevention of chemical risk during grossing of histological samples. Made of stainless steel, they are equipped with a multiple extractor system that extracts fumes from the work surface, from the front and from above. The control panel with soft-touch keypad provides an intuitive interface for setting the desired operating parameters.

**Construction features**

- Stainless steel structure
- Power-operated vertically sliding front safety glass sash for fume containment
- Filter basket and lid for the formalin container

**Work surface features**

- Non-drip lip
- Sink with pedal-operated mixer tap and pull-out shower head for washing the work surface
- Formalin disposal tank
- Waste fluid collection tanks with extractor and independent washing system

**Extractor system**

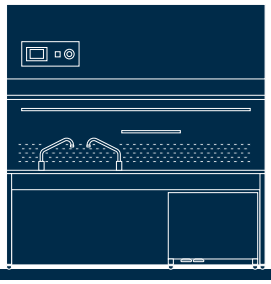
- Pre-installed alumina filters for formalin
- Cartridge-type synthetic fiber pre-filters pre-installed

| | PRODUCT | WORK SURFACE | DIMENSIONS | CODE |
|---|---|---|---|---|
| ● | **Trimming Tech 90** | with sink on left | 900x750x2230 mm | 50-090-001 |
| | | with sink on right | | 50-090-002 |
| ● | **Trimming Tech 130** | with sink on left | 1300x750x2230 mm | 50-130-001 |
| | | with sink on right | | 50-130-002 |
| ● | **Trimming Tech 150** | with sink on left | 1500x750x2230 mm | 50-150-001 |
| | | with sink on right | | 50-150-002 |
| ● | **Trimming Tech 180** | with sink on left | 1800x750x2230 mm | 50-180-001 |
| | | with sink on right | | 50-180-002 |
| | | with central sink | | 50-180-003 |

## Accessories for grossing hoods

| PRODUCT | CODE |
|---|---|
| Garbage disposal unit with pedal control (*) | |
| Millimeter ruler | 50-500-054 |
| Stainless steel filter for formalin sink | 50-500-059 |
| Magnetic knife-holder (*) | 50-500-060 |
| UV lamp with protective roller blind (*) | 50-500-057 |
| HEPA Filter (High Efficiency Particulate Air) | 50-F005 |
| Alumina filter for formalin | 50-F017 |
| Synthetic fiber pre-filter | 50-F007 |
| Stainless steel filter for water sink | 50-500-062 |

(*) Accessories which can only be installed at the time of production



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## Receiving Tech

Receiving Tech is a downdraft table designed for the reception of histological samples preserved in formalin. It is the ideal solution for ensuring operator safety during reception, while keeping the samples fully accessible.
The control panel with soft-touch keypad provides an intuitive interface for setting the desired operating parameters.

**Construction features**

- Stainless steel structure
- Work surface designed for maximum usable area

**Extractor system**

- Downdraft and frontal fume extractor system
- Pre-installed filter

| PRODUCT | DIMENSIONS | CODE |
|---|---|---|
| Receiving Tech 130 | 1300x750x1200 mm | 50-130-301 |
| Receiving Tech 150 | 1500x750x1200 mm | 50-150-301 |
| Receiving Tech 180 | 1800x750x1200 mm | 50-180-301 |
| Alumina filter for formaldehyde | | 50-F003 |
| Synthetic fiber pre-filter | | 50-F007 |

## Swordfish 5000 autopsy saw with extractor system

Autopsy saw with waste extraction and collection system.
The tool is equipped with a starter kit consisting of:

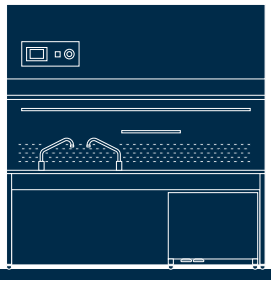
- 1 circular blade, diameter 64 mm
- 1 circular plaster blade, diameter 64 mm
- 1 circular blade, diameter 76 mm
- 1 x 51 mm segmented blade
- 1 paper filter
- 1 fabric filter
- 1 HEPA micro-filter


| PRODUCT | CODE |
|---|---|
| **Autopsy saw with extractor system** | 32-MSYS5000 |

| PRODUCT AND DESCRIPTION | CODE |
|---|---|
| **64 mm circular autopsy blade, pack of 10 pcs.**<br>This the most popular blade for the majority of autopsy operations. Wide-set teeth minimize sticking.<br>Four fastening points for enhanced safety. These can be rotated into a new position, when one area of the saw becomes blunt. | 32-MBC64M |
| **64 mm circular plaster blade, pack of 10 pcs.**<br>Fine-set teeth increase accuracy and reduce the risk of slippage. Can be rotated for longer service life. | 32-MBC64P |
| **76 mm circular autopsy blade, pack of 10 pcs.**<br>A wider blade for deeper cuts. Wide-set teeth minimize sticking. Can be rotated for longer service life. | 32-MBC76 |
| **51 mm segmented blade, pack of 10 pcs.**<br>A segmented blade for more accurate work in specialist applications. | 32- MBS51 |

## Autopsy instruments available to order

- Autopsy needles
- Cartilage knives
- Brain knife
- Organ knife
- Straight surgical scissors
- Curved surgical scissors
- Bowel scissors
- Dissecting scissors
- Incision scissors
- Straight microscopy scissors
- Curved microscopy scissors
- Muscle scissors
- Anatomical forceps
- Surgical forceps
- Hemostatic forceps
- Mallets
- Chisel
- Pointed scalpels
- Stille osteotomes
- Gouges
- Probes
- Blood scoop
- Cranium chisel
- Rib shears
- Bone scissors
- Osteotomy forceps
- Measuring instruments
- Bow saw
- Amputation saw



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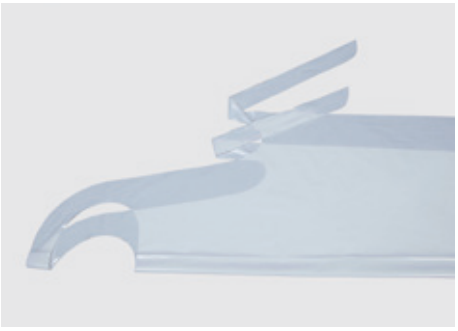
## Protective equipment for laboratory work



### Single-use aprons

Made of polythene, ideal for laboratories and dissecting rooms.

| PRODUCT | DIMENSIONS | PACK | CODE |
|---|---|---|---|
| Transparent | 145x110 cm | 25 pcs. | 08-20450 |
| Transparent | 170x110 cm | 25 pcs. | 08-20700 |
| White with dispenser | 140x75 cm | 50 pcs. | 08-22140 |
| White with dispenser | 170x75 cm | 50 pcs. | 08-22170 |

### Vantage cut-resistant gloves

Gloves for professional use. These gloves provide excellent cut-resistance combined with light weight and maximum dexterity, level III protection.

| SIZE | PACK | CODE |
|---|---|---|
| Small | 1 pair | 08-70-750/S |
| Medium | 1 pair | 08-70-750/M |
| Large | 1 pair | 08-70-750/L |
| Extra large | 1 pair | 08-70-750/XL |

### Metal mesh gloves

For use during autopsies and grossing of anatomical specimens.

| SIZE | PACK | CODE |
|---|---|---|
| Small | 1 pair | 08-530 |
| Medium | 1 pair | 08-533 |
| Large | 1 pair | 08-535 |


### Transport bags

Polypropylene bags for transporting specimens, complete with grip seal closure and document folder.

| DIMENSIONS | PACK | CODE |
|---|---|---|
| 16 x 25 cm | 500 pcs. | 44-9590 |

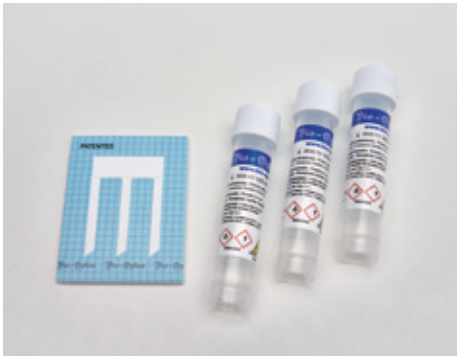
## Bio-Pads

Pads made of special fabric for absorbing formaldehyde.
Ideal for containing spillages, leaks and drips of formaldehyde when grossing anatomical specimens, thus reducing the risk of operator exposure to formalin.

| DIMENSIONS | PACK | CODE |
|---|---|---|
| 203 x 254 mm | 25 pcs. | 08-FNP0810 |
| 406 x 508 mm | 25 pcs. | 08-FNP1620 |

## Accessories

### Endokit

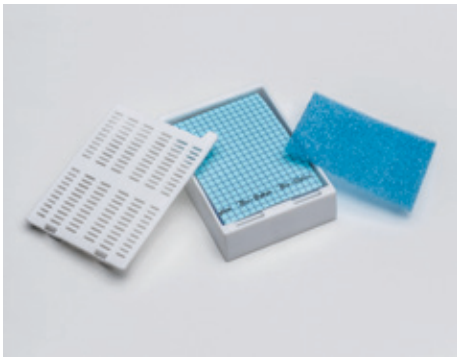


Endokit is a complete patented system for the correct orientation of endoscopic biopsies, consisting of:

- Pre-cut strips of nitrocellulose with one slanted end
- Test tubes pre-filled with buffered neutral 10% formalin for immediate fixation of biopsies

| PACK | CODE |
|---|---|
| 40 Endokit strips and 80 pre-filled test tubes | 08-8700N |
| 40 Endokit | 08-8710N |

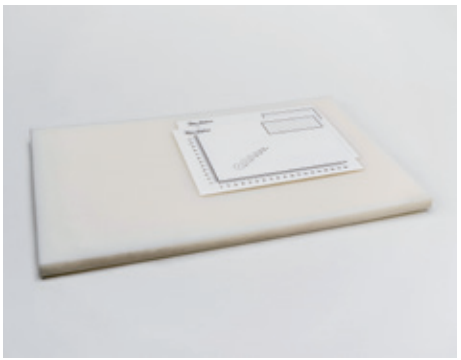
### Mucosectomy Kit



An innovative kit for the correct positioning of mucosectomies, so that they can provide enough histopathological tissue for correct diagnosis.

| PACK | DIMENSIONS | CODE |
|---|---|---|
| 5 mucosectomy kits | 70X50 mm | 08-8800 |

### Grossing board



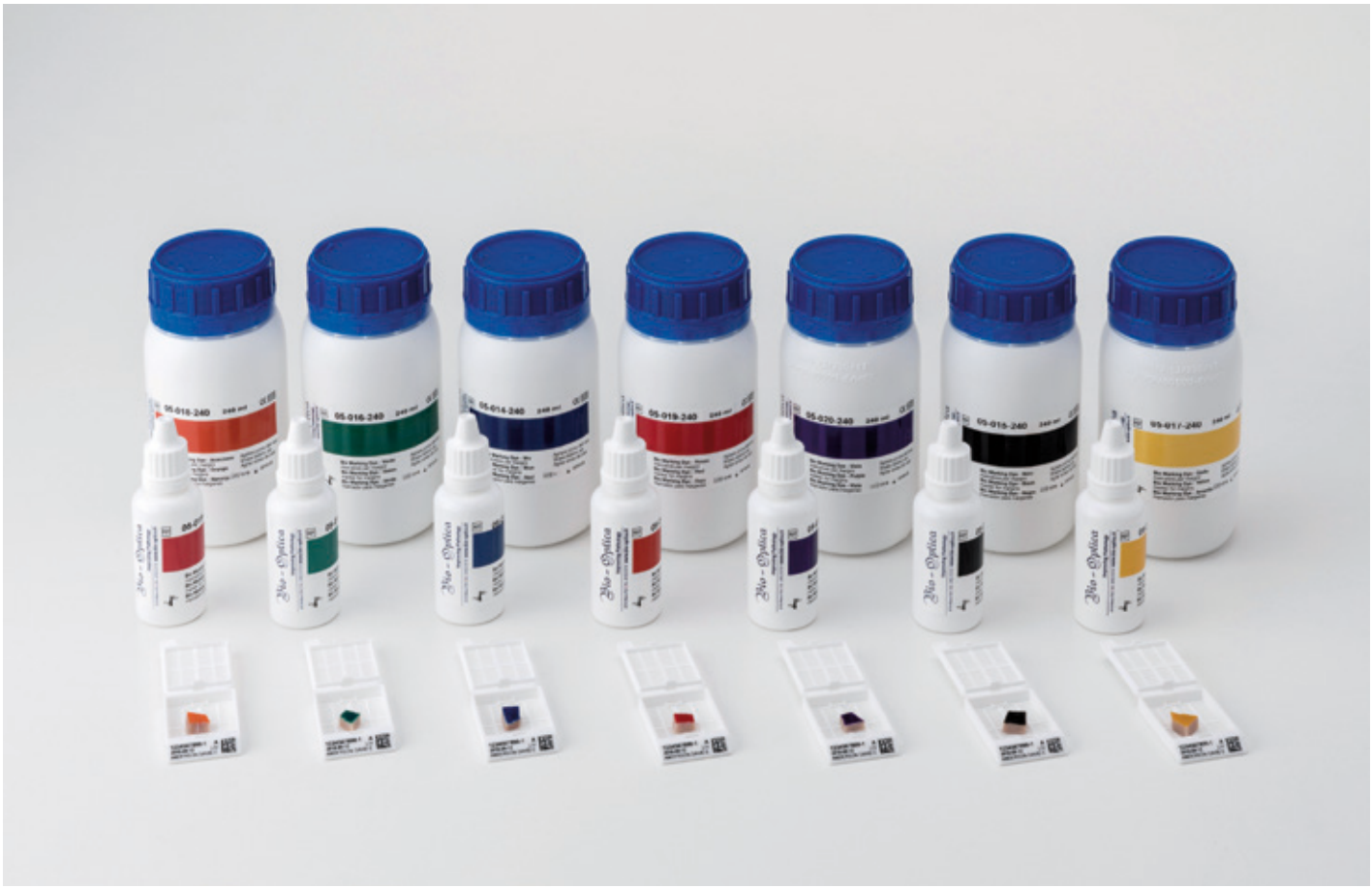
Grossing boards for the dissection of anatomical specimens. The single-use grossing boards are equipped with a millimeter scale.

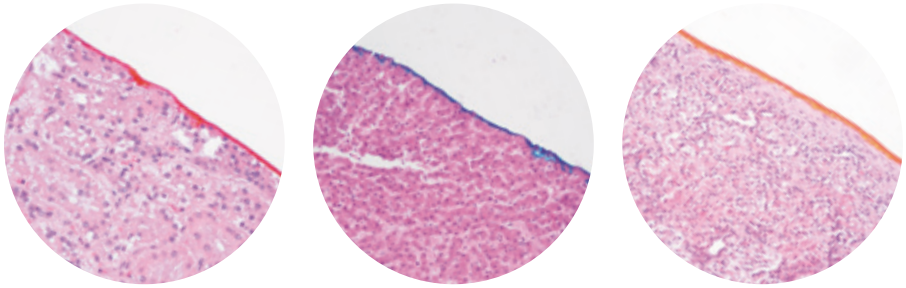
| DIMENSIONS | MATERIAL | PACK | CODE |
|---|---|---|---|
| 30 x 50 cm | Polythene | 1 pc. | 07-7807 |
| 15 x 21 cm | Cardboard | 20 pcs. | 08-8000 (single-use) |
| 30 x 21 cm | Cardboard | 20 pcs. | 08-8010 (single-use) |
| 30 x 42 cm | Cardboard | 20 pcs. | 08-8020 (single-use) |
| 35 x 45 cm | Polythene | 1 pc. | 19-AC515/PS |

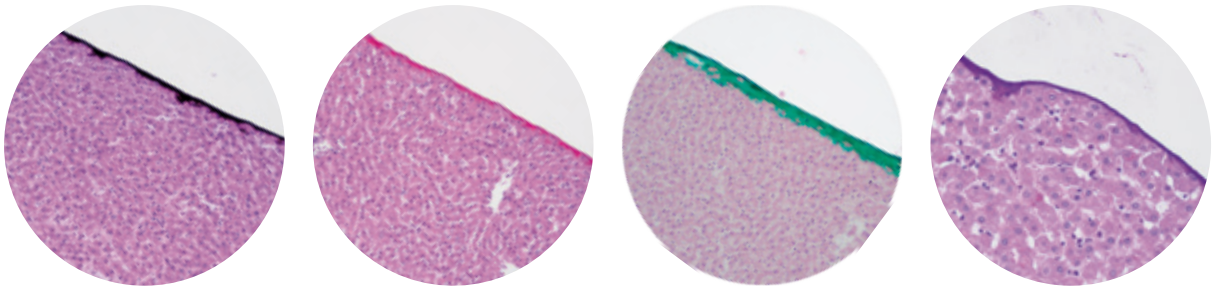
## Bio Marking Dyes

Bio-Optica marking dyes are special, non-toxic inks, made with natural polymers, used to mark surgical margins.
The advantages of using Bio Marking Dyes are as follows:

- They are non-toxic and made with natural polymers
- They dry in 2-3 minutes
- They do not require any additional work phases in other solutions to fix the color
- They do not spread into the tissue
- They can be applied to fresh or fixed samples
- They do not release color into solutions during fixing and processing





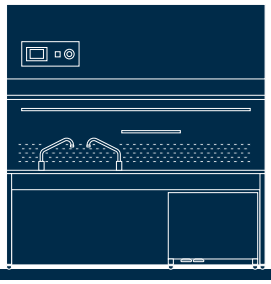


## 30 ml bottles with dispenser

| COLOR | PACK | CODE |
|---|---|---|
| Kit comprising 7 colors | 1 kit | 05-000-030 |
| Blue | 8 pcs. | 05-014-030 |
| Black | 8 pcs. | 05-015-030 |
| Green | 8 pcs. | 05-016-030 |
| Yellow | 8 pcs. | 05-017-030 |
| Orange | 8 pcs. | 05-018-030 |
| Red | 8 pcs. | 05-019-030 |
| Violet | 8 pcs. | 05-020-030 |

## 240 ml bottles

| COLOR | PACK | CODE |
|---|---|---|
| Blue | 1 pc. | 05-014-240 |
| Black | 1 pc. | 05-015-240 |
| Green | 1 pc. | 05-016-240 |
| Yellow | 1 pc. | 05-017-240 |
| Orange | 1 pc. | 05-018-240 |
| Red | 1 pc. | 05-019-240 |
| Violet | 1 pc. | 05-020-240 |



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## Multi-purpose containers

Impact-resistant containers for the storage of small histological samples.

| CAPACITY | PACK | CAP | CODE |
|---|---|---|---|
| 10 ml | 1800 pcs. | Press | 07-7760 |
| 20 ml | 1000 pcs. | Press | 07-7770 |
| 30 ml | 750 pcs. | Press | 07-7780 |
| 50 ml | 500 pcs. | Press | 07-7790 |
| 40 ml | 500 pcs. | Screw | 07-M40 |
| 60 ml | 500 pcs. | Screw | 07-M60 |

Multi-purpose containers with hermetically sealed press cap for the storage of histological samples, serigraphed with hazard symbols and risk phrases for formalin.

| CAPACITY | PACK | CAP | CODE |
|---|---|---|---|
| 125 ml | 250 pcs. | Press | 07-7700 |
| 250 ml | 200 pcs. | Press | 07-7750 |
| 500 ml | 100 pcs. | Press | 07-7710 |
| 1000 ml | 100 pcs. | Press | 07-7720 |
| 3000 ml | 50 pcs. | Press | 07-7730 |
| 5000 ml | 20 pcs. | Press | 07-7740 |

## Buffered neutral 10% formalin in pre-filled containers

| CAPACITY | PACK | CAP | CODE |
|---|---|---|---|
| 10 ml | 80x5 ml | Screw | 05-01P05 |
| 35 ml | 54x9 ml | Screw | 05-01V15P |
| 55 ml | 54x18 ml | Screw | 05-01V30P |
| 55 ml | 54x28 ml | Screw | 05-01V60P |
| 125 ml | 24x75 ml | Screw | 05-01V125P |
| 250 ml | 12x130 ml | Press | 05-01V250P |
| 500 ml | 6x300 ml | Press | 05-01V500P |
| 1000 ml | 6x600 ml | Press | 05-01V1000P |
| 3000 ml | 4x1500 ml | Press | 05-01V3000P |
| 5000 ml | 4x3000 ml | Press | 05-01V5000P |

## Ready-to-use formalin

| PRODUCT | PACK | CODE |
|---|---|---|
| **10% formalin with acetate buffer** | 4x 2,5 l | 05-01011Q |
| | 1x20 l | 05-K01011 |
| **Buffered neutral 10% formalin** | 4x2,5 l | 05-01005Q |
| | 1x5 l | 05-01004F |
| | 1x10 l | 05-K01009 |
| | 1x20 l | 05-K01004 |
| With tap | 1x10 l | 05-K01009R |
| | 1x20 l | 05-K01004R |
| **10% formalin, saline** | 4x2,5 l | 05-01020Q |

## Concentrated formalin

| PRODUCT | PACK | CODE |
|---|---|---|
| **38-40% formaldehyde** | 4x2,5 l | 05-01007Q |
| | 1x20 l | 05-K01007 |
| **Concentrated buffered neutral formalin** | 4x2,5 l | 05-01006Q |
| | | 05-K01004/CO |

## Other fixatives

| PRODUCT AND DESCRIPTION | PACK | CODE |
|---|---|---|
| **B 5** | 1x500 ml | 05-M01023 |
| For hematopoietic tissue | | |
| **Bouin** | 1x500 ml | 05-M01008 |
| For bone marrow biopsies | 4x2,5 l | 05-01008Q |
| **Bouin Hollande sublimate** | 1x500 ml | 05-M01026 |
| For fixation of the pituitary gland and endocrine pancreas | | |
| **Carnoy** | 1x500 ml | 05-M01013 |
| Product of choice for glycogen | 1x2,5 l | 05-01013E |
| **Carson** | 1x500 ml | 05-M01019 |
| For electron microscopy | | |
| **Dubosq Brezil** | 1x500 ml | 05-M01024 |
| For fine-needle aspiration | | |
| **FAA fixative** | 1x2,5 l | 05-01001E |
| Mixture for fatty samples | | |
| **Hollande** | 54x18 ml | 05-01030V30P |
| Excellent for trichrome staining | 1x2,5 l | 05-01030E |
| **Immunofix** | 1x10 l | 05-K01015 |
| Comprising 4% paraformaldehyde in phosphate buffer, ideal for immunohistochemistry | | |

## Decalcifying agents

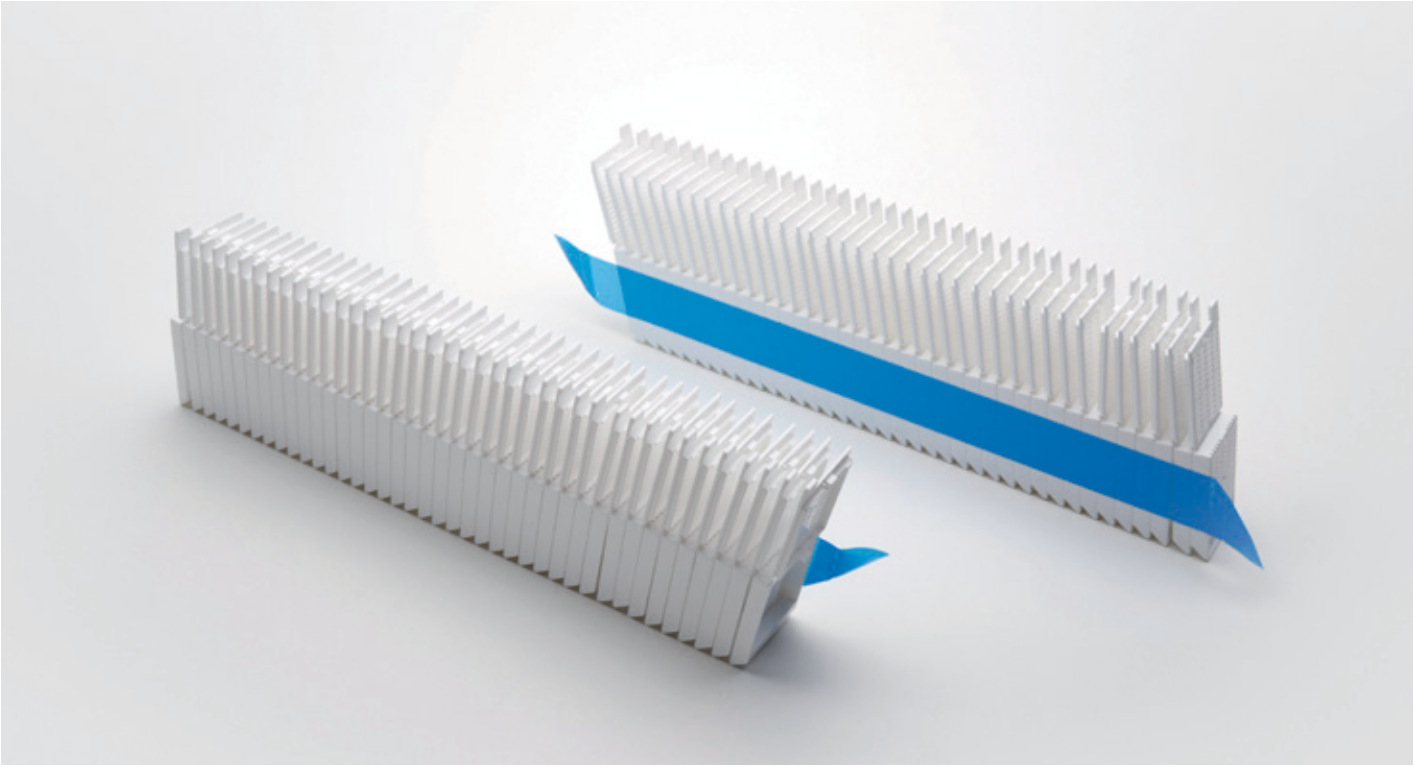
Decalcifying and/or fixative solutions for bone marrow biopsies and calcified tissues.

| PRODUCT AND DESCRIPTION | PACK | CODE |
|---|---|---|
| **Mielodec** | 10x100 ml | 04-230827 |
| Two-component fixative decalcifying agent for bone marrow biopsies | | |
| **Gooding- Stewart** | 1x2,5 l | 05-03003E |
| For calcified bone | | |
| **Osteodec** | 1x500 ml | 05-M03005 |
| Decalcifying agent for bone biopsies | 4x2,5 l | 05-03005Q |
| **Biodec R** | 1x500 ml | 05-M03009 |
| Rapid decalcifying agent for mineralized tissue | 4x2,5 l | 05-03009Q |
| **Electrolytic decalcifying agent** | 1x500 ml | 05-M03004 |
| Decalcifying mixture comprising formic acid and hydrochloric acid | 4x2,5 l | 05-03004Q |

## Stacked Bio Cassettes with lid with tape for printers

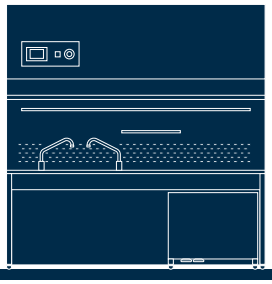
Bio Cassettes in polyacetal resin compatible with the main printing systems available on the market.

| COLOR | PACK | CODE |
|---|---|---|
| White | 40 magazines of 40 pcs. | 07-9700 |
| Orange | 40 magazines of 40 pcs. | 07-9710 |
| Blue | 40 magazines of 40 pcs. | 07-9720 |
| Yellow | 40 magazines of 40 pcs. | 07-9730 |
| Lilac | 40 magazines of 40 pcs. | 07-9740 |
| Pink | 40 magazines of 40 pcs. | 07-9750 |
| Green | 40 magazines of 40 pcs. | 07-9760 |



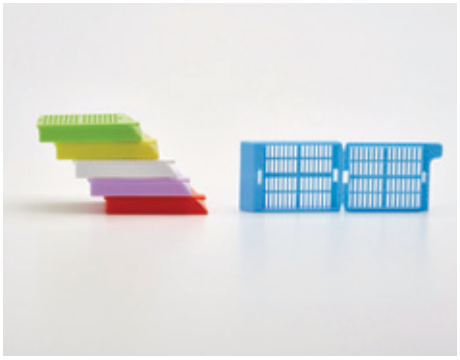
### COMPATIBILITY WITH COMMERCIALLY AVAILABLE WRITING SYSTEMS

| CODE | PRIMERA | LEICA IPC | SAKURA SMART WRITE | SAKURA AUTO WRITE | THERMO PRINT MATE | HANDWRITING |
|---|---|---|---|---|---|---|
| 07-9700 | V | V | V | V | X | X |
| 07-9710 | V | V | V | V | X | X |
| 07-9720 | V | V | V | V | X | X |
| 07-9730 | V | V | V | V | X | X |
| 07-9740 | V | V | V | V | X | X |
| 07-9750 | V | V | V | V | X | X |
| 07-9760 | V | V | V | V | X | X |



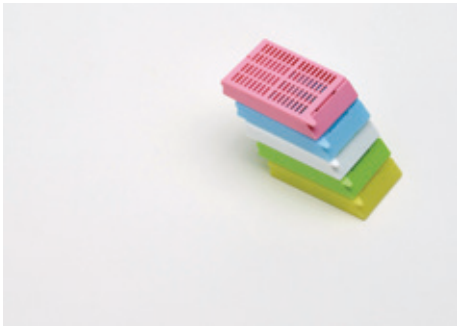
Bio - Optica

## Bio Cassettes



- **Bio Cassettes** of acetal resin for embedding standard samples with lid

| COLOR | PACK | CODE |
|---|---|---|
| White | 3x500 pcs. | 07-7100 |
| Orange | 3x500 pcs. | 07-7110 |
| Blue | 3x500 pcs. | 07-7120 |
| Yellow | 3x500 pcs. | 07-7130 |
| Lilac | 3x500 pcs. | 07-7140 |
| Pink | 3x500 pcs. | 07-7150 |
| Green | 3x500 pcs. | 07-7160 |
| Gray | 3x500 pcs. | 07-7180 |



- **Bio Cassettes II** of acetal resin for embedding standard samples with separate lid

| COLOR | PACK LIDS + CASSETTES | CODE |
|---|---|---|
| White | 1x2000 pcs. + 2x1000 pcs. | 07-8100 |
| Orange | 1x2000 pcs. + 2x1000 pcs. | 07-8110 |
| Blue | 1x2000 pcs. + 2x1000 pcs. | 07-8120 |
| Yellow | 1x2000 pcs. + 2x1000 pcs. | 07-8130 |
| Lilac | 1x2000 pcs. + 2x1000 pcs. | 07-8140 |
| Pink | 1x2000 pcs. + 2x1000 pcs. | 07-8150 |
| Green | 1x2000 pcs. + 2x1000 pcs. | 07-8160 |

- **Biopsy Cassettes** acetal resin cassettes for embedding biopsies and small samples with lid

| COLOR | PACK | CODE |
|---|---|---|
| White | 3x500 pcs. | 07-7200 |
| Orange | 3x500 pcs. | 07-7210 |
| Blue | 3x500 pcs. | 07-7220 |
| Yellow | 3x500 pcs. | 07-7230 |
| Pink | 3x500 pcs. | 07-7250 |
| Green | 3x500 pcs. | 07-7260 |
| Gray | 3x500 pcs. | 07-7280 |

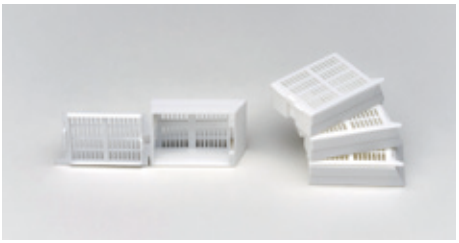
- **Biopsy Cassettes II** acetal resin cassettes for embedding biopsies and small samples with separate lid

| COLOR | PACK LIDS + CASSETTES | CODE |
|---|---|---|
| White | 1x2000 pcs. + 2x1000 pcs. | 07-8200 |
| Orange | 1x2000 pcs. + 2x1000 pcs. | 07-8210 |
| Blue | 1x2000 pcs. + 2x1000 pcs. | 07-8220 |
| Yellow | 1x2000 pcs. + 2x1000 pcs. | 07-8230 |
| Pink | 1x2000 pcs. + 2x1000 pcs. | 07-8250 |
| Green | 1x2000 pcs. + 2x1000 pcs. | 07-8260 |
| Gray | 1x2000 pcs. + 2x1000 pcs. | 07-8280 |

## Mega Cassettes

Double height cassettes with lid.

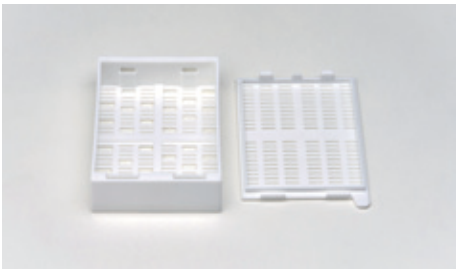
| COLOR | PACK | CODE |
|---|---|---|
| White | 750 pcs. | 07-7300 |



## Super Mega Cassettes

Cassettes for large samples with separate lid, designed with larger mesh to increase the contact surface of the paraffin and prevent the sample from detaching during microtome cutting.

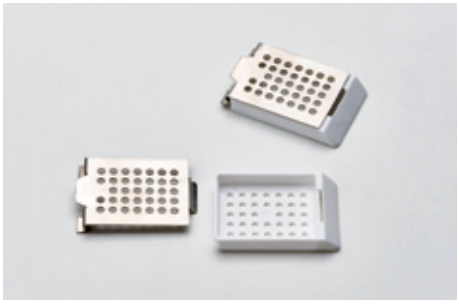
| COLOR | PACK | DIMENSIONS | CODE |
|---|---|---|---|
| White | 200 pcs. | 70x50x15 mm | 07-7000 |



## Embedding Cassettes

Acetal resin cassettes with round holes, for use with metal lids.

| DESCRIPTION | PACK | CODE |
|---|---|---|
| White cassettes | 3x1000 pcs. | 07-7350 |
| Metal lid | 10 pcs. | 07-086-74195 |



## Biopsy pads

Foam pads made of special material that is permeable to solvents and paraffins. They facilitate the processing of very small samples without any risk of loss of material.

| COLOR | PACK | CODE |
|---|---|---|
| Blue | 500 pcs. | 07-7290 |
| Blue | 5000 pcs. | 07-7290/5 |
| Blue | 15000 pcs. | 07-7290/15 |
| Black | 5000 pcs. | 07-7291 |

## Biopsy bags

Fine-mesh nylon bags, resistant to paraffin and solvents. Ideal for processing small histological samples.

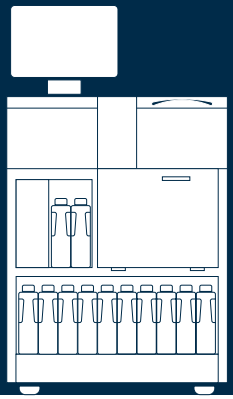
| DIMENSIONS | PACK | CODE |
|---|---|---|
| 30x45 mm | 1000 pcs. | 07-00005 |
| 45x60 mm | 1000 pcs. | 07-00003 |
| 75x73 mm | 1000 pcs. | 07-00004 |


Bio-Optica
X-free
solvente per Istologia
solvent for Histology
solvente para Histología
UN 1263

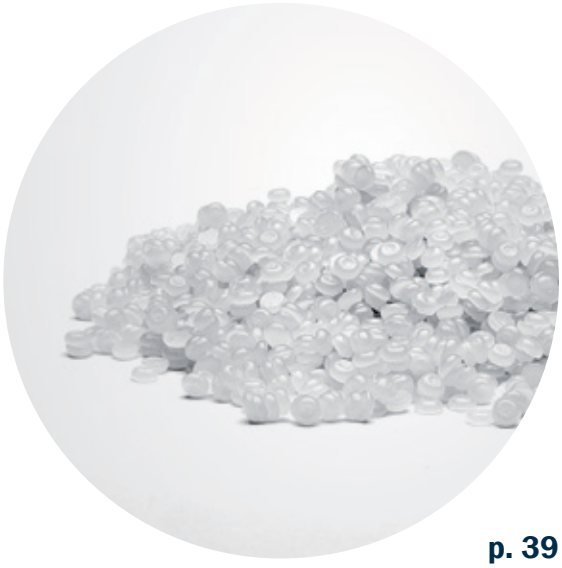
p. 39


VTP 300
Bio-Optica

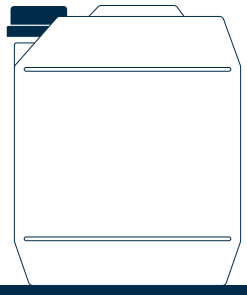
p. 36

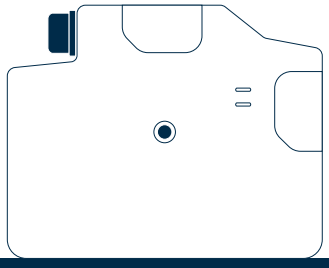


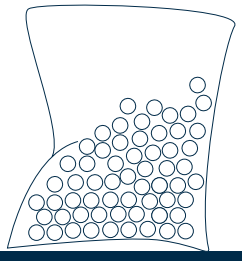

p. 36

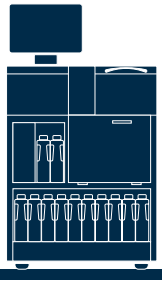


p. 39









Bio - Optica

## VTP 300 and FTP 300 tissue processor

The VTP300 and FTP300 tissue processors are floor-standing automatic vacuum systems designed for routine processing of histological samples. They are compact, user-friendly units that require only minimal maintenance thanks to the handy form of the pre-filled tanks.
All the reagents and consumables, including paraffin, come in compact, easy-to-handle tanks, thus reducing the manual filling phases. The new traceability system maximizes safety by eliminating the possibility of manual error and allowing easy identification of the key processing parameters.
The FTP300 processor differs from the VTP300 in that it is also designed for fast processing of samples. In fact the FTP300 is capable of processing of small biopsies in less than an hour.

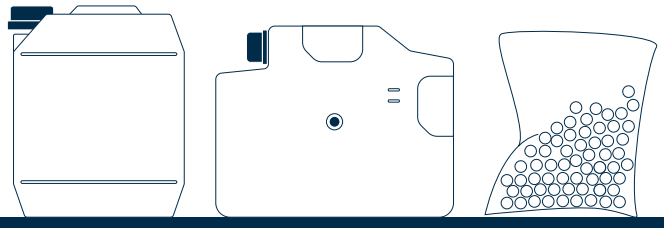

- **Characteristics**

| | |
|---|---|
| Dimensions: | 720 x 600 x 1300 mm (l x w x h) |
| Weight: | 120 kg empty |
| Operating capacity: | 300 cassettes per cycle |

### Pre-filled tanks

| PRODUCT | PACK | CODE |
|---|---|---|
| Tank of Formalin | 6x2,7 l | 65-30001S |
| Tank of Unyhol | 6x2,7 l | 65-30002S |
| Tank of X-Free | 6x2,7 l | 65-30016S |
| Tank of Bio Plast Paraffin | 6x2,7 l | 65-30006S |
| Tank of Distilled Water | 6x2,7 l | 65-30007S |
| Tank of Dehyol 70 | 6x2,7 l | 65-30013S |
| Tank of Dehyol 95 | 6x2,7 l | 65-30008S |
| Tank of Absolute Dehyol | 6x2,7 l | 65-30009S |
| Tank with charcoal filter | 6x2 kg | 65-30011 |

| PRODUCT | CODE |
|---|---|
| **Fast automatic tissue processor FTP300** | FTP300 |
| **Automatic tissue processor VTP300** | VTP300 |






## VTP 360 and FTP 360 tissue processor

The VTP360 and FTP360 tissue processors are floor-standing automatic vacuum systems designed for routine processing of histological samples. They are compact, user-friendly units that require only minimal maintenance thanks to the handy form of the pre-filled tanks.
The new traceability system maximizes safety by eliminating the possibility of manual error and allowing easy identification of the key processing parameters.
The FTP360 processor differs from the VTP360 in that it is also designed for fast processing of samples. In fact the FTP360 is capable of processing of small biopsies in less than an hour.

- **Characteristics**

| | |
|---|---|
| Dimensions: | 690 x 700 x 1,510 mm (l x w x h) |
| Weight: | 225 kg |
| Operating capacity: | 360/450 cassettes per cycle |

## Dedicated reagents

| PRODUCT | PACK | CODE |
|---|---|---|
| Tank of Formalin | 4,1 l | 65-30001F |
| Tank of Unyhol | 4,1 l | 65-30002F |
| Tank of Distilled Water | 4,1 l | 65-30007F |
| Tank of Dehyol 70 | 4,1 l | 65-30013F |
| Tank of Dehyol 95 | 4,1 l | 65-30008F |
| Tank of Absolute Dehyol | 4,1 l | 65-30009F |
| Tank of X-Free | 4,1 l | 65-30016F |
| Tank with charcoal filter | 6x2 kg | 65-30011 |
| Tank of Bio Plast Paraffin | 6x2 kg | 08-7910 |

| PRODUCT | CODE |
|---|---|
| **Fast automatic tissue processor FTP360** | FTP360 |
| **Automatic tissue processor VTP360** | VTP360 |

### Dehyol 70

A 70° alcohol mixture that makes an ideal substitute for 70° ethanol in all histology/cytology procedures.

| PACK | CODE |
|---|---|
| 1x5 l | 06-10075F |
| 4x2,5 l | 06-10075Q |

### Dehyol 95

A 95° alcohol mixture that makes an ideal substitute for 95° ethanol in all histology/cytology procedures.

| PACK | CODE |
|---|---|
| 1x5 l | 06-10070F |
| 4x2,5 l | 06-10070Q |

### Absolute Dehyol

An absolute alcohol mix that makes an ideal substitute for absolute ethanol in all histology/cytology procedures.

| PACK | CODE |
|---|---|
| 1x5 l | 06-10077F |
| 4x2,5 l | 06-10077Q |

### AlcoolPath 95

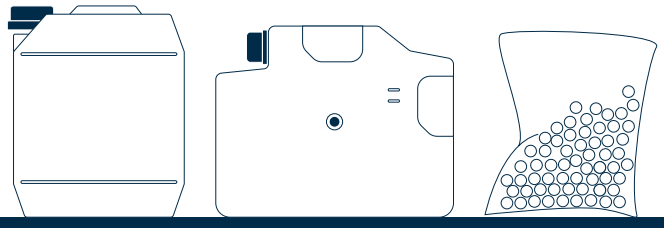
A 95° alcohol mix comprising ethyl alcohol.

| PACK | CODE |
|---|---|
| 1x5 l | 06-10031F |
| 4x2,5 l | 06-10031Q |

### Absolute AlcoolPath

An absolute alcohol mix comprising ethyl alcohol.

| PACK | CODE |
|---|---|
| 1x5 l | 06-10030F |
| 4x2,5 l | 06-10030Q |





### Unyhol

Unyhol is an alcohol mix formulated to prevent excessive dehydration of samples and to substitute the full range of alcohol concentrations.

| PACK | CODE |
|---|---|
| 1x5 l | 06-10071F |
| 4x2,5 l | 06-10071Q |

### Bio Clear

Clearing reagent of natural origin, formulated to replace xylene in the processing, de-waxing and dehydration of slides.

| PACK | CODE |
|---|---|
| 4x2,5 l | 06-1782Q |

### Xylene for histological applications

Xylene-based solvent for histology and cytology procedures.

| PACK | CODE |
|---|---|
| 4x2,5 l | 06-1304Q |
| 1x5 l | 06-1304F |


### X-Free

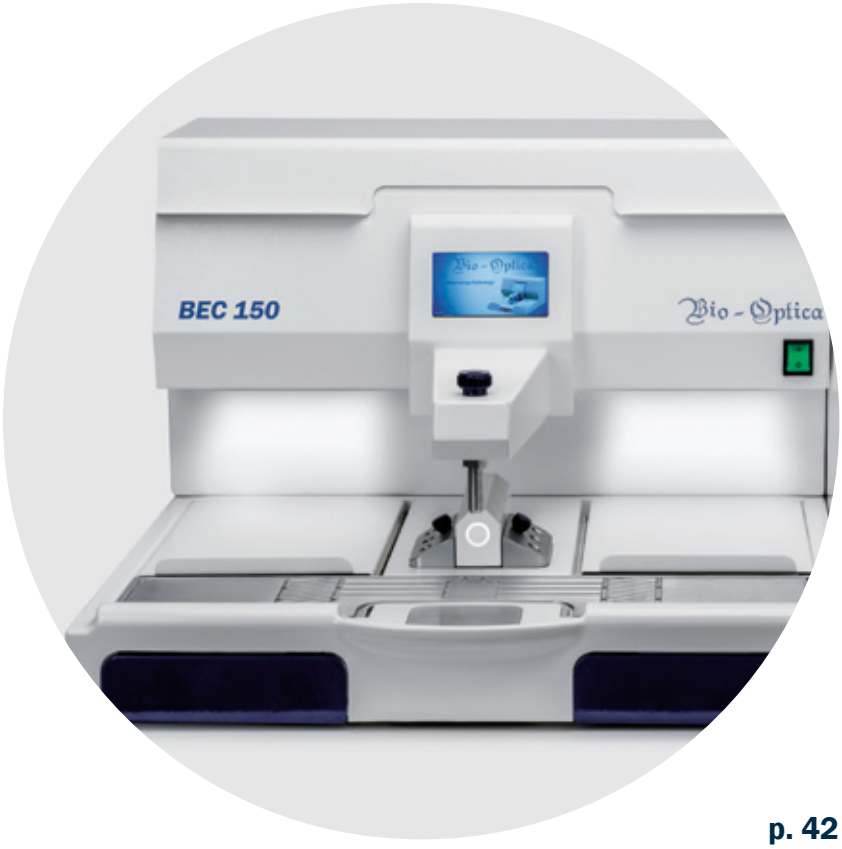
A xylene substitute solvent for use in histology and cytology procedures.

| PACK | CODE |
|---|---|
| 4x2.5 l | 06-1305Q |
| 5 l | 06-1305F |

### Bio-Plast Paraffins

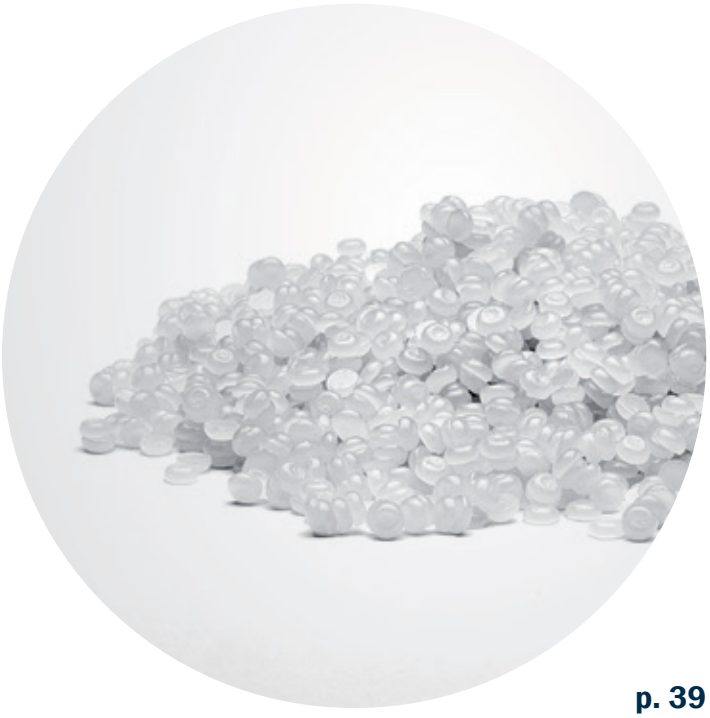
Exclusive blends of high-quality paraffins and plastic polymers. Excellent penetration into all types of tissue and optimum elasticity during cutting, for serial sections including with fibrous tissues.
DMSO-free.

| DESCRIPTION | MELTING POINT | PACK | CODE |
|---|---|---|---|
| Standard, for routine procedures | 56÷58 °C | 6x2 kg | 08-7910 |
| Special, for processing | 52÷54 °C | 6x2 kg | 08-7915 |
| Plus, high-quality mix | 56÷58 °C | 6x2 kg | 08-7920 |
| Standard, for routine procedures | 56÷58 °C | 1x20 kg | 08-7910/20 |
| Plus, high-quality mix | 56÷58 °C | 12x1 kg | 08-7920K |



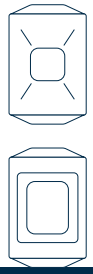

p. 42

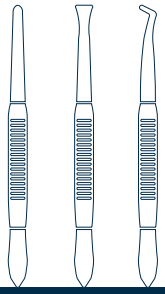
p. 45

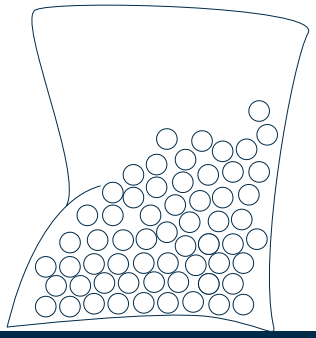


p. 39

p. 44







## Embedding station

Modular specular system for embedding histological samples in paraffin.
Comprises two separate units:

- Paraffin dispenser and thermal unit
- Cooling plate

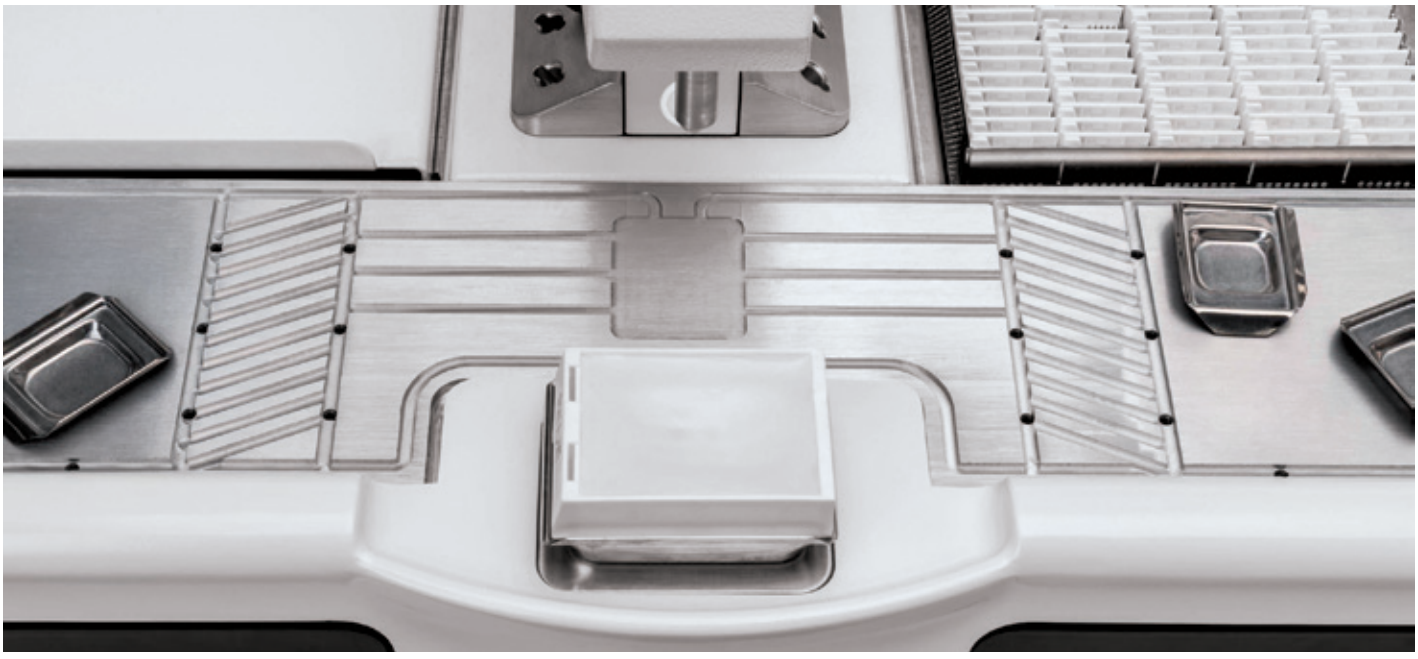
The operating parameters, switch-on and switch-off of the two modules can be programmed separately.

The BEC150 paraffin dispenser is equipped with the following:

- Proximity sensor for dispensing paraffin, with flow control function
- 6 heated, pull-out holders for forceps
- 2 paraffin collection drawers with disposable containers
- Peltier spot capable of accommodating embedding molds for large samples
- Double thermal unit capable of accommodating the racks of any floor-standing processor
- Double jack for heated forceps or pestle
- Touch-screen monitor
- Fully lit work surface

Accurate thermostatic control of the paraffin tank and work plate, and separate heating of the dispensing nozzle keep the operating temperature constant at all times.

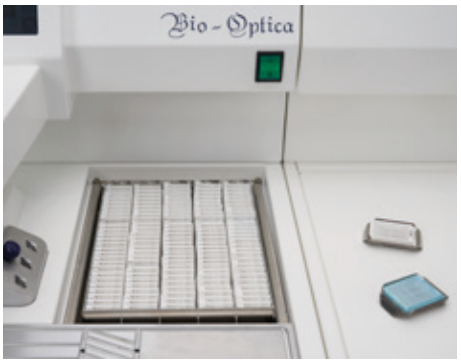
The BCP170 cooling plate can accommodate up to 70 standard embedding cassettes and can be positioned on the right or the left of the paraffin dispenser according to the needs of the operator.
The dispenser can be ordered with the optional BCP230 cooling plate.



## Characteristics

| | |
|---|---|
| Overall dimensions: | 971 x 600 x 385 mm (l x w x h) |
| Total weight: | 60 kg |
| Heated plate: | anodized aluminum, surface 517 x 120 mm (w x d) |
| Paraffin tank: | aluminum, volume 4 liters approx |
| Chambers (two) for processor racks with removable tank: | aluminum, surface 225 x 160 mm (w x d) |
| Cooling surface: | painted aluminum, surface 375 x 355 mm (w x d) |
| Peltier plate dimensions: | 70 x 80 mm |
| Adjustment range: | heated elements: +20°C to +70°C<br>cooling plate: -8°C |

| PRODUCT | CODE |
|---|---|
| BEC150 paraffin dispenser | 40-200-002 |
| BCP170 cooling plate | 40-300-202 |
| BCP230 cooling plate | 40-300-203 |




## DP8R paraffin dispenser

Paraffin dispenser with 8-liter stainless steel tank with heated base, digital electronic thermostat and programmable switch-on and switch-off.

- **Characteristics**

| | |
|---|---|
| Dimensions: | 450 x 370 x 540 mm (l x w x h) |
| Weight: | 16 kg |
| Temperature: | adjustable from +20 °C to +70 °C |

| PRODUCT | CODE |
|---|---|
| DP8R paraffin dispenser | 40-200-101 |

## Heated forceps

Electrically heated, thermostat-controlled forceps for embedding samples. The system is designed to operate with two heated forceps simultaneously.

| PRODUCT | CODE |
|---|---|
| Heated forceps (1 mm tip supplied as standard) | 40-200-050 |
| Replacement red forceps with 1 mm tip | 40-200-053 |
| Replacement yellow forceps with 2 mm tip | 40-300-054 |
| Replacement blue forceps with 4 mm tip | 40-200-055 |

## Forceps

Microscopy forceps made of polyester resin and fiberglass, resistant to acids, bases and heat up to 200 °C.

| PRODUCT | PACK | CODE |
|---|---|---|
| Straight, pointed, 12 cm | 1 pc. | 08-K2A |
| Straight, wide tip, 12 cm | 1 pc. | 08-K35A |
| Curved, pointed, 12 cm | 1 pc. | 08-K6 |
| Straight, flat tip, 12 cm | 1 pc. | 08-KR |

Microscopy forceps made of acid-resistant anti-magnetic steel.

| PRODUCT | PACK | CODE |
|---|---|---|
| Flat and curved tip, 11.5 cm | 1 pc. | 08-321 |
| Flat tip for slides, 10.5 cm | 1 pc. | 08-325 |
| Pointed and knurled, 14 cm | 1 pc. | 08-524 |
| Curved, with guide, 15.5 cm | 1 pc. | 08-615 |

## Steel embedding molds

Stainless steel molds for embedding histological samples in paraffin.

- **Bio Mold**

| MOLD DIMENSIONS | PACK | CODE |
|---|---|---|
| 7 x 7 x 5 mm | 12 pcs. | 07-BM775 |
| 15 x 15 x 5 mm | 12 pcs. | 07-BM15155 |
| 24 x 24 x 5 mm | 12 pcs. | 07-BM24245 |
| 30 x 24 x 5 mm | 12 pcs. | 07-BM30245 |
| 37 x 24 x 5 mm | 12 pcs. | 07-BM37245 |

- **Mega Mold**

| MOLD DIMENSIONS | PACK | CODE |
|---|---|---|
| 33 x 24 x 12 mm | 6 pcs. | 07-MBM6 |

- **Super Mega Mold**

| MOLD DIMENSIONS | PACK | CODE |
|---|---|---|
| 65 x 45 x 15 mm | 10 pcs. | 07-7010 |

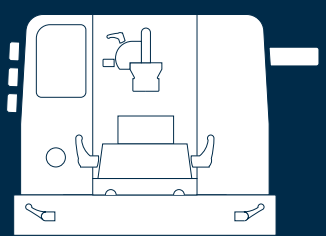
## PVC dispomold

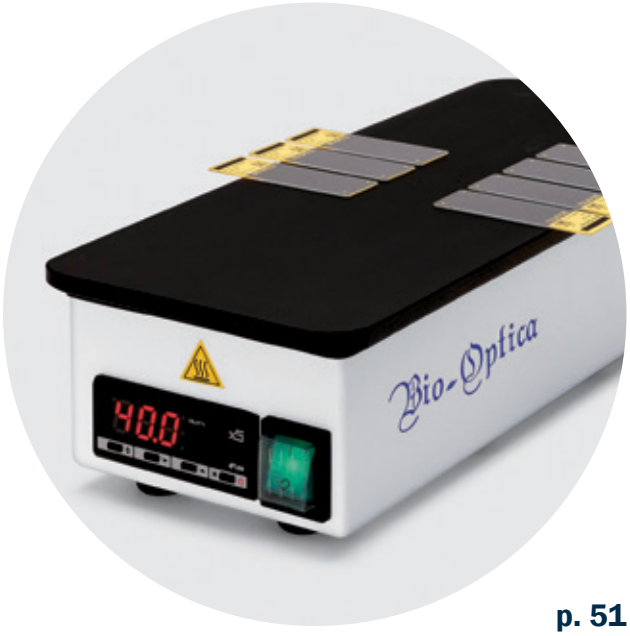
Single-use, PVC embedding molds.

| MOLD DIMENSIONS | PACK | CODE |
|---|---|---|
| 7 x 7 x 5 mm | 1500 pcs. | 07-MP7070 |
| 15 x 15 x 5 mm | 1500 pcs. | 07-MP1515 |
| 24 x 24 x 5 mm | 1500 pcs. | 07-MP2424 |
| 30 x 24 x 5 mm | 1500 pcs. | 07-MP3024 |
| 37 x 24 x 5 mm | 1500 pcs. | 07-MP3724 |


p. 50

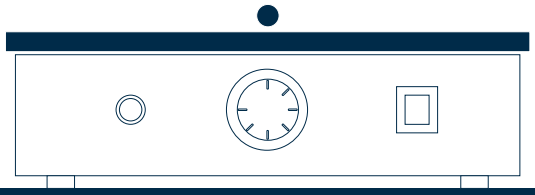

p. 48

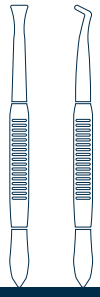





p. 51

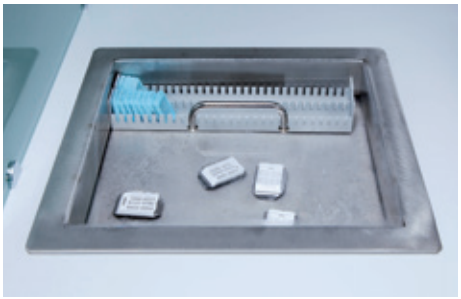
p. 44

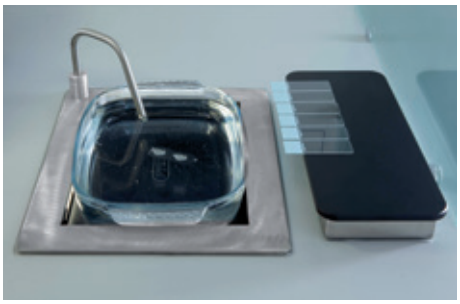




## Microtome Bench

The Microtome Bench is the only cutting station complete with all the necessary instruments for microtome cutting: cooling plate, water bath and hot plate.
The centralized control system facilitates safe, practical management of the accessories.
Their ergonomic layout maximizes ease of access for the operator.





- **Characteristics**

| | |
|---|---|
| Dimensions (W x D x H): | 1500 x 800 x 1775 mm |
| Weight: | 120 Kg |
| **Cooling plate** | |
| Effective work area: | 310 x 300 mm |
| Operating capacity: | up to 170 cassettes, positioned vertically |
| Minimum temperature: | -20°C |
| **Water bath** | |
| Temperature setting range: | +20°C to +70°C |
| Tank lighting: | Neon |
| **Hot plate** | |
| Capacity: | up to 24 slides |
| Temperature setting range: | +20°C to +70°C |

| PRODUCT | CODE |
|---|---|
| Microtome Bench TMB | 40-300-400 |

## TSO table for second operator

Second cutting station equipped with water bath and hot plate.
For use in conjunction with the microtome bench to create two complete stations.

- **Characteristics**

| | |
|---|---|
| Dimensions (W x D x H): | 1200 x 800 x 1775 mm |
| Weight: | 100 Kg |

| PRODUCT | CODE |
|---|---|
| Table for second operator | 40-300-401 |

## BCP230 freezing plate

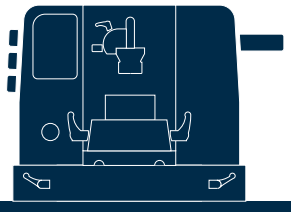
Cooling plate equipped with a work tray with 48 mm high edge, designed to provide a refrigerated chamber and not just a cold work surface.
The chamber is equipped with a lid.
The advantages of this solution are as follows:

- High cooling power
- No condensation on the work surface or dripping on the bench
- Ability to cool a larger number of paraffin-embedded blocks (up to 300 approx) thanks to the special guides, which are available to order.

- **Characteristics**

| | |
|---|---|
| Dimensions: | 410 x 600 x 385 (L x W x H) |
| Weight: | 30 kg |
| Capacity: | up to 300 cassettes approx |
| Operating temperature: | to -20°C |
| Cooling system: | CFC-free |

| PRODUCT | CODE |
|---|---|
| BCP230 freezing plate | 40-300-203 |
| Metal guide for cassettes in vertical position | 40-300-251 |



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## WB1770 water bath

The WB1770 water bath is equipped with a removable Pyrex basin which is easy to fill with water and empty, and safer and more practical to use.
The temperature is controlled by a probe in direct contact with the water, which ensures absolute precision. It is equipped with a heated upper work surface capable of accommodating up to 24 slides.

- **Characteristics**

| | |
|---|---|
| Dimensions: | 350 x 365 x 155 mm (L x W x H) |
| Dimensions of slide-drying surface: | 350 x 100 mm |
| Weight: | 8 kg |
| Thermostat: | electronic thermostat with digital display |
| Bath temperature: | +20 °C to +70 °C |
| Temperature sensor: | NTC10K probe immersed directly in the water with movable arm |
| Basin lighting: | 6 Watt neon lamp |
| Slide plate temperature: | +20 °C to +50 °C |

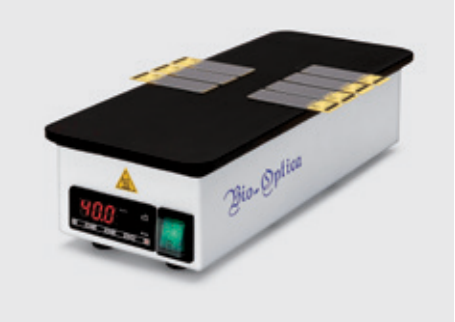
| PRODUCT | CODE |
|---|---|
| WB1770 water bath | 40-300-000 |
| Pyrex basin | 40-300-050.0 |
| Opaline lid | 40-300-051.0 |

## WB100 round water bath

The WB100 round water bath is small, simple and reliable.
It is equipped with an analog thermostat, heating indicator light and wide heated surface for 24 slides.
Dimensions mm 345x100 (ø x h) and dimensions of internal basin mm 225x50 (ø x h)

| PRODUCT | BATH TEMPERATURE | CODE |
|---|---|---|
| WB100 water bath | +30 °C to +80 °C | 40-300-002 |

## PC800 hot plate



The PC800 hot plate can dry 30 slides simultaneously.
It is equipped with an anodized aluminum work surface and digital electronic thermostat.
The temperature is adjustable up to 90 °C.

| PRODUCT | DIMENSIONS | CODE |
|---|---|---|
| PC800 plate | 150 x 380 x 100 mm | 40-300-301 |

## SVF100 forced ventilation histology oven

The SVF100 forced ventilation histology oven is designed for quick drying of slides and quick heating of laboratory material. The digital display enables you to change the operating parameters and program switch-on and switch-off.
The chamber is equipped with two height-adjustable, perforated shelves and a collecting tray, all of which are removable.

- **Characteristics**

| | |
|---|---|
| Dimensions: | 490 x 340 x 610 mm (L x W x H) |
| Internal chamber dimensions: | 410 x 300 x 430 mm (L x W x H) |
| Weight: | 32 kg |
| Power: | 2000 Watt |
| Thermostat: | electronic microprocessor-based thermostat with bilingual digital display |
| Temperature: | +20 °C to +70 °C |
| Programmability: | switch-on and switch-off, weekly |

| PRODUCT | CODE |
|---|---|
| SVF100 oven | 40-300-101 |

## SVN1790 histology oven

The SVFN1790 natural ventilation histology oven is designed to dry slides and heat laboratory material quickly. Complete with two removable perforated shelves and a base tray.

- **Characteristics**

| | |
|---|---|
| Dimensions: | 480 x 380 x 315 mm (L x W x H) |
| Chamber dimensions: | 300 x 300 x 215 mm (L x W x H) |
| Temperature adjustment: | +20 °C to +100 °C with electronic digital thermostat |

| PRODUCT | CODE |
|---|---|
| SVN1790 oven | 40-300-100 |

## Steel blades

Fixed blade with C-profile. Made of durable, high-quality tempered steel for microtome/ cryostat cutting.

| LENGTH | PACK | CODE |
|---|---|---|
| 16 cm | 1 pc. | 08-16/C |

## Brushes

For microtomy and cryo-microtomy.

| PRODUCT | PACK | CODE |
|---|---|---|
| Small for collecting biopsies | 4 pcs. | 08-0822 |
| Small for collecting microtome sections | 4 pcs. | 08-0823 |
| Medium for collecting microtome sections | 4 pcs. | 08-0824 |
| Medium for microtome blade cleaning | 2 pcs. | 08-0825 |
| Large for microtome cleaning | 2 pcs. | 08-0826 |
| Large for cryostat cleaning | 2 pcs. | 08-0827 |
| Set of 5 cryostat brushes (Includes codes 0822-0823-0824-0825-0827) | 1 pc. | 08-0828 |
| Set of 5 microtome brushes (Includes codes 0822-0823-0824-0825-0826) | 1 pc. | 08-0829 |

## BioParaFree

De-waxing solution in spray form, completely odorless, for cleaning paraffin residues from microtomes, embedding stations and work benches.
Supplied in a bottle with nebulizer.

| PACK | CODE |
|---|---|
| 1x100 ml | 08-1750 |
| 4x100 ml | 08-1750-X4 |

## Killik

Non-toxic embedding medium for the preparation of histological tissue for cryostat cutting.

| COLOR | PACK | CODE |
|---|---|---|
| Neutral | 4x100 ml | 05-9801 |
| Blue | 4x100 ml | 05-9801B |

## Crio Clor 0,3

Cryostat disinfectant spray comprising chlorhexidine (0.3%), effective against bacteria, fungi and other viruses (hepatitis B, poliomyelitis, herpes simplex).

| PACK | CODE |
|---|---|
| 1x125 ml | 05-9802 |

## Cryo-Spray

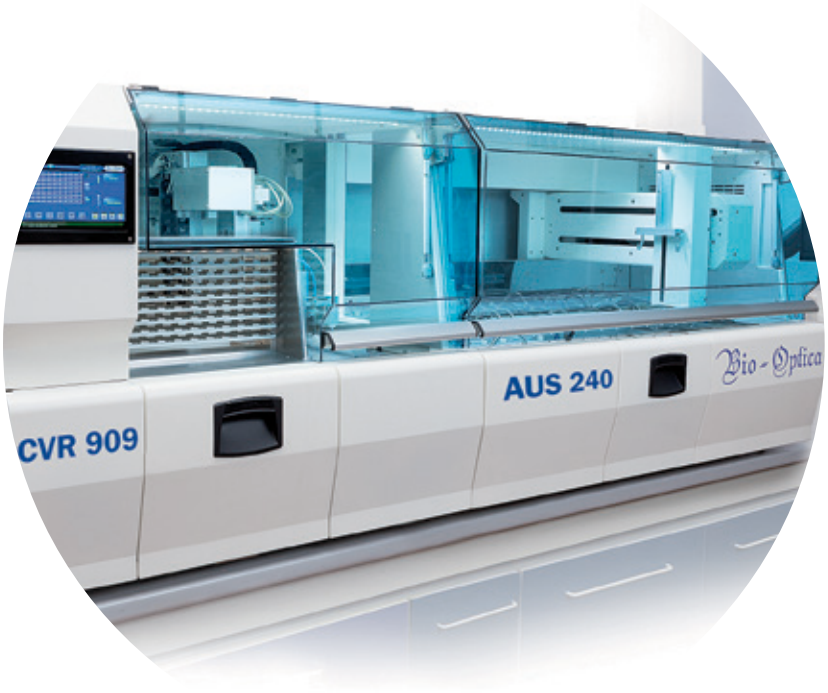
Histological freeze spray: for fast freezing of tissues for cryostat cutting, and for cooling paraffin-embedded samples before microtome cutting.
The new formulation is non-flammable and contains no fluorinated gases.
It is therefore safe for the environment and for operators.

| PACK | CODE |
|---|---|
| 12x150 ml | 08-SPRAY |


## Microtome oil

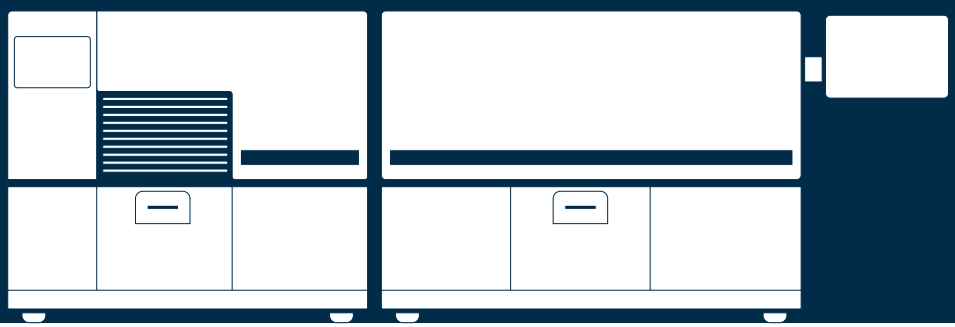
Lubricant for microtomes / cryostats.

| PRODUCT | PACK | CODE |
|---|---|---|
| For microtome | 1x100 ml | 08-1721 |
| For microtome | 2x100 ml | 08-1720 |
| For cryostat | 2x100 ml | 57491 |




p. 56


p. 38

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p. 136


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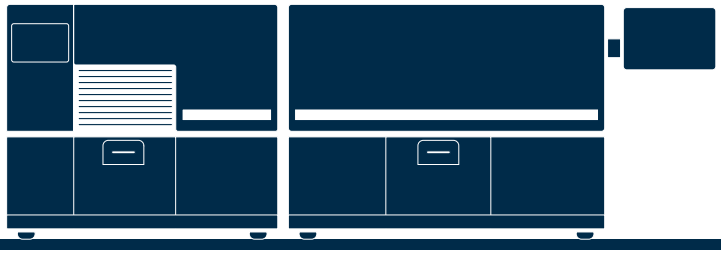
p. 68



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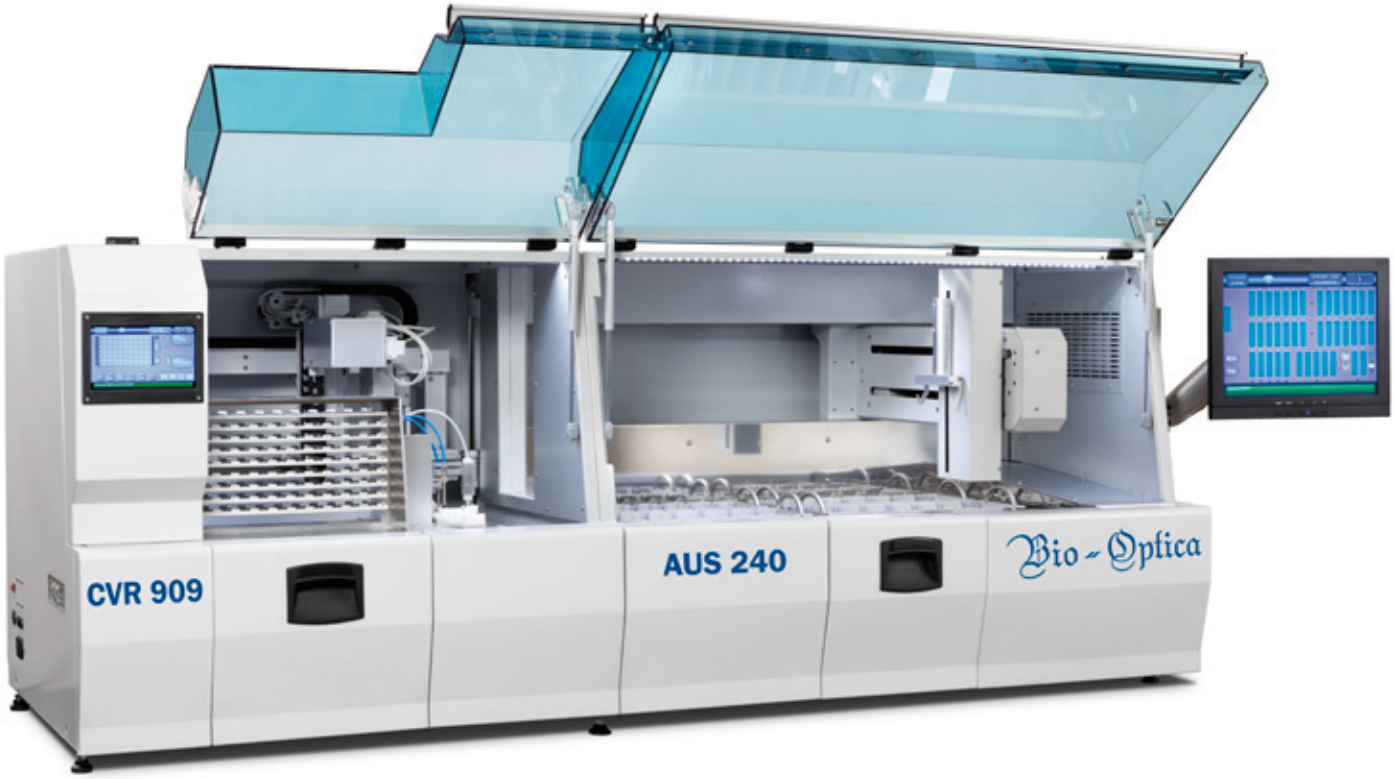


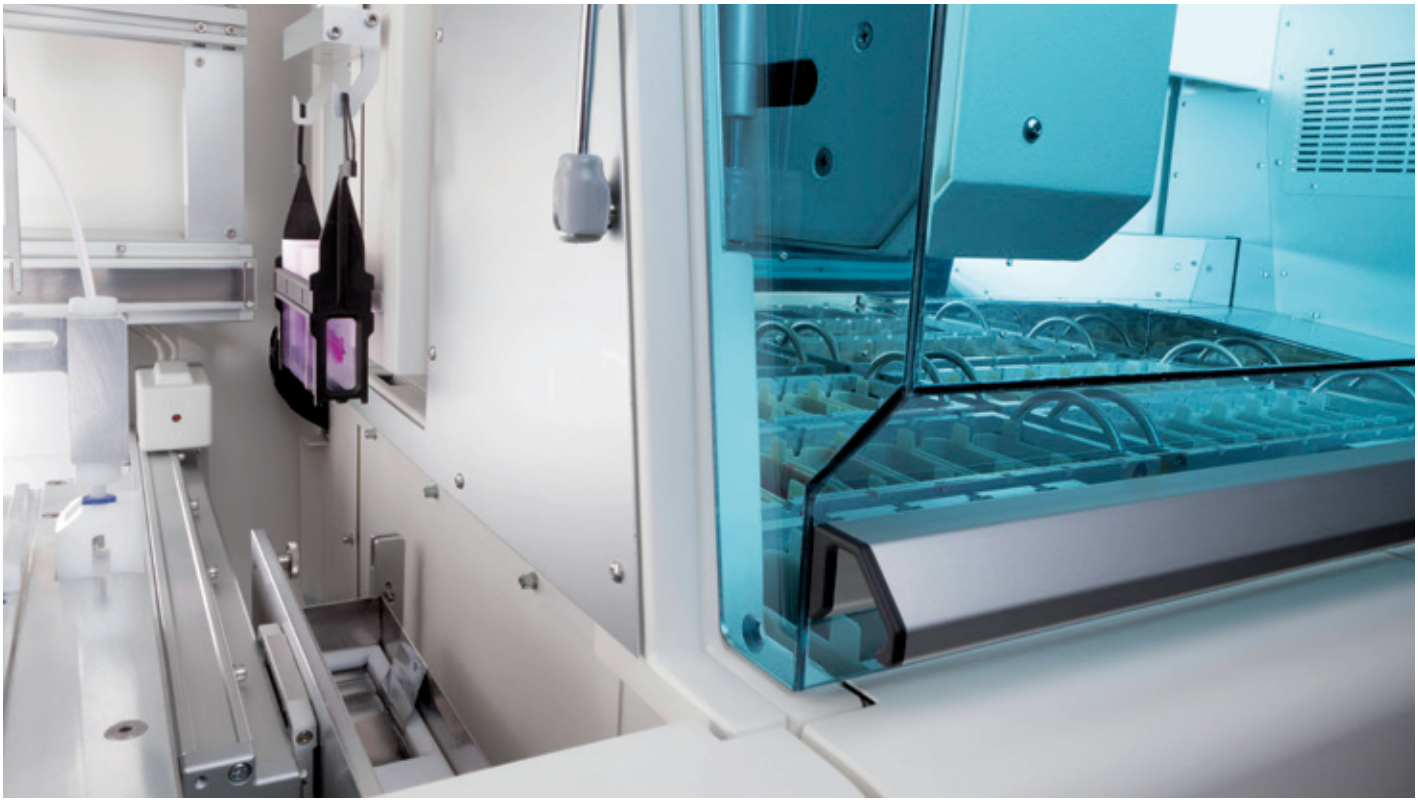

## AUS240 stainer

The AUS240 automated histology stainer with X-Y-axis transfer arm is fully programmable and suitable for all histo-cytological stains, both routine and special. It can perform multiple staining processes simultaneously. Their number is limited only by the number of dishes available (indicatively 10-12 processes).
Continuous loading of racks of 30 slides, with throughput dependent on the staining protocol. Equipped to impart a waving movement on the reagent dishes so as to reduce the quantity of precipitates in the dishes, thus keeping the reagent fresh at all times. The AUS240 can be integrated with the CVR 909 coverslipper.

### Characteristics

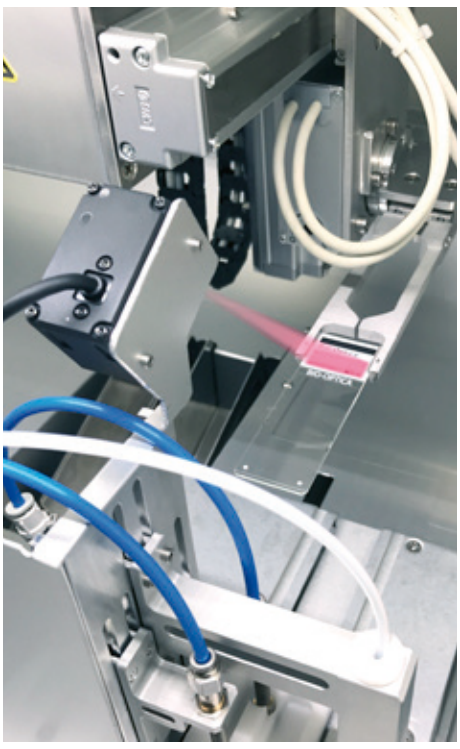
| | |
|---|---|
| Overall dimensions: | 1220 x 780 x 770 mm (L x W x H) |
| Monitor: | + 400 mm (l) |
| Total weight: | 155 kg |
| Reagent work stations: | 28 |
| Water work stations: | 5 |
| Heated drying stations: | 2 (60°C) |
| Unloading stations: | 3 |
| Loading stations: | 2 |
| Dish capacity: | 485 ml |
| Slide rack: | capacity 30 slides |
| Number of programs: | up to 18 programs of over 100 steps each |
| Programmability: | each station can be set with an immersion time of 1” to 99’59” (with tolerance of 1”) |
| Interface: | large color touch-screen monitor for displaying the progress of work protocols, the layout of the process baths and all parameters relating to the staining cycles in progress |
| Safety: | Efficient, integrated fume filtration system |

| PRODUCT | CODE |
|---|---|
| AUS240 stainer | 40-400-350 |



## CVR909 automated coverslipper

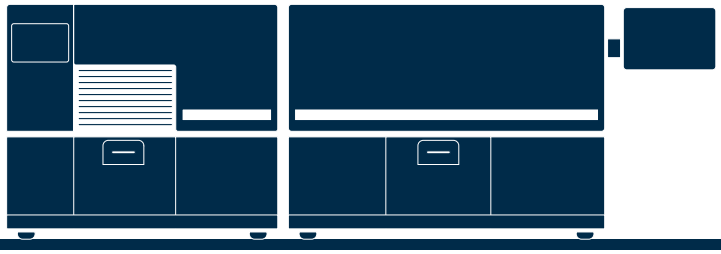
The CVR909 automated coverslipper is the only instrument on the market that arranges the coverslipped slides directly on handy stackable trays, which are resistant to chemical reagents. The instrument is easy to use and specifically developed to facilitate routine laboratory operations. Continuous cleaning of the dispenser needle ensures high-quality coverslipping. The barcode reader ensures that all laboratory processes are fully traceable. Integrated with the AUS240 stainer, the coverslipper fully automates the process of de-waxing, staining and mounting of samples. It is possible to use three different sizes of coverglass (24x40 - 24x50 - 24x60) and to set the mounting medium quantity and dispensing mode.



- **Characteristics**

| | |
|---|---|
| Overall dimensions: | 860 x 780 x 770 mm (L x W x H) |
| Total weight: | 80 kg |
| Throughput: | 180 slides/hour (directly on tray) |
| Mounting medium: | 500 ml container |
| Output of mounted slides: | 9 trays of 10 slides each (total: automated output of 90 slides without operator intervention) |

| PRODUCT | CODE |
|---|---|
| CVR909 automated coverslipper | 40-500-000 |



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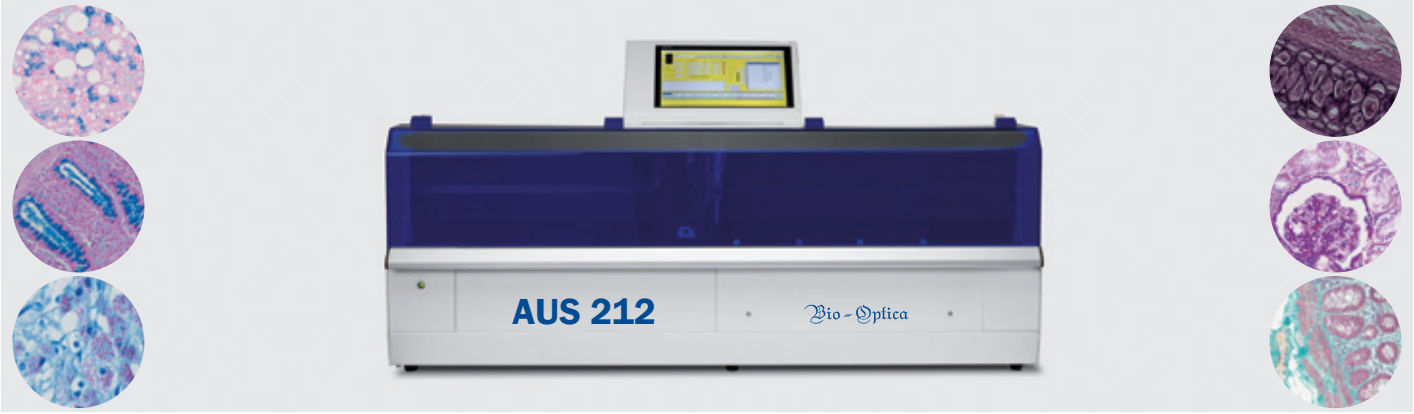


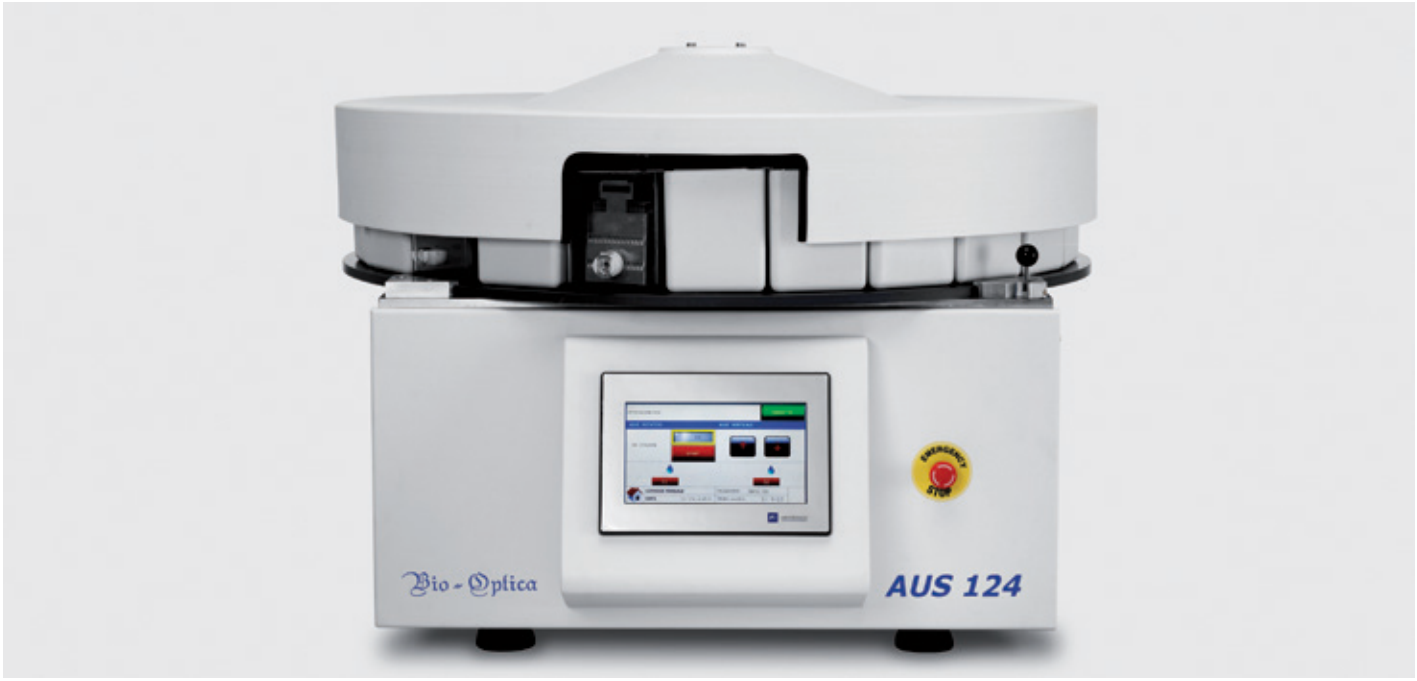

## AUS212 stainer

The AUS212 automated linear stainer is compact and versatile. The heated dishes make it possible to perform sample preparation processes for in situ hybridization, histo-cytological staining and special staining protocols involving heating phases.
It is a closed system that ensures user safety by means of activated carbon filtration and lids designed to minimize emissions.
Equipped with a non-drip system that prevents cross-contamination of reagents and ensures high-quality staining.
Can be used with special low-volume dishes to reduce reagent consumption.

### Characteristics

| | |
|---|---|
| Overall dimensions: | 1010 x 350 x 380 mm (L x W x H) |
| Monitor: | + 150 mm (h) |
| Total weight: | 20 kg |
| Reagent work stations: | 11 |
| Water work stations: | 1 |
| Heated stations: | 4 (up to 98°C) |
| Standard dish capacity: | 250 ml |
| Low-volume dish capacity: | 80 ml |
| Standard slide rack: | capacity 23 slides |
| Low-capacity slide rack: | capacity 8 slides |
| Number of programs: | up to 100 programs of over 100 steps each |
| Programmability: | each station can be set with an immersion time of 1" to 99'59" (with tolerance of 1") |
| Interface: | color touch-screen monitor for displaying the progress of work protocols, the layout of the process baths and all parameters relating to the staining cycles in progress |
| Safety: | efficient, integrated fume filtration system |

| PRODUCT | CODE |
|---|---|
| AUS212 stainer | 40-400-150 |



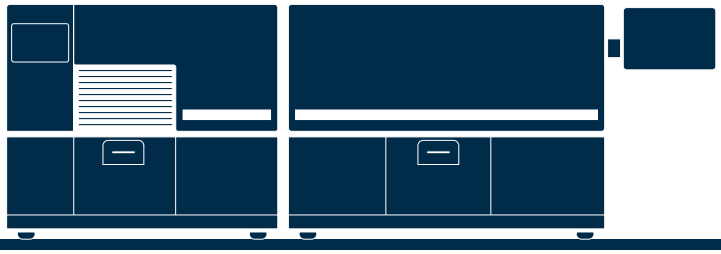

## AUS124 sequential stainer

Reliable and easy to use, the AUS124 automated carousel-style slide stainer. stands out for its built-in fume extraction and filtration system. Equipped with an extremely intuitive programming system, it enables users to set operating parameters in such a way as to alternate multiple staining cycles.

- **Characteristics**

| | |
|---|---|
| Overall dimensions: | 600 x 700 x 600 mm (L x W x H) |
| Total weight: | 75 kg |
| Reagent work stations: | 22 |
| Water work stations: | 2 |
| Dish capacity: | 750 ml |
| Slide rack: | capacity 65 slides |
| Number of programs: | up to 50 programs of 30 steps each |
| Programmability: | each station can be set with an immersion time of 1” to 50’ |
| Interface: | large color touch-screen display shows the programming parameters or parameters of the staining cycle in progress |
| Safety: | equipped with a large protective lid to limit fume emission |
| Other features: | Back-up battery to power the instrument in the event of a mains power outage |

| PRODUCT | CODE |
|---|---|
| AUS124 stainer | 40-400-000 |



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## Lab Tech chemical fume hoods

Lab Tech fume hoods are the ideal solution for mounting and staining operations. Designed for chemical and biological risk prevention. Front and top vapour extraction system.

**Construction features**

- Stainless steel structure
- Manual vertically sliding front safety glass sash for fume containment within the hood
- Shelf
- Control panel with soft-touch keypad for setting the desired operating parameters

**Extraction/filtration system**

- Pre-fitted with synthetic fiber filter and pre-filter
- Predisposition for HEPA Filter


| | PRODUCT | WORK SURFACE | DIMENSIONS | CODE |
|---|---|---|---|---|
| ● | **Lab Tech 90** | with containment lip | 900x750x2230 mm | 50-090-101 |
| | | without containment lip | | 50-090-102 |
| | | with sink on left | | 50-090-103 |
| | | with sink on right | | 50-090-104 |
| ● | **Lab Tech 130** | with containment lip | 1300x750x2230 mm | 50-130-101 |
| | | without containment lip | | 50-130-102 |
| | | with sink on left | | 50-130-103 |
| | | with sink on right | | 50-130-104 |
| ● | **Lab Tech 150** | with containment lip | 1500x750x2230 mm | 50-150-101 |
| | | without containment lip | | 50-150-102 |
| | | with sink on left | | 50-150-103 |
| | | with sink on right | | 50-150-104 |
| | | with double sink | | 50-150-105 |
| ● | **Lab Tech 180** | with containment lip | 1800x750x2230 mm | 50-180-101 |
| | | without containment lip | | 50-180-102 |
| | | with sink on left | | 50-180-103 |
| | | with sink on right | | 50-180-104 |
| | | with double sink | | 50-180-105 |

### Components supplied as standard and optional accessories

| PRODUCT | CODE |
|---|---|
| Solvent filter | 50-F018 |
| Synthetic fiber pre-filter | 50-F007 |
| HEPA filter | 50-F005 |
| UV lamp with programmable automatic switch-off and roller blind | 50-500-057 |
| Replacement lamp for UV system | 50-500-070 |


## Bench Tech benchtop fume hood

Laboratory fume hood with extraction from top and front, to be used for manual staining, slide mounting or as an area for liquid transfer.
It is suitable for any laboratory benches.

- **Characteristics**

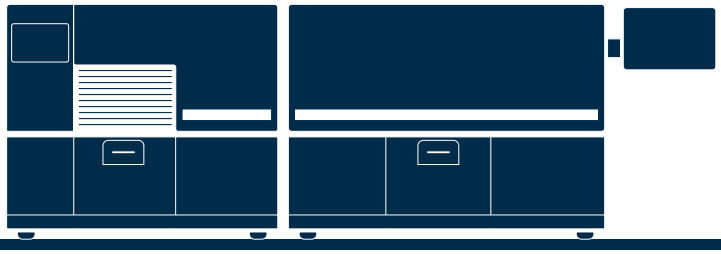
| | |
|---|---|
| Extractor system: | 1 three-phase spark-proof adjustable electric extractor fan |
| Lighting: | 2 LED tubes, total 1500 lux |
| Control panel: | touch-screen monitor for the control and display of all functions |

| PRODUCT | DIMENSIONS | CODE |
|---|---|---|
| Benchtop fume hood 90 | 900 x 750 x 1340 mm | 50-090-201 |
| Benchtop fume hood 130 | 1300 x 750 x 1340 mm | 50-130-201 |
| Benchtop fume hood 150 | 1500 x 750 x 1340 mm | 50-150-201 |

**Filters**

The filters are easy to change thanks to the handy Bio-Optica system with removable front panel. This system is used in all Bio-Optica fume hoods (Lab Tech, Trimming Tech, Bench Tech).

| PRODUCT | CODE |
|---|---|
| HEPA filter | 50-F005 |
| Alcohol and xylene filter | 50-F004 |
| Formalin filter | 50-F003 |



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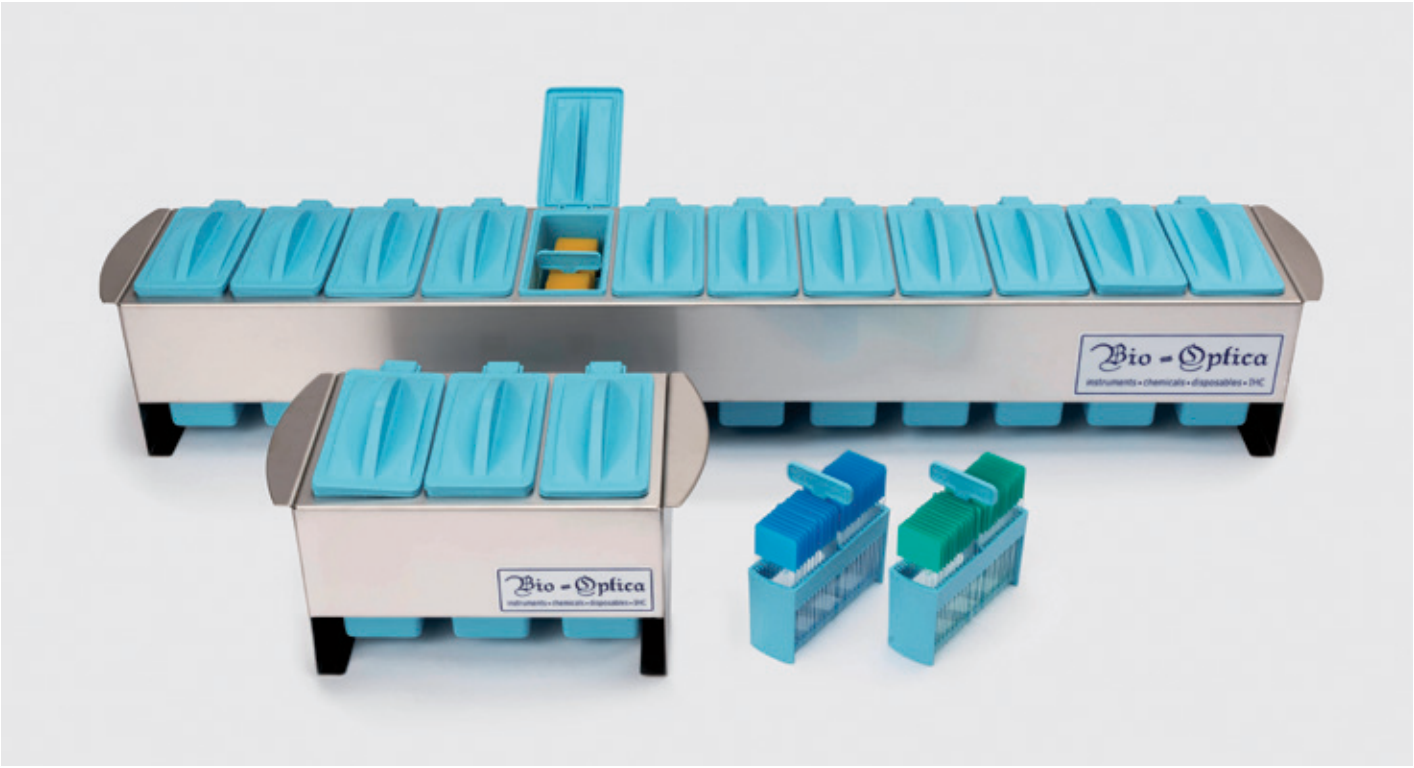
## Manual staining set

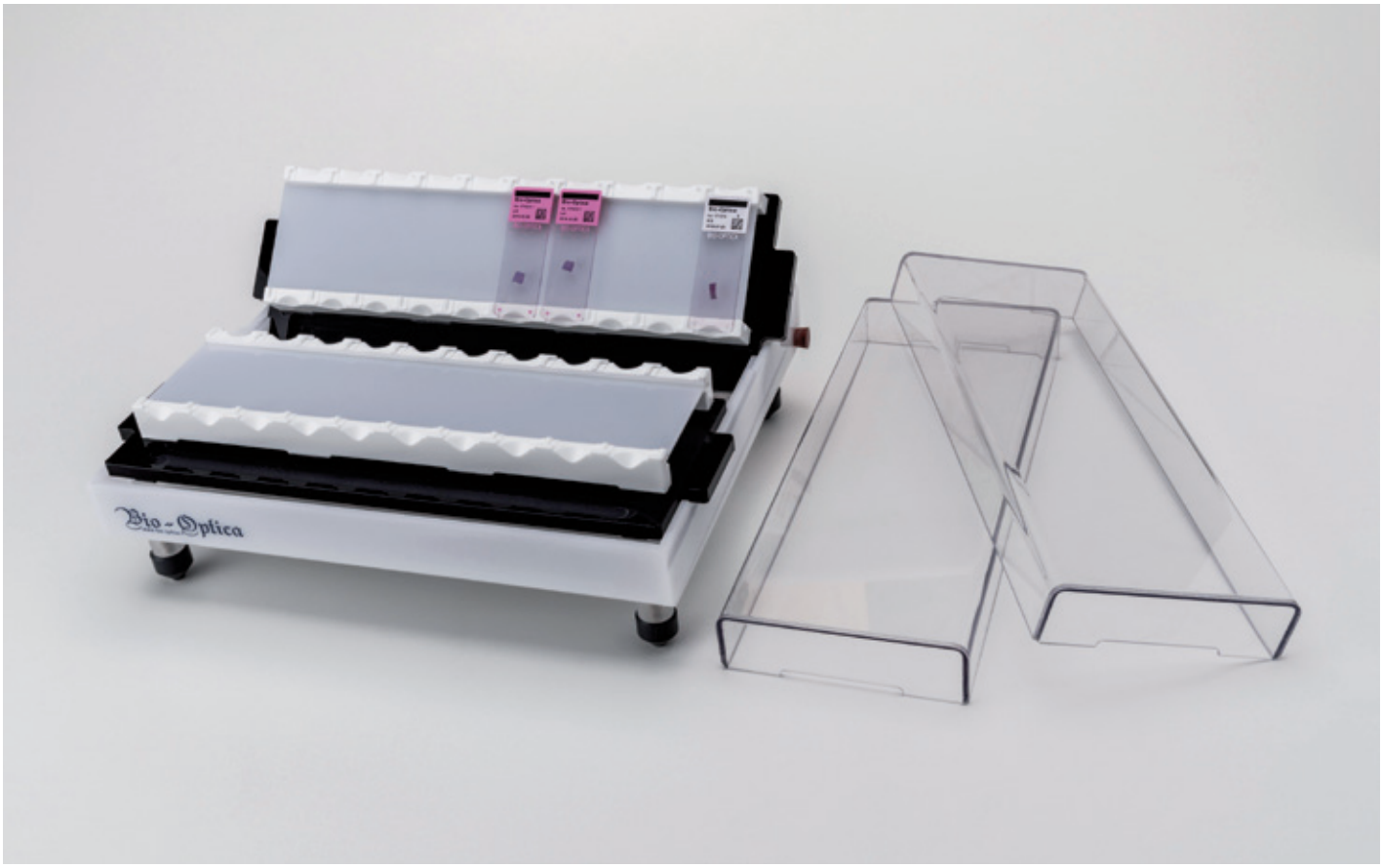
The simplest and most economical cyto-histological staining system, made of thermoplastic resin: the 10-10 manual staining set consists of twelve dishes with lid (capacity 300 ml) in a steel structure and a slide-rack for twenty-five slides.
The hematology version consists of just three dishes with lid and one slide-rack.
The dishes and rack are resistant to solvents and high temperatures (up to 170°C) and can be used in microwave ovens.

| PRODUCT | No. OF DISHES | CODE |
|---|---|---|
| Hematology set | 3 | 10-20 |
| Staining set | 12 | 10-10 |

### PARTS AND ACCESSORIES

| PRODUCT | PACK | CODE |
|---|---|---|
| Dish with lid attached | 12 pcs. | 10-30 |
| Dish with separate lid (for old model set) | 12 pcs. | 10-33 |
| Rack for 25 slides with plastic handle | 6 pcs. | 10-42 |

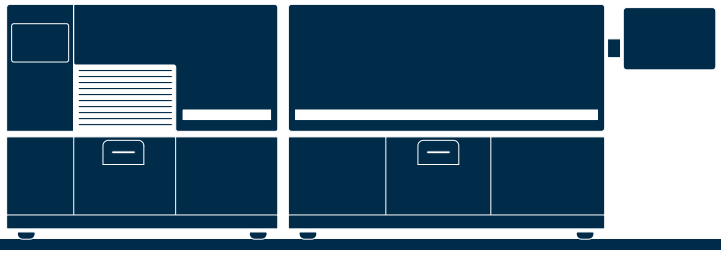





## Slide master for special and immunohistochemistry staining

Slide Master is the ideal manual stainer for special and immunohistochemistry staining of 20 slides.
It is possible to create a humid chamber with the lid for the slides incubation in horizontal position.
The two tilting racks allow to wash slides in vertical position with special water storage system.
The adjustable feet and spirit level help keep the work surface totally horizontal.

| DIMENSIONS | CODE |
|---|---|
| 32 x 26 x 11 (L x W x H) cm | 15-MEQ001 |

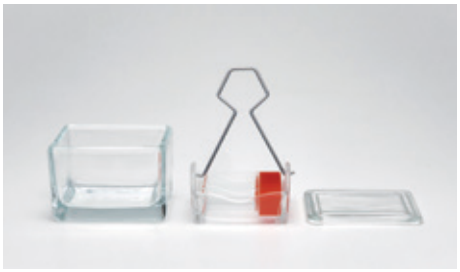


Bio-Optica

## Plastic staining set

Heat-resistant dish up to 120°C, equipped with 2 lids, one for total closure, one with a slot for inserting the rack during staining.

| PRODUCT | PACK | CODE |
|---|---|---|
| TPX dish (dim. 81x101x70 mm) | 4 pcs. | 44-13091 |
| Rack for 20 slides | 2 pcs. | 44-13092 |



## Glass staining set

| PRODUCT | CODE |
|---|---|
| Complete Set | 10-2000 |
| Dish with lid (dim. 81 x 101 x 70 mm) and rack | 10-1820 |
| Rack for 20 slides | 10-1910 |
| Replacement forceps for rack 10-1910 | 10-2010 |

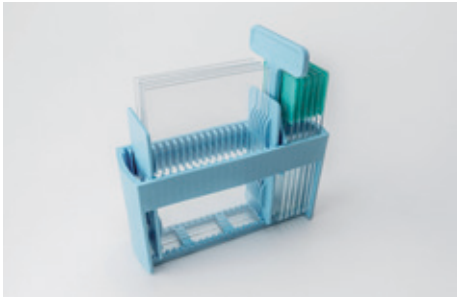
## Staining jars

| PRODUCT | PACK | CODE |
|---|---|---|
| Glass Hellendahl jar | 1 pc. | 10-1410 |
| TPX Hellendahl jar | 4 pcs. | 44-13101 |
| Glass Coplin jar | 1 pc. | 10-1710 |
| Glass Schifferdecker jar | 1 pc. | 10-1610 |
| TPX Schifferdecker jar | 1 pc. | 44-13111 |


## Timer

Solvent-resistant laboratory timer.

| MODEL | PACK | CODE |
|---|---|---|
| Clip | 1 pc. | 44-10851 |
| One hand | 1 pc. | 44-10852 |
| Electronic | 1 pc. | 44-10853 |
| Digital electronic | 1 pc. | 44-06057A000 |

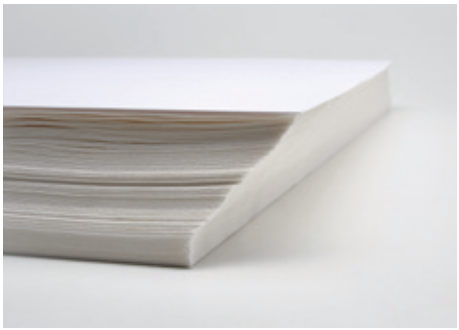


## Slide adapter for large samples

For use in conjunction with racks for automatic and manual stainers for staining slides with large samples together with standard slides.

| PRODUCT | PACK | CODE |
|---|---|---|
| Slide adapter for large samples | 2 pcs. | 20-E103/SL/R30A |

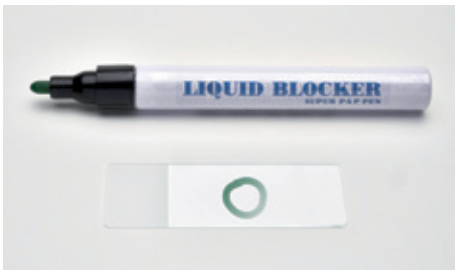
## Bench surface protection paper



Bench surface protection paper for all laboratory requirements.

| PRODUCT | DIMENSIONS | PACK | CODE |
|---|---|---|---|
| Plastic-coated paper | 48 x 60 cm | 100 pcs. | 08-CA2000 |
| Filter paper | 50 x 50 cm | 500 pcs. | 08-656 |

## Pap Pen




Deposits a waxy water-repellent film on slides to outline the staining area.

| PRODUCT | TIP DIAMETER | PACK | CODE |
|---|---|---|---|
| Liquid Blocker | 5 mm | 1 pc. | 11-100 |
| Liquid Blocker Mini | 2 mm | 1 pc. | 11-100M |

## Histology pen


Pen with special permanent ink that remains color-fast during processing to ensure reliable identification of preparations.
Writes on glass, metal, porcelain and plastic.

| COLOR | PACK | CODE |
|---|---|---|
| Black | 12 pcs. | 11-50 |

## Tube Checker

Special ink pens for permanent marking of embedding cassettes.
The ink is resistant to alcohol and xylene.
The pens are equipped with two tips, one fine and one broad.

| COLOR | PACK | CODE |
|---|---|---|
| Black | 1 pc. | 11-400 |

## Pen with diamond tip

For permanent engraving of slides.

| PRODUCT | PACK | CODE |
|---|---|---|
| With hexagonal aluminum handle | 1 pc. | 08-DS2F |


09-1040
lot. 171215
HEA
2018-05-31
BIO-OPTICA
_Accession_
Patient
Tissue
2019-01-03
Bio-Optica
09-1020
LIV
2018-11-15
_Accession_
Patient
Tissue
2018-03-06
_Accession_
Patient
Tissue
2019-01-03
Bio-Optica
09-1020
LIV
2018-11-15

## Microscope slides

Cleaned, degreased, high-quality, original Bio-Optica microscope slides; cellophane-wrapped and free from dust, dirt and cracks.
Resistant to enzyme treatments and microwaves (750-800 Watts).
Dimensions: 25.5 x 75.5 mm.
SLIDES OF SPECIFIC DIMENSIONS ARE AVAILABLE TO ORDER.

| | EDGE | BAND | PACK | CODE |
|---|---|---|---|---|
| ● | Cut | Frosted | 2500 pcs. | 09-1000TB |
| ● | Ground 90°- beveled corners 45° | Neutral | 2500 pcs. | 09-1000M |
| ● | Ground 90°- beveled corners 45° | Frosted | 2500 pcs. | 09-1000MB |
| ● | Ground 90°- beveled corners 45° | Pink | 2500 pcs. | 09-1000 |
| ● | Ground 90°- beveled corners 45° | Blue | 2500 pcs. | 09-1010 |
| ● | Ground 90°- beveled corners 45° | Green | 2500 pcs. | 09-1020 |
| ● | Ground 90°- beveled corners 45° | White | 2500 pcs. | 09-1030 |
| ● | Ground 90°- beveled corners 45° | Yellow | 2500 pcs. | 09-1040 |
| ● | Ground 90°- beveled corners 45° | Orange | 2500 pcs. | 09-1050 |
| ● | Ground 90°- beveled corners 45° positively charged | White | 72 pcs. | 09-3000 |


## COMPATIBILITY WITH COMMERCIALLY AVAILABLE WRITING SYSTEMS

| CODE | HANDWRITING | PRIMERA PRINTER | THERMO PRINTERS | LEICA PRINTER |
|---|---|---|---|---|
| 09-1000MB | V | X | X | X |
| 09-1000 | V | V | V | X |
| 09-1010 | V | V | V | X |
| 09-1020 | V | V | V | X |
| 09-1030 | V | V | V | X |
| 09-1040 | V | V | V | X |
| 09-1050 | V | V | V | X |
| 09-3000 | V | V | V | X |

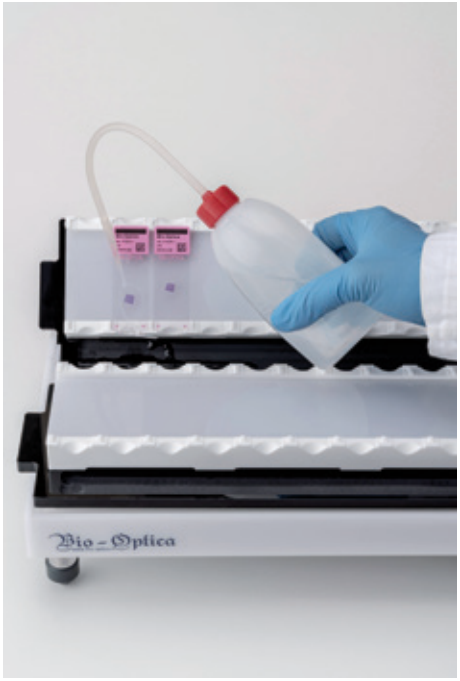
## Manual staining kit

Bio-Optica staining kits have earned ever wider acclaim in Italy and throughout the World for a number of specific reasons, including:

- Quick and easy to use
- Reproducible results
- Predictable cost
- User safety
- Limited environmental impact

Nevertheless, Bio-Optica is committed to continuous improvement of its products and their protocols for use, thanks in part to feedback from our customers, which help us uphold the highest standards of quality for our products.

## GENERAL WARNINGS




For best results, please read the following guidelines.

**Minimum number of tests that can be performed**

The number of tests is calculated by assuming reagent consumption of 10 drops per test, which is more than sufficient to cover even medium-large sections. If you wish to use a smaller number of drops when working with small samples, you must reduce the quantity of each reagent in the same proportion in order to avoid imbalances.

**Completion time**

The completion time is calculated according to the duration of the individual steps of which the method consists. It does not include the time taken for de-waxing, hydrating and dehydrating the section.

**Essential basic equipment**

To complete the kit, you will need the following essential basic equipment:

- Slide Master, code 15-MEQ0001, for horizontal slide staining
- Spray bottle containing distilled water to perform the steps required by the protocol
- Two series of solvents:
  descending for de-waxing the sections and bringing them to the water and ascending to dehydrate and diaphanize the section before mounting with coverglass.

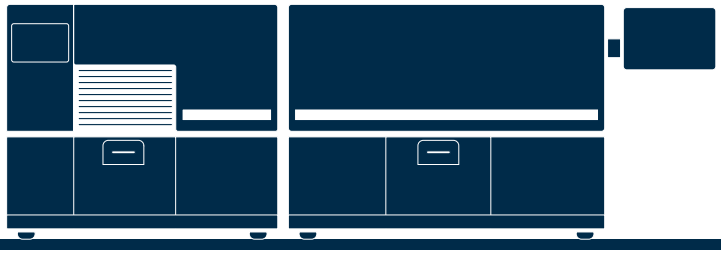
We recommend the use of BioMount HM (codes 05-BMHM100 or 05-BMHM508) as the mounting medium.


**Additional equipment**

The individual instructions indicate which equipment not included in the kit, but usually available in the laboratory, is necessary to complete the kit.

**Fixatives and embedding media**

The protocol times were determined on histological sections of fragments fixed in formalin buffered to pH 7 with phosphate buffer and subsequently embedded in paraffin.



Bio-Optica

## Afog

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Afog Acid Fuchsin Orange G** | 04-021002 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 22 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

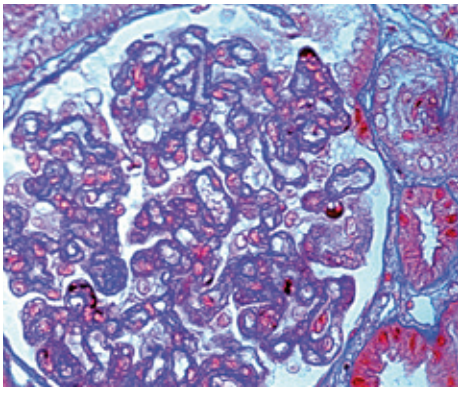
Reference method for highlighting protein deposits in renal biopsy.
Recommended fixative: Bouin.

### Method

- 1) Bring the section to the distilled water.
- 2) Dispense 5 drops of reagent A and 5 drops of reagent B onto the section: leave to act for 10 minutes.
- 3) Tap water for 5 minutes.
- 4) Dispense 10 drops of reagent C onto the section: leave to act for 5 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of reagent D onto the section: leave to act for 5 minutes.
- 7) Wash in distilled water.
- 8) Dehydrate rapidly by means of the ascending series of alcohols, stopping for 1 minute in the last absolute; xylene and balsam.

KIDNEY

### Results



| **Result** | |
|---|---|
| Collagen fibrils | blue |
| Nuclei | black |
| Erythrocytes, cytoplasm | pink - orange |
| Elastic fibers | pale pink - yellow or colorless |
| Protein deposits | bright red |

# AgNOR

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **AgNOR** | 04-045801 |

| | |
|---|---|
| Minimum number of tests that can be performed | 12 preparations (up to 4 slides per preparation) |
| Completion time | 30 minutes |
| Shelf life | 1 year |
| Storage conditions | 15-25 °C |
| Additional equipment | glass rod, jars for washing in distilled water |

## Application

Method for highlighting argentaffin proteins (100 kD) in the nucleolus organizer region (NOR) on paraffin-embedded sections and smears.

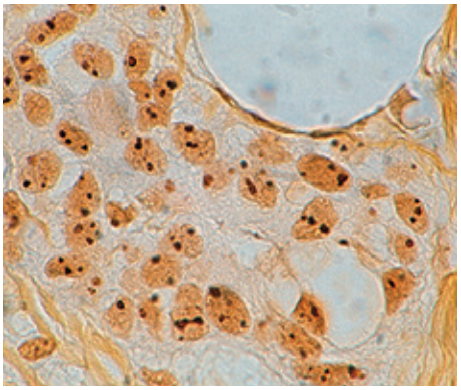
## Method

- 1) Bring the section to the distilled water.
- 2) Preparation of the work solution: place the slide container in the polystyrene stand. Pour the entire contents of bottle A and the entire contents of a bottle B into the container. Stir briefly with a glass rod previously washed in distilled water.
- 3) Place the section in the solution and incubate in the dark for 30 minutes at room temperature.
- 4) Wash thoroughly in three changes of distilled water.
- 5) Dispense 10 drops of reagent C onto the section: leave to act for 1 minute.
- 6) Wash in distilled water.
- 7) Dehydrate by means of the ascending series of alcohols, xylene and balsam.

## Results

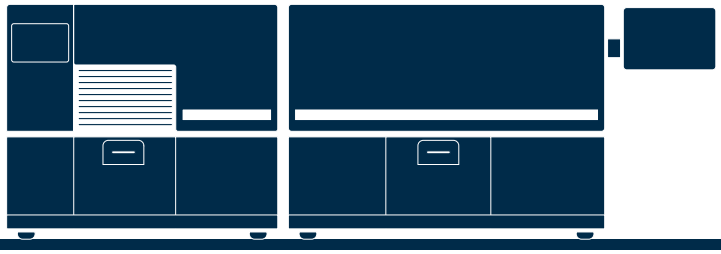
BREAST

| Result | |
|---|---|
| AgNOR, argentaffin granules | black |



## WARNINGS

- For washing, it is imperative to use top-quality distilled water.
- Do not use Poly-L-Lysine coated slides.
- Do not use metal objects (racks, forceps).
- After mounting, keep the slides in the dark.



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# Alcian Blue pH 0.5

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Alcian Blue pH 0.5** | 04-165812 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 50 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

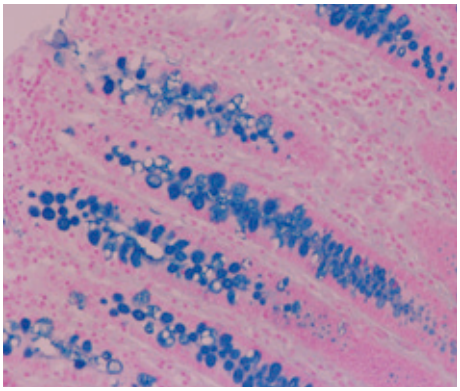
Method indicated for highlighting strongly sulfated mucins.

## Method

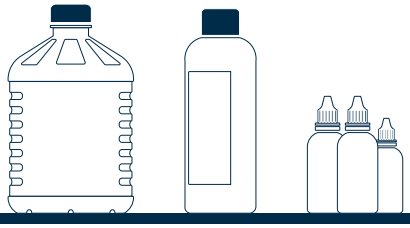
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 3 minutes.
- 3) Without washing, drain the slide and dispense 10 drops of reagent B onto the section: leave to act for 30 minutes.
- 4) Without washing, drain the slide and dispense 10 drops of reagent C onto the section: leave to act for 10 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of reagent D onto the section: leave to act for 5 minutes.
- 7) Wash in distilled water.
- 8) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

INTESTINE

## Results



| **Result** | |
|---|---|
| Strongly sulfated mucins | blue |
| Nuclei | red |





# Alcian Blue pH 1

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Alcian Blue pH 1.0** | 04-166802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 50 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

Method indicated for highlighting acid mucopolysaccharides on tissue sections.

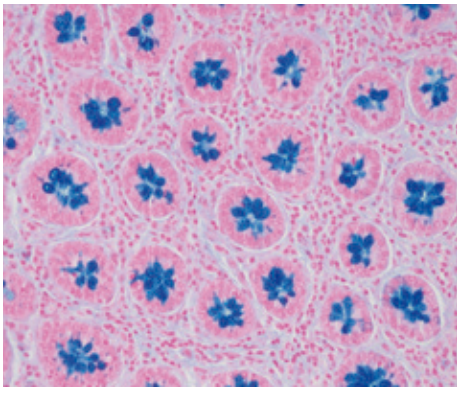
## Method

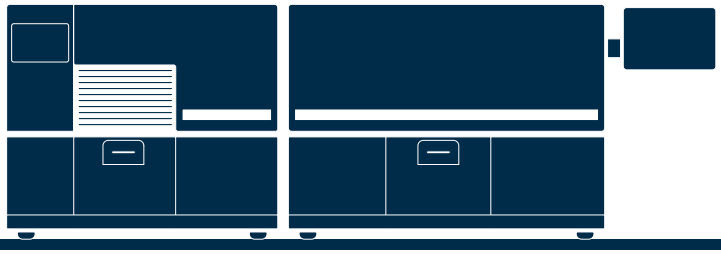
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 30 minutes.
- 3) Without washing, drain the slide and dispense 10 drops of reagent B onto the section: leave to act for 10 minutes.
- 4) Wash in distilled water.
- 5) Dispense 10 drops of reagent C onto the slide: leave to act for 5 minutes.
- 6) Wash in distilled water.
- 7) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

## Results

COLON

| **Result** | |
|---|---|
| Acid mucopolysaccharides | blue - turquoise |
| Nuclei | red |





Bio - Optica

## Alcian Blue pH 2.5

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Alcian Blue pH 2.5** | 04-160802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 50 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

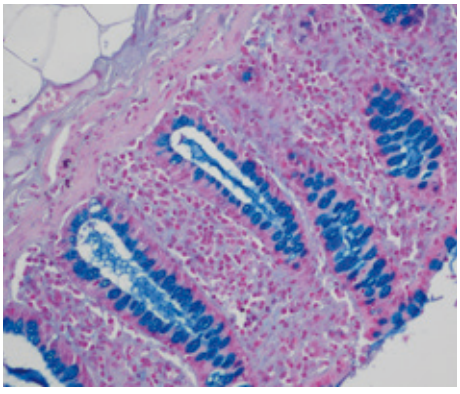
Method indicated for highlighting acid mucopolysaccharides on tissue sections.

### Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 30 minutes.
- 3) Without washing, drain the slide and dispense 10 drops of reagent B onto the section: leave to act for 10 minutes.
- 4) Wash in distilled water.
- 5) Dispense 10 drops of reagent C onto the slide: leave to act for 5 minutes.
- 6) Wash in distilled water.
- 7) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

INTESTINE

### Results



| **Result** | |
|---|---|
| Acid mucopolysaccharides | blue - turquoise |
| Nuclei | red |

# Alcian Blue pH 2.5 - pH 1

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Alcian Blue pH 2.5 - pH 1** | 04-161802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 50 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

Method indicated for highlighting and differentiating acid mucopolysaccharides on tissue sections.
In order to distinguish sulfated mucins from weakly sulfated mucins, hyaluronic acid and sialomucins, the method requires the use of 2 serial sections.
By treating the first with Alcian Blue pH 2.5 and the next with Alcian Blue pH 1 and then comparing the preparations, it is possible to differentiate the weakly sulfated mucins from sulfated mucins, hyaluronic acid and sialomucins.

## Method

METHOD FOR PH 2.5

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 30 minutes.
- 3) Without washing, drain the slide and dispense 10 drops of reagent B onto the section: leave to act for 10 minutes.
- 4) Wash in distilled water.
- 5) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

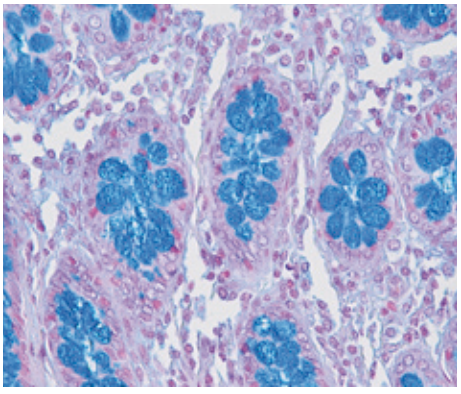
METHOD FOR PH 1.0

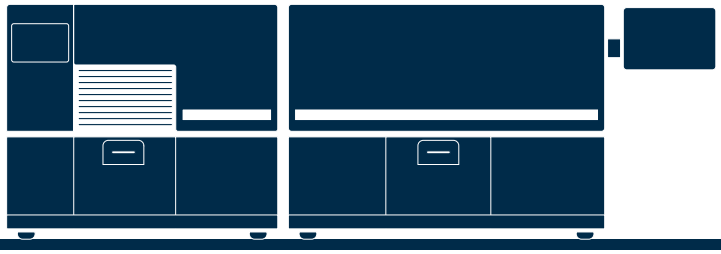
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent C onto the section: leave to act for 30 minutes.
- 3) Without washing, drain the slide and dispense 10 drops of reagent D onto the section: leave to act for 10 minutes.
- 4) Wash in distilled water.
- 5) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

| **Result** | |
|---|---|
| Acid mucopolysaccharides | blue - turquoise |

## Results

COLON





Bio-Optica

## Alcian Blue pH 2.5 P.A.S.

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Alcian Blue pH 2,5 PAS** | 04-163802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 1 hour 25 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Not required |

### Application

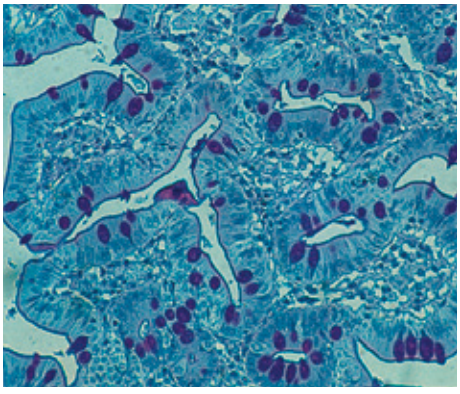
Combined method for differentiating acid mucins, neutral mucins and carbohydrates on tissue sections.

### Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 30 minutes.
- 3) Without washing, drain the slide and dispense 15 drops of reagent B onto the section: leave to act for 10 minutes.
- 4) Wash for 5 minutes in tap water and for 2 minutes in distilled water.
- 5) Dispense 10 drops of reagent C onto the section: leave to act for 10 minutes.
- 6) Wash in distilled water.
- 7) Dispense 10 drops of reagent D onto the section: leave to act for 20 minutes.
- 8) Wash in distilled water.
- 9) Dispense 10 drops of reagent E onto the section: leave to act for 2 minutes.
- 10) Without washing, drain the slide and dispense 10 drops of reagent F onto the section: leave to act for 3 minutes.
- 11) Wash in distilled water.
- 12) Dispense 10 drops of reagent G onto the section: leave to act for 2 minutes.
- 13) Leave to develop in running tap water for 5 minutes.
- 14) Dehydrate in the ascending series of alcohols; xylene and balsam.

INTESTINE

### Results



| **Result** | |
|---|---|
| PAS-positive substances | magenta red |
| Acid mucopolysaccharides | blue - turquoise |
| Certain acid mucins and cartilage | from purple to dark blue |

## Alcian Yellow - Toluidine blue

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Alcian Yellow - Toluidine blue for Helicobacter pylori** | 04-169812 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 25 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

Combined method for highlighting Helicobacter pylori and epithelial mucins on sections of gastric tissue; recommended section thickness 5 microns.

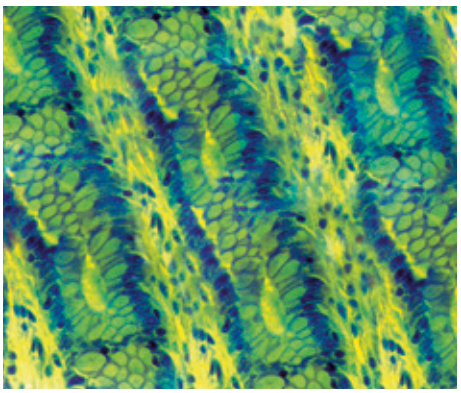
### Method

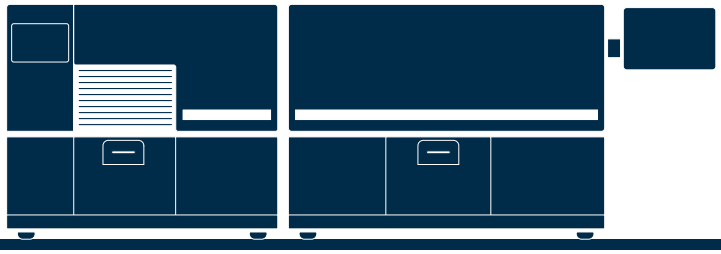
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash thoroughly in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 5 minutes.
- 5) Wash in tap water for 2 minutes.
- 6) Dispense 10 drops of reagent C onto the slide: leave to act for 5 minutes.
- 7) Wash thoroughly in distilled water.
- 8) Dispense 8 drops of reagent D and 2 drops of reagent E onto the section: leave to act for 3 minutes.
- 9) Wash thoroughly in distilled water.
- 10) Dry in air.
- 11) Dehydrate in alcohol; xylene and balsam.

### Results

INTESTINE

| **Result** | |
|---|---|
| Helicobacter pylori | blue |
| Mucins | yellow |
| Background | blue |





Bio-Optica

# Amylase - Enzymatic digestion

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Amylase - enzymatic digestion** | 04-140808 |

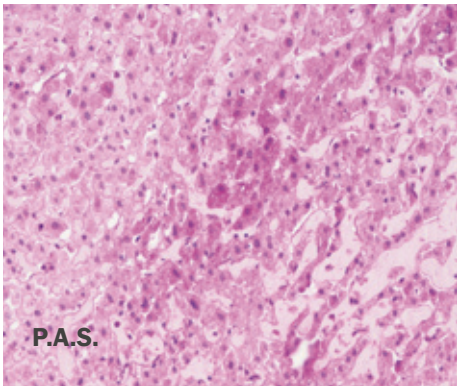
| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 10 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Vertical jar |

## Application

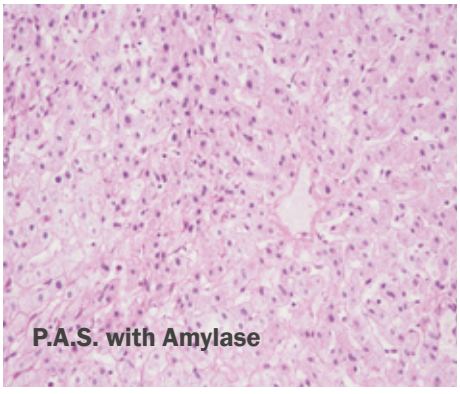
Removal of glycogen from
- Hepatic tissue, paraffin-embedded sections: digestion on a histological section with a solution of amylase is indicated when you want to remove the glycogen so as to observe only the neutral epithelial mucins. It is the method of choice in liver biopsy.
- Muscle tissue: the examination of adjacent cryostat sections, one of which has been treated with amylase, allows qualitative evaluation of the presence of glycogen.

## Results

LIVER




LIVER




## Method

- 1) Bring the section to the distilled water.
- 2) Bring the amylase solution to room temperature.
- 3) Cover the section with the amylase solution: leave to act for 10 minutes at room temperature.
- 4) Wash the slide several times in distilled water.
- 5) Proceed with the PAS reaction in the normal manner.

**Result**
The removal of glycogen can be detected, after PAS reaction, by comparing the sample section with an adjacent section of the same preparation that has not been treated with amylase.

# Azan Trichrome

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Azan Trichrome** | 04-001802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 1 hour 40 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Vertical histology jar, oven |

## Application

The method of choice for connective tissue, particularly indicated for muscle and glial fiber, collagen, reticulum, glomerular stroma of the kidney, erythrocytes and nuclear chromatin on histological sections.

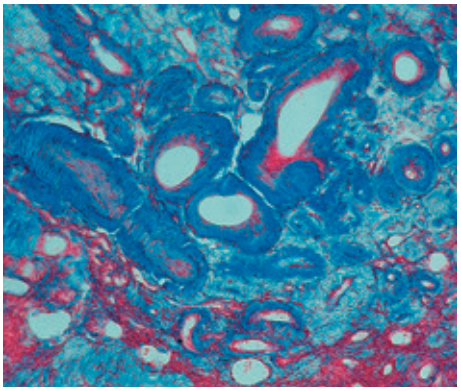
## Method

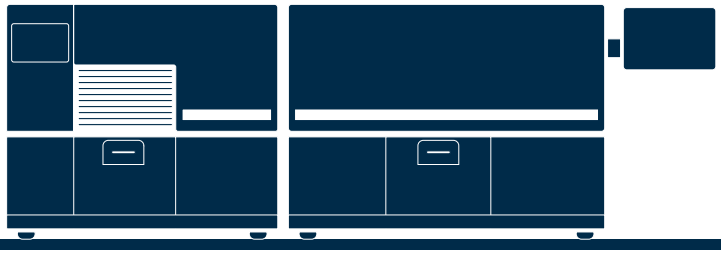
- 1) Bring the section to the distilled water.
- 2) Incubate the section in reagent A in an oven at 56 °C for 30 minutes, then remove from the oven and wait for 5 minutes. Retrieve the stain and transfer it to bottle A without filtering it.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 1 minute.
- 5) Drain on filter paper, then dispense 10 drops of reagent C onto the section: leave to act for 1 minute.
- 6) Drain on filter paper, then dispense 10 drops of reagent D onto the section: leave to act for 30 minutes.
- 7) Drain on filter paper and without washing, dispense 10 drops of reagent E onto the section: leave to act for 30 minutes.
- 8) Wash quickly in 95 ° ethanol. Dehydrate in the ascending series of alcohols; xylene and balsam.

## Results

OVARY

| **Result** | |
|---|---|
| Collagen, reticulum, basophilic cytoplasmic granules of the pituitary gland, juxtaglomerular granules and glomerular stroma of the kidney | blue |
| Neurofibrils (glia) | reddish |
| Muscle | orange |
| Nuclei, erythrocytes and acidophilic granules of the pituitary gland | red |
| Cytoplasmic granules of the delta cells of the pituitary gland | blue |





Bio - Optica

## Bielschowsky

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Bielschowsky for neurofibrils** | 04-040805 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 45 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8 °C |
| Additional equipment | oven, 50 ml Coplin jar, glass rod |

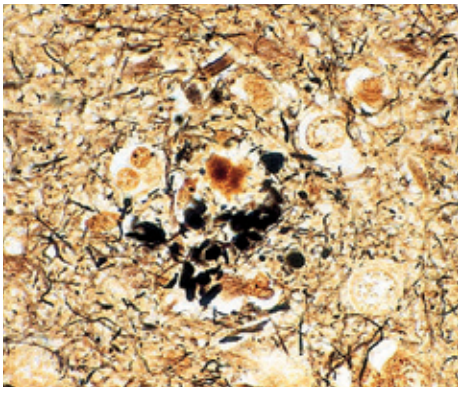
### Application

The method of choice for viewing neurofibrils, axons, dendrites and senile plaques. Usable on sections fixed in 10% formalin and embedded in paraffin, having a thickness of 8 – 10 µm.

### Method

- 1) Bring the section to the distilled water.
- 2) Place the slide in a humid chamber, dispense 10 drops of reagent A onto the section; close the lid and incubate in the oven at 40 °C for 15 minutes.
- 3) Remove the slide from the humid chamber and wash the section thoroughly in distilled water.
- 4) Return the slide to the humid chamber and dispense 10 drops of reagent B onto the section: close the lid and incubate in the oven at 50/55 °C for 20 minutes. During this incubation period, prepare the reducing solution as follows: dispense 50 ml of distilled water into a Coplin jar and add 20 drops of reagent C, 8 drops of reagent D, 8 drops of reagent E and 8 drops of reagent F.
  Stir briefly with a glass rod.
- 5) Without washing, drain the slide and place it in the reducing solution: leave to act for 1-2 minutes.
- 6) Wash twice in distilled water.
- 7) Dispense 10 drops of reagent G onto the section: leave to act for 3 minutes.
- 8) Wash twice in distilled water.
- 9) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

CEREBRAL CORTEX **Results**



| **Result** | |
|---|---|
| Neurofibrils and senile plaques | black |
| Background | from yellow to brown |

### WARNINGS

The success of the reaction depends on rigorous adherence to the following rules:

- Always use good-quality, totally chlorine-free distilled or deionized water.
- Use only rigorously clean glassware or plastic ware.
- Never bring metal objects (forceps etc.) into contact with the solutions.

# Brown - Brenn

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Brown - Brenn for bacteria** | 04-100807 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 8 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

Method for differentiating Gram-positive and Gram-negative bacteria on histological sections and smears.

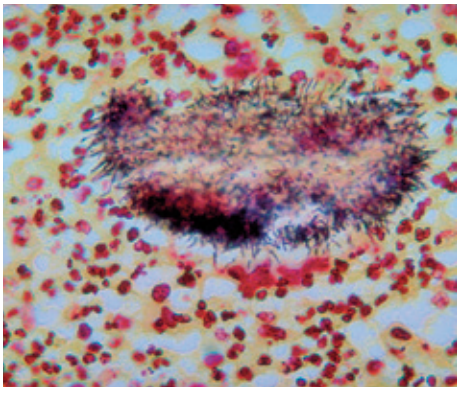
## Method

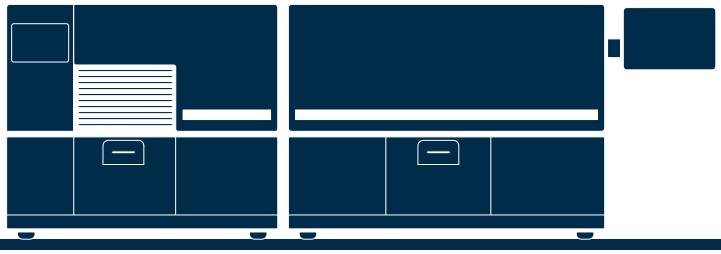
- 1) Bring the section to the distilled water.
- 2) Dispense 8 drops of reagent A and 2 drops of reagent B onto the section: leave to act for 1 minute.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent C onto the section: leave to act for 3 minutes
- 5) Wash in distilled water and dry the slide with filter paper.
- 6) Dispense 10 drops of reagent D onto the section: leave to act for 1 minute.
- 7) Drain without washing and dispense 10 drops of reagent E onto the section: leave to act for 1 minute
- 8) Wash in distilled water and dry the slide with filter paper.
- 9) Dispense 10 drops of reagent F onto the section: leave to act for 1 minute.
- 10) Drain without washing and dispense 10 drops of reagent G onto the section: leave to act for 30 seconds.
- 11) Xylene and balsam.

## Results

OVARY

| **Result** | |
|---|---|
| Gram-positive bacteria | blue |
| Gram-negative bacteria | red |
| Actinomycetes (Nocardia) | blue |
| Nuclei | red |
| Other tissue elements | yellow |





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## Dane

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Dane for keratin, modified** | 04-220822 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 40 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

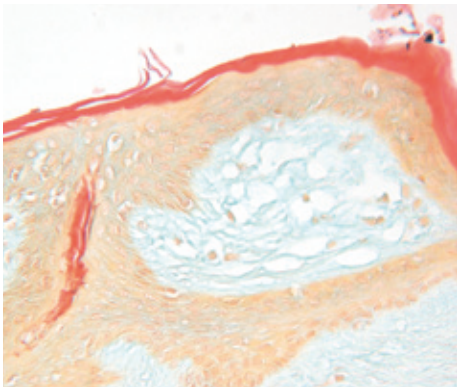
For viewing prekeratin, keratin and mucin on histological sections, therefore particularly indicated for skin pathology.

### Method

- 1) De-wax the section and bring it to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Leave to develop for 5 minutes in running tap water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 3 minutes.
- 5) Wash in tap water for 3 minutes.
- 6) Dispense 10 drops of reagent C onto the section: leave to act for 5 minutes.
- 7) Wash in tap water.
- 8) Dispense 10 drops of reagent D onto the section: leave to act for 13 minutes.
- 9) Wash in distilled water and dehydrate rapidly by means of the ascending series of alcohols, stopping for 1 minute in the last absolute, xylene and balsam.

SKIN

### Results



| **Result** | |
|---|---|
| Prekeratin and keratin | orange, red - orange |
| Mucins | turquoise |
| Nuclei | orange - brown |

# Diastase - Enzymatic digestion

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Diastase for enzymatic digestion** | 04-140805 |

| | |
|---|---|
| Minimum number of tests that can be performed | 40 |
| Completion time | 30 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | vertical jar |

## Application

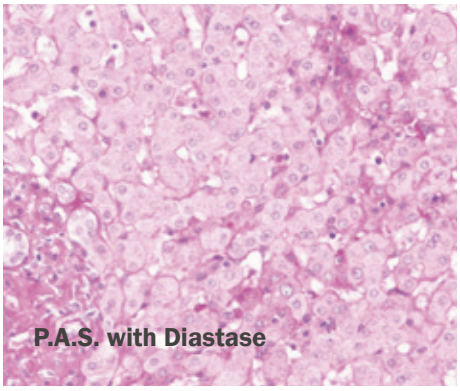
Digestion on a histological section with a solution of diastase is always indicated when you want to remove the glycogen so as to observe only the neutral epithelial mucins. It is the method of choice in liver biopsy.

## Method

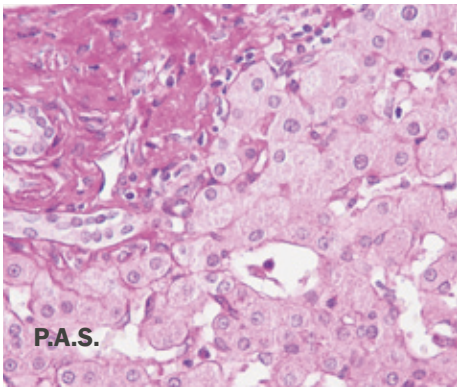
- 1) Bring the section to the distilled water.
- 2) Bring the diastase solution to room temperature.
- 3) Incubate the slide at room temperature for 30 minutes.
- 4) Wash the slide several times in distilled water.
- 5) Proceed with the PAS reaction in the normal manner.

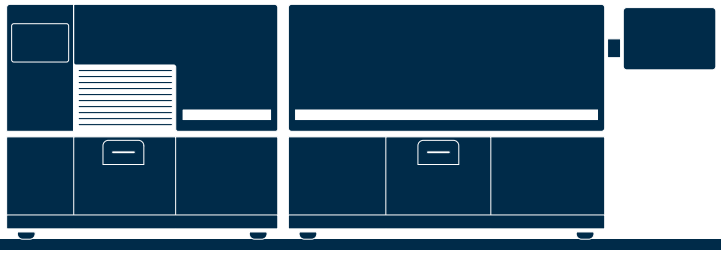
**Result**
The removal of glycogen can be detected, after PAS reaction, by comparing the sample section with an adjacent section of the same preparation that has not been treated with diastase.

**Results** LIVER




LIVER





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## Colloidal iron

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Colloidal iron, method for acid mucins** | 04-180809 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 1 hour 35 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | 50 ml vertical histology jar, graduated cylinder and glass rod |

### Application

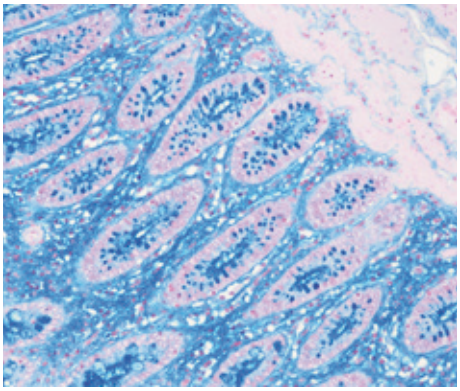
Indicated method for viewing acid mucins.
Specificity: the reaction shows acid mucins (sialomucins and sulfomucins) whose acid groups, at the reaction pH, take anionic form and are therefore capable of forming a stable complex with positive trivalent iron.

### Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 2 minutes.
- 3) Prepare the humid chamber as follows: soak the disk of filter paper with approximately 1 ml of distilled water, insert the slide and dispense 5 drops of reagent B and 5 drops of reagent C onto the section, then close the lid and incubate for 1 hour.
- 4) Without washing, drain the slide and dispense 10 drops of reagent D onto it: leave to act for 1 minute. Drain and repeat.
- 5) Without washing, drain the slide and dispense 10 drops of reagent E onto it: leave to act for 1 minute. Drain and repeat.
- 6) Drain the slide.
- 7) Prepare the potassium ferrocyanide solution as follows: pour the entire contents of a bottle F into a 50 ml Coplin jar. Add, in order, 30 ml of distilled water and 4 ml of reagent G. Stir briefly. Immerse the section for 10 minutes.
- 8) Wash thoroughly in distilled water.
- 9) Dispense 10 drops of reagent H onto the section: leave to act for 5 minutes.
- 10) Wash in distilled water.
- 11) Dehydrate in 95° and absolute ethanol; xylene and balsam.

INTESTINE

### Results



| **Result** | |
|---|---|
| Acid mucins | blue |
| Cellular nuclei | red |

# Feulgen

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Feulgen - reaction for DNA** | 04-120802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 1 hour 5 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Not required |

## Application

The method is used to highlight deoxyribonucleic acid (DNA) on tissue sections.

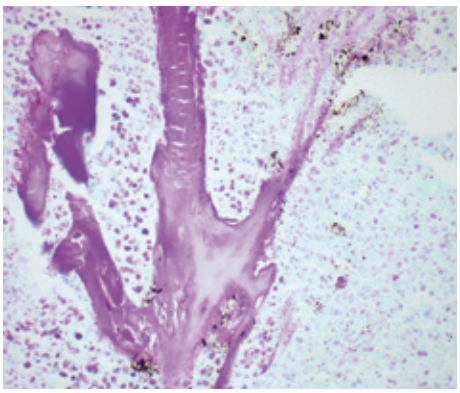
## Method

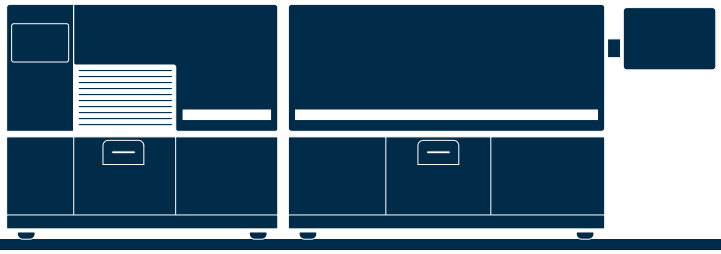
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section, leave to act for 40 minutes. CAUTION: reagent A is corrosive. Handle with care and in an environment equipped with an extractor fan. Avoid contact with the skin and eyes. Wear protective gloves and goggles.
- 3) Wash twice in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 10 minutes.
- 5) Without washing, drain the slide and dispense 10 drops of reagent C onto it: leave to act for 2 minutes.
- 6) Without washing, drain the slide and dispense 10 drops of reagent D onto it: leave to act for 3 minutes.
- 7) Wash in running tap water for 5 minutes.
- 8) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

## Results

LUNG

| **Result** | |
|---|---|
| DNA | magenta red |





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## Fouchet-Van Gieson

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Fouchet-Van Gieson for bilirubin** | 04-121872 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 35 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

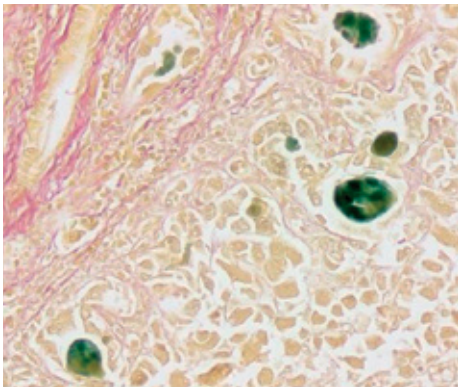
For highlighting bilirubin pigment on tissue sections.

### Method

- 1) Bring the sections to the distilled water.
- 2) Dispense 5 drops of reagent A onto the section and add 5 drops of reagent B, leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent C onto the section: leave to act for 7 minutes.
- 5) Without washing, drain the slide and dry it first in filter paper, then in the air for 5 minutes.
- 6) Absolute alcohol for 15 seconds, xylene and balsam.

BILIRUBIN DEPOSITS

### Results



| **Result** | |
|---|---|
| Bilirubin | green |
| Connective | red |
| Collagen | yellow |

# Paraldehyde Fuchsin

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Paraldehyde Fuchsin - Gomori** | 04-045872 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 1 hour 15 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

For viewing elastic fibers and secretory granules in alpha and beta cells of the islets of Langerhans of the endocrine pancreas.

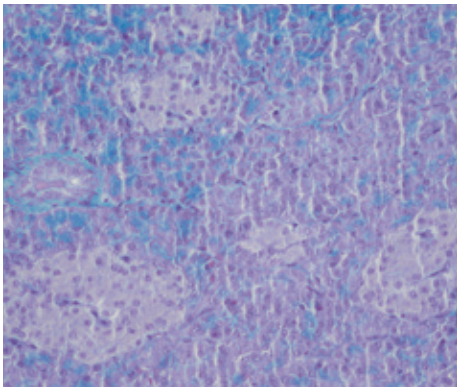
## Method

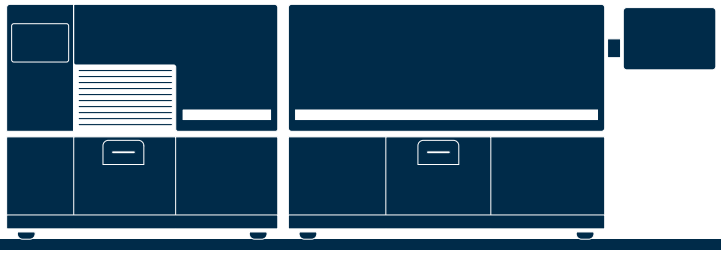
- 1) Bring the sections to the distilled water.
- 2) Dispense 5 drops of reagent A onto the section and add 5 drops of reagent B, leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent C onto the section, leave to act for 5 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of reagent D onto the section, leave to act for 5 minutes.
- 7) Without washing, drain the slide and place it in the humid chamber, then dispense 10 drops of reagent E onto the section and leave to act for 20 minutes.
- 8) Drain the slide and dispense 10 drops of reagent F onto the section, then leave to act for 10 minutes.
- 9) Wash the slide in distilled water.
- 10) Dispense 10 drops of reagent G onto the section, leave to act for 10 minutes.
- 11) Wash in distilled water.
- 12) Dispense 10 drops of reagent H onto the section, leave to act for 30 seconds.
- 13) Wash in distilled water, dehydrate in 95 and absolute alcohol, xylene and balsam.

| **Results** | |
|---|---|
| Pancreatic beta-cell granules | dark violet |
| Cellular nuclei | dark violet |
| Connective tissue | red |
| Tessuto connettivo | green |

## Results

PANCREAS





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## Giemsa

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Giemsa for Helicobacter pylori** | 04-090803 |

| | |
|---|---|
| Minimum number of tests that can be performed | 75 |
| Completion time | 1 hour |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Graduated cylinder |

### Application

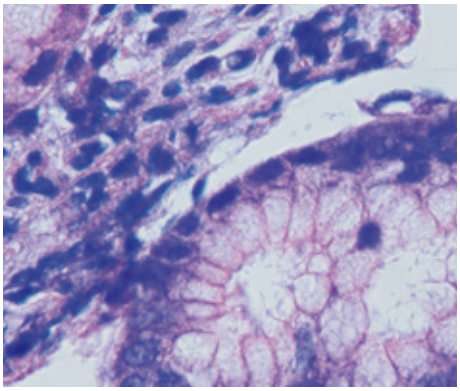
Method for viewing Helicobacter Pylori on sections from gastric biopsy.
The qualitative and quantitative composition of the stain and the accurate differentiation make it possible to identify bacteria selectively on a particularly clean background.

### Method

- 1) De-wax the sections and bring them to the water.
- 2) Prepare the buffer solution: take 5 ml of solution from bottle B and dilute in a ratio of 1:10.
  Use the solution thus obtained to prepare the working Giemsa solution.
- 3) Prepare the working Giemsa solution: take 10 ml of reagent A and top up to 40 ml with the previously prepared buffer solution.
- 4) Place the solution in the jar and immerse the sections in it for 30 minutes.
- 5) Drain and, without washing, place the section in reagent C for 15 seconds.
- 6) Repeat step 5 with reagents D and E.
- 7) Diaphanize in xylene and mount with balsam.

GASTRIC MUCOSA

### Results



| **Result** | |
|---|---|
| Helicobacter pylori | blue, in the characteristic gullwing shape |
| Nuclei | blue |
| Cytoplasm | pink |

## Gordon-Sweet

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Gordon-Sweet - for reticulum** | 04-040802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 40 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Not required |

### Application

The method of choice for viewing argyrophilic reticular fibers of connective tissue.

### Method

- 1) Bring the section to the distilled water.
- 2) Dispense 5 drops of reagent A and 5 drops of reagent B onto the section: leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent C onto the section: leave to act for 1 minutes.
- 5) Wash twice in distilled water.
- 6) Dispense 10 drops of reagent D onto the section: leave to act for 3 minutes.
- 7) Wash twice in distilled water.
- 8) Dispense 10 drops of reagent E onto the section: leave to act for 3 minutes.
- 9) Wash in distilled water.
- 10) Dispense 10 drops of reagent F onto the section: leave to act for 5 minutes.
- 11) Wash twice in distilled water.
- 12) Dispense 10 drops of reagent G onto the section: leave to act for 2 minutes.
- 13) Wash in distilled water.
- 14) Dispense 10 drops of reagent H onto the section: leave to act for 2 minutes.
- 15) Wash in distilled water.
- 16) Dispense 10 drops of reagent I onto the section: leave to act for 5 minutes.
- 17) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

| **Result** | |
|---|---|
| Reticular and nerve fibers | black |
| Nuclei | red, pink |

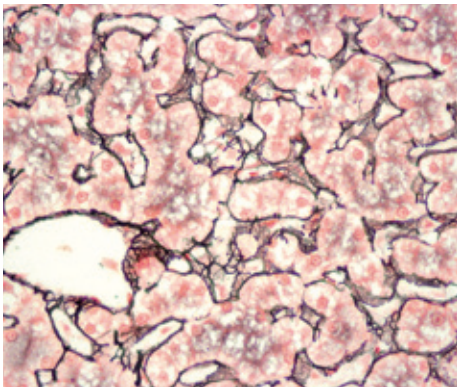
### WARNINGS

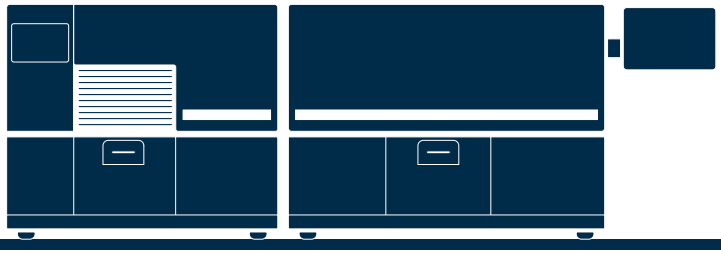
The success of the reaction depends on rigorous adherence to the following rules:

- Always use good-quality, totally chlorine-free distilled or deionized water.
- Use only rigorously clean glassware.
- Avoid depositing dust on the sections.
- Never bring metal objects (forceps etc.) into contact with the solutions.

### Results

LIVER





Bio-Optica

## Gram

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Gram for bacteria** | 04-100802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 40 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25°C |
| Additional equipment | 3 vertical glass histology jars, funnel, filter, oven |

### Application

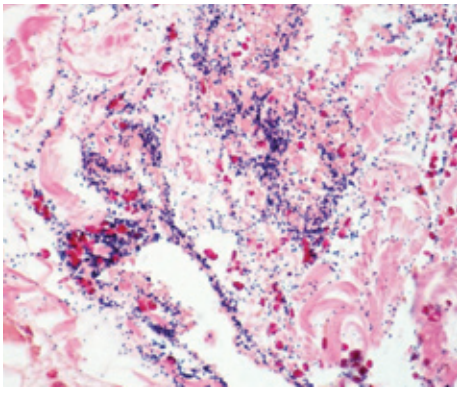
Method for differentiating Gram-positive and Gram-negative bacteria on histological sections, smears and tissue apposition.

### Method

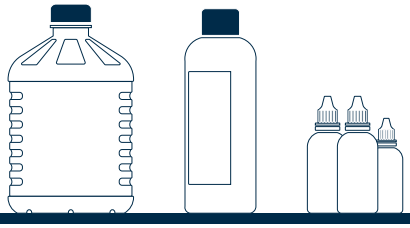
- 1) Bring the section to the distilled water.
- 2) Pour the contents of bottle A into a vertical histology jar, place the slide in it and incubate at 56-58°C for 15 minutes; retrieve the solution and transfer it to bottle A, filtering it through filter paper.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 3 minutes.
- 5) Drain the slide and, without washing it, dispense 10 drops of solution C onto it: leave to act for 3 minutes.
- 6) Wash in distilled water and dry the slide first in filter paper, then in the air for 10 minutes.
- 7) Pour the contents of bottle D into a vertical histology jar: stir the slide in it for 1 minute; retrieve the solution and transfer it to bottle D, filtering it through filter paper.
- 8) Repeat step 7 with reagent E.
- 9) Xylene and balsam.

NECROTIZING FASCIITIS

### Results



| **Result** | |
|---|---|
| Gram-positive bacteria | blue |
| Gram-negative bacteria | red |
| Nuclei | red |





## Grimelius

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Grimelius for argyrophilia** | 04-044822 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 3 hours 35 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Graduated cylinder, 50 ml histology jar, oven |

### Application

For viewing argyrophilic substances on tissue sections and appositions.

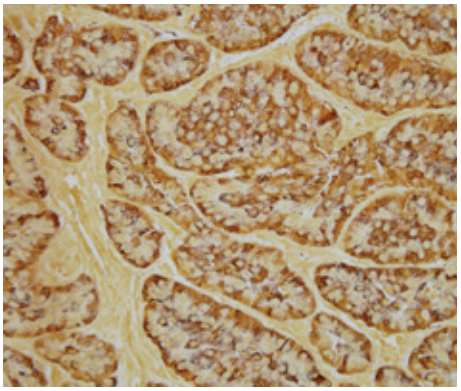
### Method

- 1) Bring the section to the distilled water.
- 2) Pour 40 ml of distilled water into a graduated cylinder, add 10 drops of reagent A and 10 drops of reagent B, pour the mixture into a 50 ml vertical histology jar and incubate the section in it for 3 hours in an oven at a temperature of 60°C.
- 3) Remove the jar from the oven and wait for 5 minutes: remove the slide, drain it and, without washing it, dispense 10 drops of reagent C and 10 drops of reagent D onto the section: leave to act for 5 minutes.
- 4) Wash in distilled water and dispense 10 drops of reagent G onto the section: leave to act for 5 minutes.
- 5) Wash the slide and dispense 10 drops of reagent E onto the section: leave to act for 10 minutes.
- 6) Without washing, drain the slide and dispense 10 drops of reagent F onto the section: leave to act for 5 minutes.
- 7) Wash the slide and dispense 10 drops of reagent G onto the section: leave to act for 5 minutes.
- 8) Wash the slide in distilled water, and dehydrate by means of the ascending series of alcohols, xylene and balsam.

### Results

OVARIAN CANCER METASTASIS

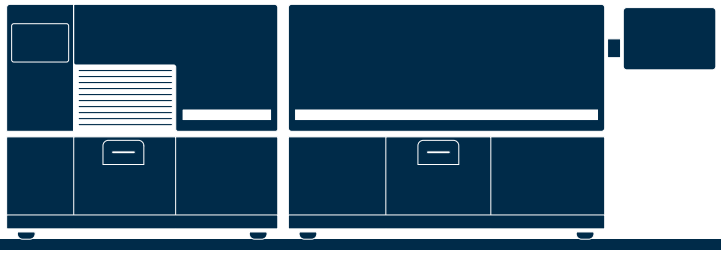
| **Result** | |
|---|---|
| Argyrophilic granules | from light brown to black |



### WARNINGS

Use only thoroughly cleaned glassware

- do not bring metal items (forceps etc.) into contact with solutions containing silver.
- use only top-quality distilled (or deionized) water.
- avoid fixatives containing salts of heavy metals.



Bio - Optica

## Grocott

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Grocott for fungi** | 04-043823 |

| | |
|---|---|
| Minimum number of tests that can be performed | 120 |
| Completion time | 1 hour 50 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8 °C |
| Additional equipment | graduated cylinder, glass rod, oven |

### Application

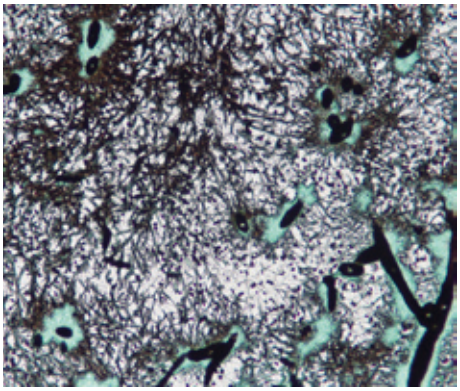
Method used for viewing fungi on a tissue section.

### Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section, leave to act for 20 minutes. Wash in running water for a few seconds.
- 3) Dispense 10 drops of reagent B onto the section: leave to act for 1 minute. Wash in tap water for 5 minutes.
- 4) Wash in four changes of distilled water.
- 5) Pour 17 ml of distilled water into a slide container and add: 20 drops of reagent C, 10 drops of reagent D, 20 drops of reagent E. Stir briefly with a glass rod washed in distilled water.
- 6) Place the slide in the container and incubate for 1 hour in an oven at 60 °C.
- 7) Remove the container from the oven and leave to cool for 10 minutes. Wash in 6 changes of distilled water.
- 8) Dispense 10 drops of reagent F onto the section; leave to act for 3 minutes. Rinse in distilled water.
- 9) Dispense 10 drops of reagent G onto the section; leave to act for 5 minutes. Wash in tap water.
- 10) Dispense 10 drops of reagent H onto the section; leave to act for 30 seconds.
- 11) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

LUNG

### Results



| Result | |
|---|---|
| Fungi | clearly outlined in black |
| Mucins | dark gray |
| Background | green |

### WARNINGS

The success of the reaction depends on rigorous adherence to the following rules:

- Avoid contaminating the section and microscope slide with non-pathogenic fungi (handle only with gloves, do not leave the preparation exposed to air).
- Always use recently distilled water.
- Use only rigorously clean glassware.
- Avoid depositing dust on the sections.
- Never bring metal objects (forceps etc.) into contact with the solutions.

## Grocott for microwave oven

| PRODUCT AND APPLICATION | | CODE |
|---|---|---|
| ● **Grocott MW for fungi** | | 04-043823W |
| Minimum number of tests that can be performed | 120 | |
| Completion time | 50 minutes | |
| Shelf life | 1 year | |
| Storage conditions | 2-8°C | |
| Additional equipment | graduated cylinder, glass rod, oven | |

### Application

Method used for viewing fungi on a tissue section.

### Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section, leave to act for 20 minutes. Wash in running water for a few seconds.
- 3) Dispense 10 drops of reagent B onto the section: leave to act for 1 minute. Wash in tap water for 5 minutes.
- 4) Wash in four changes of distilled water.
- 5) Pour 40 ml of distilled water into a 50 ml Coplin jar and add: 30 drops of reagent C, 15 drops of reagent D, 20 drops of reagent E. Stir briefly with a glass rod washed in distilled water.
- 6) Put the slides in the jar and place in a microwave oven at 500W for 1 minute.
- 7) Remove the jar from the oven and leave to cool for 5 minutes. Wash in 6 changes of distilled water.
- 8) Dispense 10 drops of reagent F onto the section; leave to act for 3 minutes. Rinse in distilled water.
- 9) Dispense 10 drops of reagent G onto the section; leave to act for 5 minutes. Wash in tap water.
- 10) Dispense 10 drops of reagent H onto the section; leave to act for 30 seconds.
- 11) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

| **Result** | |
|---|---|
| Fungi | clearly outlined in black |
| Mucins | dark gray |
| Background | green |

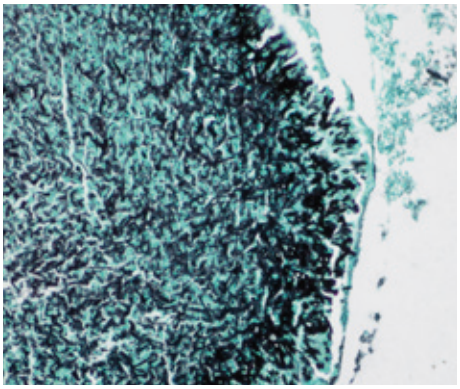
### WARNINGS

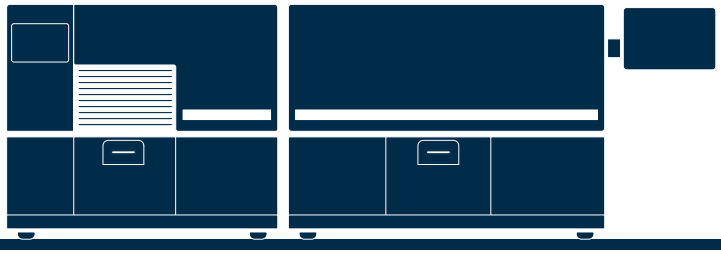
The success of the reaction depends on rigorous adherence to the following rules:

- Avoid contaminating the section and microscope slide with non-pathogenic fungi (handle only with gloves, do not leave the preparation exposed to air).
- Always use recently distilled water.
- Use only rigorously clean glassware.
- Avoid depositing dust on the sections.
- Never bring metal objects (forceps etc.) into contact with the solutions.

### Results

NASAL POLYP





Bio-Optica

# Hyaluronidase enzymatic digestion

| PRODUCT AND APPLICATION | CODE |
|---|---|
| ● **Hyaluronidase, for enzymatic digestion** | 04-150805 |

| | |
|---|---|
| Minimum number of tests that can be performed | 10 |
| Completion time | 10 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8 °C |
| Additional equipment | 100 ml vertical jar, oven |

## Application

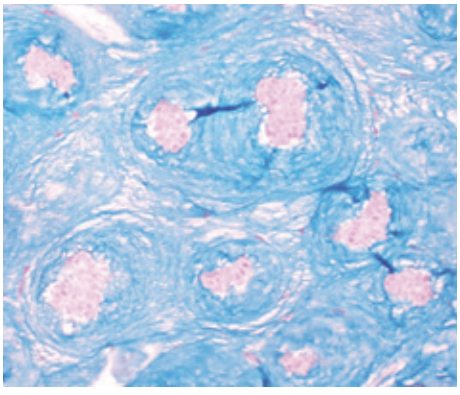
The digestion of histological sections with hyaluronidase is indicated for removing the following complex carbohydrates: hyaluronic acid and chondroitin sulfate A and B.

## Method

- 1) Bring two serial sections to the water (one sample section and one control section).
- 2) Prepare the hyaluronidase solution: pour the entire contents of bottle B into bottle A (you are advised to set aside a portion of buffer A and use it for washing bottle B after the transfer of the enzyme.) Stir vigorously until completely dissolved. Transfer the resulting solution to a vertical histology jar. Place the sample section in it.
- 3) Transfer the entire contents of bottle C to a vertical histology jar. Place the control section in it.
- 4) Incubate both sections for one hour at 37 °C.
- 5) Wash both slides in running water for 5 minutes.
- 6) Stain with Alcian Blue.

COLON

## Results



**Result**
The absence of staining with Alcian Blue detectable on the sample section is attributable to the presence of hyaluronic acid or chondroitin sulfates.

# Silver impregnation

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Silver impregnation staining for reticulum** | 04-040801 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 35 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Not required |

## Application

The method of choice for viewing argyrophilic reticular fibers of connective tissue.

## Method

- 1) Bring the section to the distilled water.
- 2) Dispense 5 drops of reagent A and 5 drops of reagent B onto the section: leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent C onto the section: leave to act for 3 minutes.
- 5) Wash twice in distilled water.
- 6) Dispense 10 drops of reagent D onto the section: leave to act for 3 minutes.
- 7) Wash twice in distilled water.
- 8) Dispense 10 drops of reagent E onto the section: leave to act for 3 minutes.
- 9) Wash in distilled water.
- 10) Dispense 10 drops of reagent F onto the section: leave to act for 5 minutes.
- 11) Wash twice in distilled water.
- 12) Dispense 10 drops of reagent G onto the section: leave to act for 5 minutes.
- 13) Wash in tap water for 5 minutes.
- 14) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

| **Result** | |
|---|---|
| Reticular and nerve fibers | black |
| Connective tissue | brown |
| Collagen | yellow |

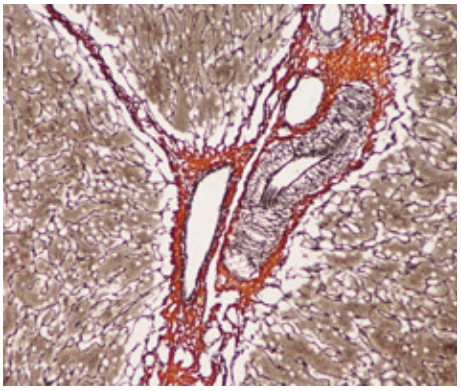
## WARNINGS

The success of the reaction depends on rigorous adherence to the following rules:

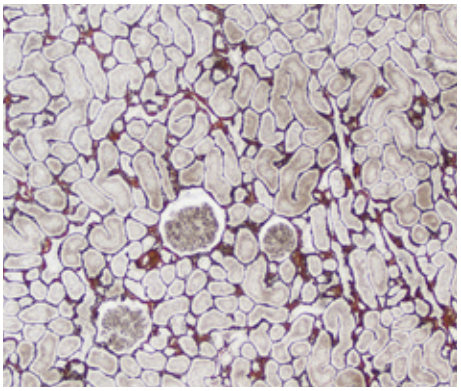
- Always use good-quality, totally chlorine-free distilled or deionized water.
- Use only rigorously clean glassware.
- Avoid depositing dust on the sections.
- Never bring metal objects (forceps etc.) into contact with the solutions.

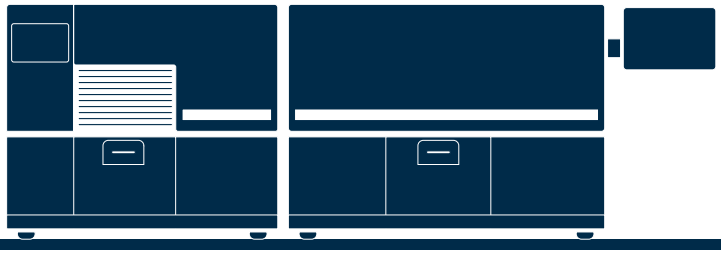
## Results

LIVER



KIDNEY





Bio-Optica

# Luxol fast blue

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Luxol fast blue, Klüver-Barrera method** | 04-200812 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 20 minutes + overnight |
| Shelf life | 2 years |
| Storage conditions | 15-25°C |
| Additional equipment | Not required |

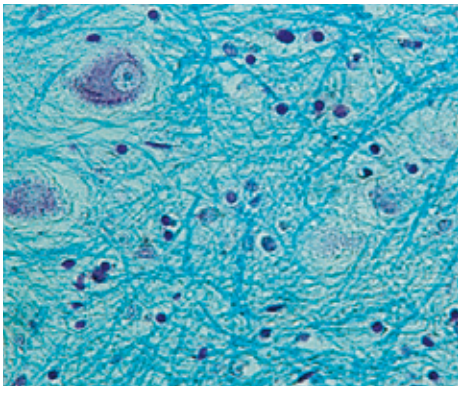
## Application

Method indicated for showing myelin and phospholipids on histological sections.

## Method

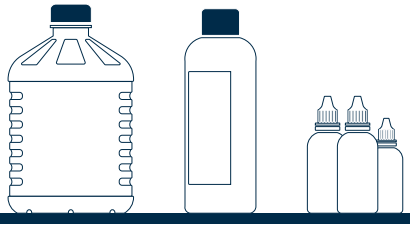
- 1) De-wax the section and bring it to the 95° ethanol.
- 2) Prepare the humid chamber by wetting the filter in the Petri dish with distilled water, place the slide in the rack and then dispense 10 drops of reagent A onto the section; close the lid of the dish immediately and incubate in an oven at 56°C overnight.
- 3) Remove the slide from the humid chamber and wash in 95° ethanol (the crystallized residues of reagent A must also dissolve).
- 4) Wash in distilled water.
- 5) Dispense 10 drops of reagent B onto the section: leave to act for 30 seconds.
- 6) Differentiate in 70° ethanol until the myelinated fibers appear in blue against an almost colorless background (if differentiation proves difficult, repeat step 5 for 30 seconds and put the preparation in 70° ethanol again).
- 7) Wash thoroughly in distilled water (at least 2 changes).
- 8) Prepare the humid chamber; dispense 10 drops of reagent C and 5 drops of reagent D onto the preparation, then incubate at 56°C for 20 minutes.
- 9) Differentiate the preparation in 95° ethanol until the Nissl substance turns pale pink.
- 10) Dehydrate in absolute ethanol; xylene and balsam.

CEREBELLUM



## Results

| **Result** | |
|---|---|
| Myelin | turquoise blue |
| Neurons and glial nuclei | from pink to violet |
| Nissl substance | pale pink |





# Mallory's Trichrome

| PRODUCT AND APPLICATION | | CODE |
|---|---|---|
| ● **Mallory's Trichrome** | | 04-020802 |
| Minimum number of tests that can be performed | 100 | |
| Completion time | 20 minutes | |
| Shelf life | 2 years | |
| Storage conditions | 15-25 °C | |
| Additional equipment | Not required | |

## Application

The standard method for viewing connective tissue on histological sections; particularly indicated for highlighting collagen, reticulum, cartilage, bone and amyloid.

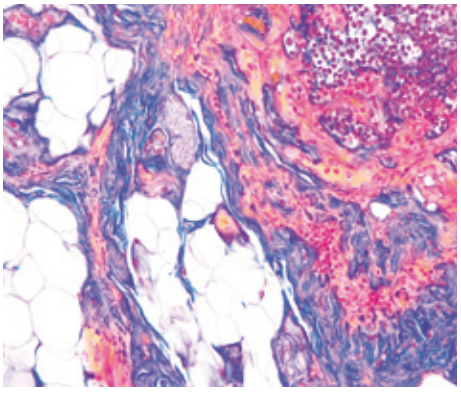
## Method

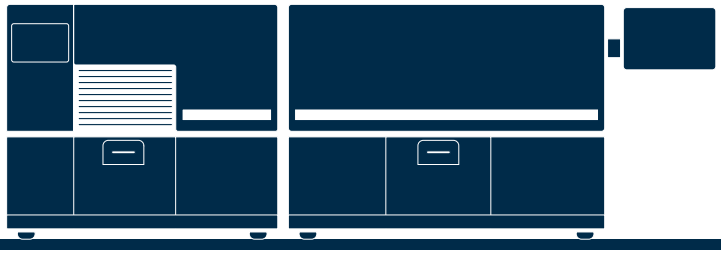
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 2 minutes.
- 5) Wash quickly in tap water (2-3 seconds) and dispense 10 drops of reagent C onto the section: leave to act for 5 minutes.
- 6) Without washing, drain the slide and dispense 10 drops of solution D onto the section: leave to act for 1 minute.
- 7) Wash in distilled water and dehydrate rapidly by means of the ascending series of alcohols, stopping for 1 minute in the last absolute, xylene and balsam.

## Results

| **Result** | |
|---|---|
| Nuclei, neurofibrils, myoglia, cartilage and bone tissue | red |
| Collagen fibrils | blue |
| Myelin | golden yellow |
| Elastic fibers | pale pink – yellow or colorless |
| Erythrocytes | yellow |

COLON





Bio-Optica

## Masson Fontana

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Masson Fontana for melanin** | 04-041822 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 45 minutes + overnight |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Not required |

### Application

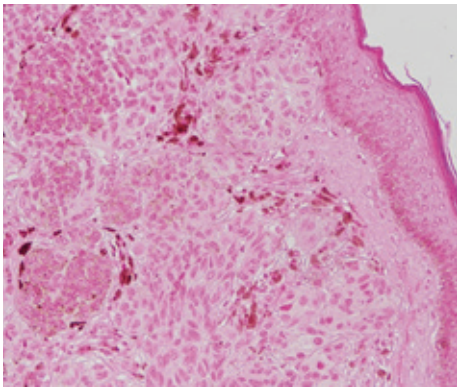
The method of choice for viewing melanin pigment on sections of histological tissue.

### Method

- 1) Bring two slides of the same preparation to distilled water.
- 2) Use one of the two slides as a control. Perform steps 3-4 on the control section only.
- 3) Dispense 10 drops of reagent B and 10 drops of reagent C onto the control slide: leave to act for 20 minutes and then wash in distilled water.
- 4) Dispense 10 drops of reagent D onto the control slide: leave to act for 5 minutes and then wash in distilled water.
- 5) Prepare the humid chamber and place the two slides (sample and control) in it, then dispense 10 drops of reagent A onto each section, close the lid of the humid chamber and leave overnight.
- 6) Wash the incubated sections in distilled water and dispense 10 drops of reagent E onto them: leave to act for 5 minutes.
- 7) Wash in distilled water.
- 8) Dispense 10 drops of reagent F onto the control slide and the sample slide: leave to act for 10 minutes.
- 9) Wash in distilled water.
- 10) Dehydrate by means of the ascending series of alcohols, xylene and balsam.

SKIN

### Results



| **Result** | |
|---|---|
| Melanin pigment | brick red - black in the section under examination; absent in the control section (the presence of black precipitate on the control section indicates a false positive) |
| Nuclei | pink |

# Masson Trichrome

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Masson Trichrome with aniline blue** | 04-010802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 35 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

The method of choice for connective tissue, particularly indicated for gametes, nuclei, neurofibrils, glia, collagen, keratin, intracellular fibrils and negative images of the Golgi apparatus.

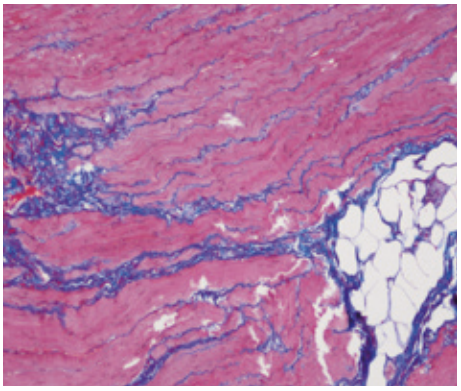
## Method

- 1) Bring the section to the distilled water.
- 2) Dispense 6 drops of reagent A onto the section and add 6 drops of reagent B: leave to act for 10 minutes.
- 3) Without washing, drain the slide and dispense 10 drops of solution C onto the section: leave to act for 4 minutes.
- 4) Wash quickly (3-4 seconds) in distilled water, leaving the section yellow in color, and dispense 10 drops of solution D onto the slide: leave to act for 4 minutes.
- 5) Wash in distilled water and dispense 10 drops of solution E onto the section: leave to act for 10 minutes.
- 6) Without washing, drain the slide and dispense 10 drops of solution F onto it: leave to act for 5 minutes.
- 7) Wash in distilled water and dehydrate rapidly by means of the ascending series of alcohols, pausing for 1 minute in the last absolute: xylene and balsam.

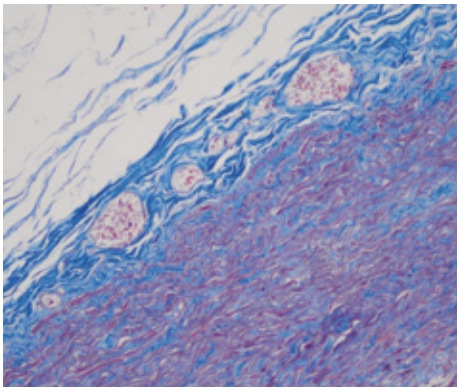
| **Result** | |
|---|---|
| Nuclei and gametes | black |
| Cytoplasm, keratin, muscle fibers, acidophilic granules | red |
| Collagen, mucus, basophilic granules of the pituitary gland | blue |
| Delta cell granules of the pituitary gland | blue |
| Erythrocytes | yellow |

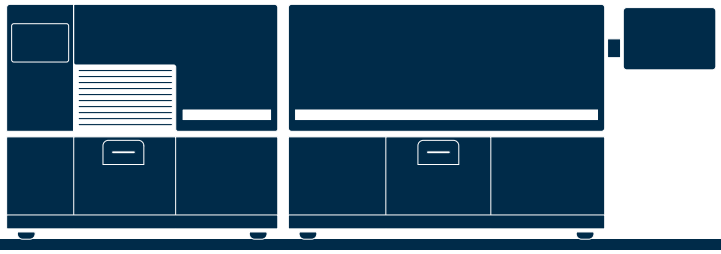
## Results

STOMACH



ARTERY





Bio - Optica

# Masson - Goldner Trichrome

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Masson-Goldner Trichrome with light green** | 04-011802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 35 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

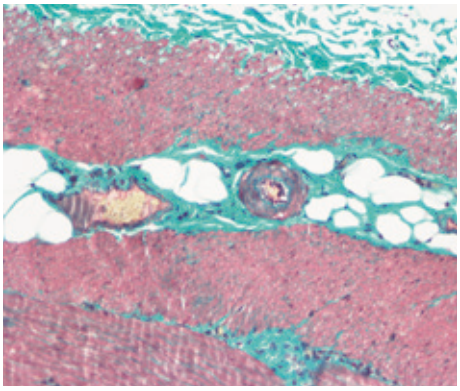
## Application

The method of choice for connective tissue, indicated for highlighting gametes, nuclei, neurofibrils, glia, collagen, keratin, intracellular fibrils and negative images of the Golgi apparatus.
Particularly indicated for black and white micro-photography.

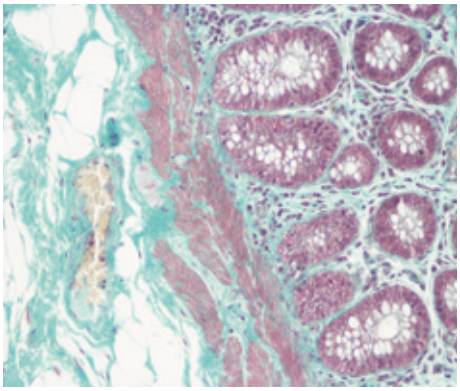
## Method

- 1) Bring the section to the distilled water.
- 2) Dispense 6 drops of reagent A onto the section and add 6 drops of reagent B : leave to act for 10 minutes.
- 3) Without washing, drain the slide and dispense 10 drops of solution C onto the section: leave to act for 4 minutes.
- 4) Wash quickly (3-4 seconds) in distilled water and dispense 10 drops of solution D onto the slide: leave to act for 4 minutes.
- 5) Wash in distilled water and dispense 10 drops of solution E onto the section: leave to act for 10 minutes.
- 6) Without washing, drain the slide and dispense 10 drops of solution F onto it: leave to act for 5 minutes.
- 7) Wash in distilled water and dehydrate rapidly by means of the ascending series of alcohols, leaving for 1 minute in the last absolute: xylene and balsam.

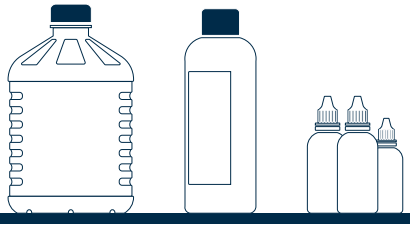
COLON **Results**



COLON



| **Result** | |
|---|---|
| Nuclei and gametes | black |
| Cytoplasm, keratin, muscle fibers, acidophilic granules | red |
| Collagen, mucus, basophilic granules of the pituitary gland | green |
| Delta cell granules of the pituitary gland | green |
| Erythrocytes | yellow |





# May Grünwald Giemsa

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **May Grünwald Giemsa for sections** | 04-081802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 35 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Graduated cylinder |

## Application

The method of choice for differentiating cell types and highlighting parasites on tissue sections; particularly indicated for lymphohematopoietic tissue. This stain is often used for identifying endothelial reticulum.

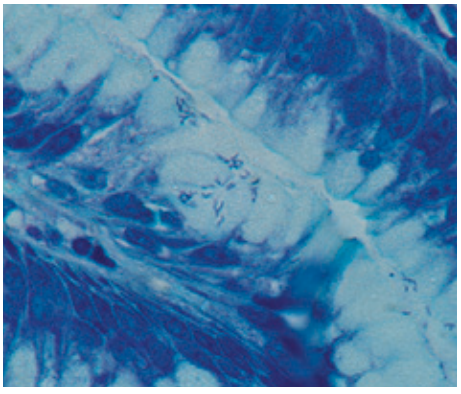
## Method

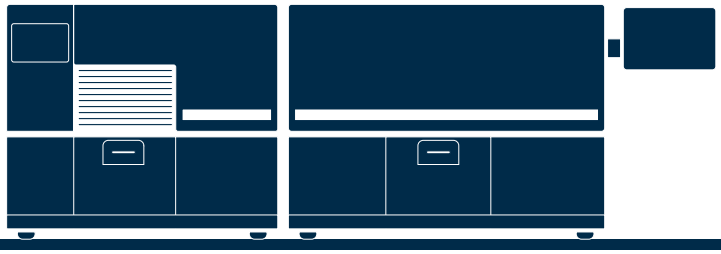
- 1) De-wax the section and bring it to the 70° ethanol.
- 2) Prepare the buffer solution: Pour 20 ml of distilled water into the attached container and add 10 drops of concentrated solution B. The diluted solution thus obtained will be designated “buffer solution B”.
- 3) Dispense 10 drops of buffer solution B onto the section: leave to act for 2 minutes.
- 4) Drain the slide and dispense 10 drops of reagent A and 5 drops of buffer solution B onto it: leave to act for 5 minutes.
- 5) Pipette 10 ml of buffer solution B and wash the slide thoroughly with it.
- 6) Dispense 10 drops of reagent C and 10 drops of buffer solution B into the dish, stir, place on the slide and leave to act for 12 minutes.
- 7) Differentiate in: 95° ethanol for 10 seconds, absolute ethanol for 30 seconds; absolute ethanol for 30 seconds.
- 8) Xylene and balsam.

## Results

STOMACH

| **Result** | |
|---|---|
| Nuclei | blue |
| Basophilic cytoplasm | from sky blue to dark blue |
| Acidophilic cytoplast | pink |
| Bacteria | blue |





Bio-Optica

## Mucicarmine

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Mayer's mucicarmine** | 04-190812 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 50 minutes |
| Shelf life | 1 year |
| Storage conditions | 15-25 °C |
| Additional equipment | Graduated pipette |

### Application

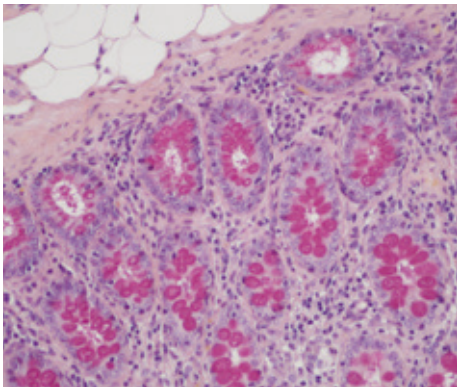
Method indicated for highlighting acid mucopolysaccharides of epithelial nature (mucins) on histological sections.
The use of Mucicarmine is of relative specificity, in fact mucins deriving from fibroblasts are generally weakly highlighted.

### Method

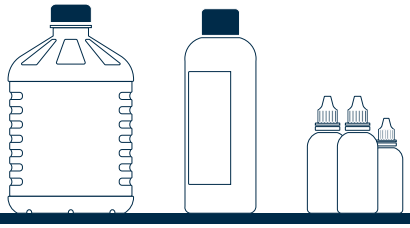
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section; leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Leave to develop in running water for 5 minutes.
- 5) Pipette 0.5 ml of distilled water into the dish, add 10 drops of reagent B, stir and transfer the mixture thus obtained to the slide: leave to act for 30 minutes.
- 6) Wash in distilled water.
- 7) Dispense 10 drops of reagent C onto the section: leave to act for 1 minute.
- 8) Wash in distilled water.
- 9) Dehydrate rapidly by means of the ascending series of alcohols, stopping in the last absolute; xylene and balsam.

COLON

### Results



| **Result** | |
|---|---|
| Mucins | from dark pink to red |
| Nuclei | blue – violet |
| Other components | orange |





# Nitro blue tetrazolium

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Nitroblue tetrazolium** | 04-253031 |

| | |
|---|---|
| Minimum number of tests that can be performed | 15 |
| Completion time | 30 minutes |
| Shelf life | 2 years |
| Storage conditions | 2-8°C |
| Additional equipment | Oven |

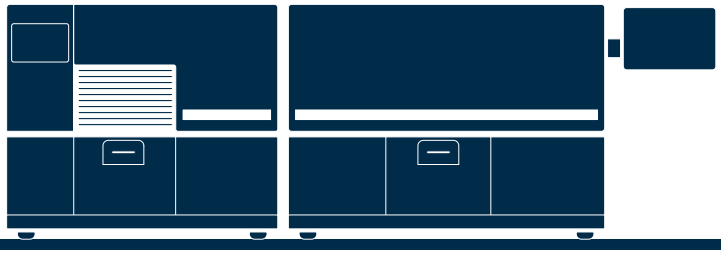
## Application

Post mortem, infarcted areas of the myocardium undergo a series of changes that are visible in sequence. In the first 6-12 hours after the acute episode, the myocardial infarction is generally neither macroscopically nor microscopically detectable. The ischemic muscle can, however, be highlighted, showing the loss of its oxidative activity with nitroblue tetrazolium staining on fresh sample: the infarcted area remains unstained.

## Method

- 1) To obtain 150 ml of ready-to-use solution: pour the entire contents of reagents A, B and C into a container of appropriate size and capacity. Stir briefly.
- 2) Immerse the sample of heart in the solution obtained and incubate at 37°C for 20-30 minutes.
- 3) Wash in tap water and observe the sample: the infarcted area appears pale, not stained.

| **Result** |
|---|
| The infarcted area appears pale, not stained. |



Bio-Optica

## Oil red 0

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Oil red 0** | 04-220923 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 25 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Glass histology jar with lid |

### Application

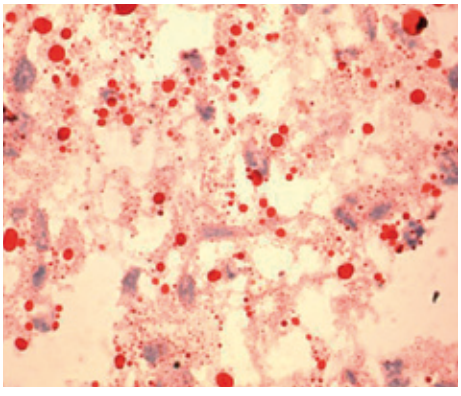
Method indicated for highlighting lipids on cryostat sections of tissue having a thickness of 5 µm.
Fixation: you are advised to use saline formalin or Baker fixative in order to make the phospholipids less soluble.

### Method

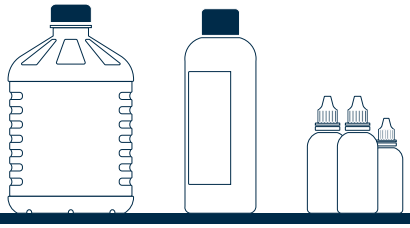
- 1) Bring the section to the distilled water.
- 2) Place the reagent A in the jar and immerse the section in it for 20 minutes.
- 3) Wash briefly in tap water.
- 4) Drain and dispense 10 drops of reagent B onto the section: leave to act for 30 seconds.
- 5) Leave to develop in tap water for 3 minutes.
- 6) Drain and mount with aqueous mounting medium.

ADIPOSE TISSUE

### Results



| **Result** | |
|---|---|
| Fatty acids bright | red |
| Nuclei | blue |





# Orcein

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Orcein for elastic fibers** | 04-055802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 30 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

Identification of elastic fibers on tissue sections.

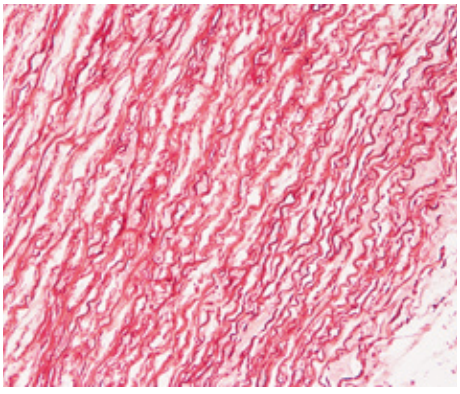
## Method

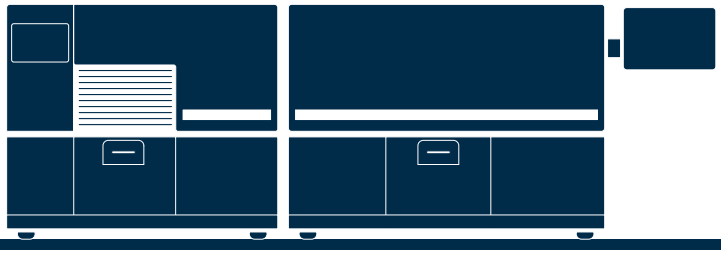
- 1) Bring the section to the distilled water.
- 2) Dispense 5 drops of reagent A and 5 drops of reagent B onto the section. Leave to act for 4 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent C onto the section. Leave to act for 1 minute.
- 5) Wash in distilled water.
- 6) Prepare the humid chamber as follows: soak the disc of filter paper with 20 drops of reagent A, insert the slide in the humid chamber and dispense 10 drops of reagent E onto the section. Close the lid and incubate for 20 minutes.
- 7) Wash in distilled water.
- 8) Dispense 10 drops of reagent F onto the section. Leave to act for 2 minutes.
- 9) Wash in running water for 1 minute.
- 10) Dehydrate by means of the ascending series of alcohols, xylene and balsam.

## Results

| **Result** | |
|---|---|
| Elastic fibers | from dark brown to dark purple |
| Background | almost colorless |

ELASTIC FIBERS





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# P.A.S. Periodic Acid Schiff

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **P.A.S. Periodic Acid Schiff Hotchkiss - Mc Manus** | 04-130802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 50 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Not required |

## Application

For highlighting normal or pathological tissue components, distinguished by adjacent glycol or amino hydroxyl groups on histological sections and on blood smears and cytology smears.

## Method

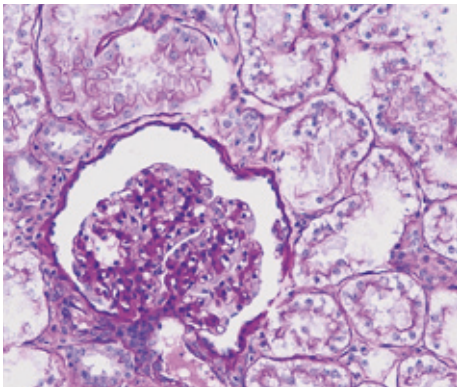
METHOD FOR HISTOLOGICAL SECTIONS

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 20 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of solution C onto the section: leave to act for 2 minutes.
- 7) Drain the slide and, without washing, dispense 10 drops of reagent D onto the section: leave to act for 2 minutes.
- 8) Wash in distilled water.
- 9) Dispense 10 drops of reagent E onto the section: leave to act for 3 minutes.
- 10) Leave to develop in running water for 5 minutes.
- 11) Dehydrate in the ascending series of alcohols, xylene and balsam.

METHOD FOR BLOOD SMEARS AND CYTOLOGY SMEARS

- 1) Place the air-dried smears in distilled water.
- 2) Dispense 10 drops of reagent A onto the smear: leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the smear: leave to act for 20 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of solution C onto the smear: leave to act for 2 minutes.
- 7) Drain the slide and, without washing, dispense 10 drops of reagent D onto the smear: leave to act for 2 minutes.
- 8) Wash in distilled water.
- 9) Dispense 10 drops of reagent E onto the smear: leave to act for 3 minutes.
- 10) Leave to develop in running water for 5 minutes.
- 11) Dehydrate in the ascending series of alcohols, xylene and balsam.

KIDNEY **Results**



| **Result** | |
|---|---|
| PAS-positive substances | magenta red |
| Nuclei | blue |

# P.A.S. Picro Indigo Carmine

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **P.A.S. Picro Indigo Carmine Morel - Maronger modified** | 04-131802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 45 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Not required |

## Application

Method indicated for simultaneous highlighting of neutral mucopolysaccharides and connective tissue on tissue sections.

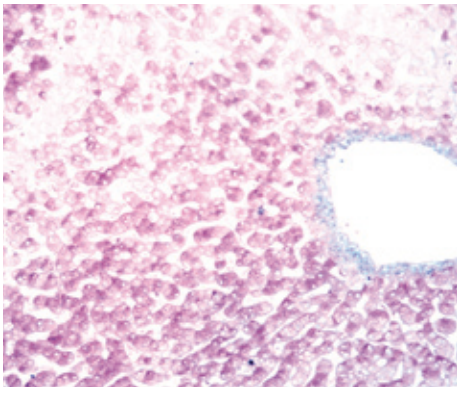
## Method

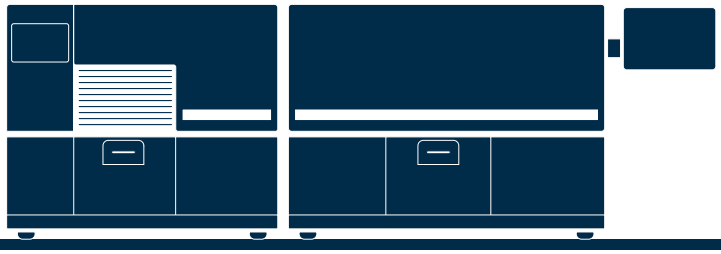
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 15 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of reagent C onto the section: leave to act for 2 minutes.
- 7) Drain the slide and, without washing, dispense 10 drops of reagent D onto the section: leave to act for 3 minutes.
- 8) Wash first in distilled water and then in tap water for 5 minutes.
- 9) Dispense 10 drops of solution E onto the slide: leave to act for 5 minutes.
- 10) Wash in distilled water and dehydrate rapidly in the ascending series of alcohols, stopping for 1 minute in the last absolute; xylene and balsam.

## Results

| **Result** | |
|---|---|
| PAS-positive substances | magenta red |
| Connective tissue | blue – green |
| Muscle, stratum corneum of the epithelium, glia fibers and erythrocytes | yellow – green |

LUNG





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## P.A.S. Pearse

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **P.A.S. Pearse** | 04-132802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 60 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8 °C |
| Additional equipment | Not required |

### Application

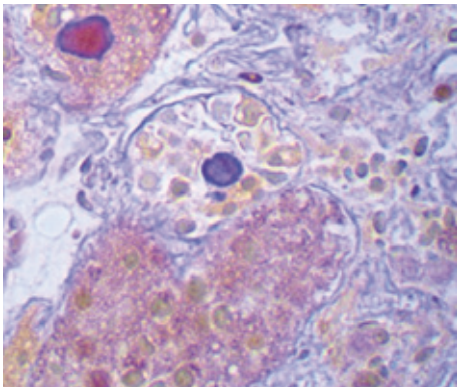
P.A.S. reaction particularly indicated for the pituitary gland for differentiating alpha cells from beta cells. The results are good on all tissues.

### Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash in bidistilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 15 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of solution C onto the section: leave to act for 2 minutes.
- 7) Drain the slide and, without washing, dispense 10 drops of reagent D onto the section: leave to act for 2 minutes.
- 8) Wash in distilled water.
- 9) Dispense 5 drops of solution E onto the section and add 5 drops of solution F: leave to act for 10 minutes.
- 10) Wash in distilled water.
- 11) Dispense 10 drops of reagent G onto the section: leave to act for 5 minutes.
- 12) Wash in distilled water.
- 13) Dehydrate rapidly in the ascending series of alcohols; xylene and balsam.

PITUITARY GLAND

### Results



| **Result** | |
|---|---|
| PAS-positive substances, alpha cell granules of the pituitary gland | magenta red |
| Beta cell granules of the pituitary gland, erythrocytes | orange |
| Gamma cell granules of pituitary gland | violet – purple |

# P.A.S. - A

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **P.A.S. - A Periodic Acid Schiff - Amylase** | 04-130803 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 60 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Not required |

## Application

Digestion on a histological section with an amylase solution followed by PAS reaction is indicated when you want to remove the glycogen so as to observe only the neutral epithelial mucins.
PAS/amylase reaction is the method of choice for evaluating the presence of glycogen in liver tissue on sections fixed in formalin and embedded in paraffin, and in muscle tissue on cryostat sections.
In both cases, the examination of adjacent sections, one of which has been treated with amylase, allows qualitative evaluation of the presence of glycogen.

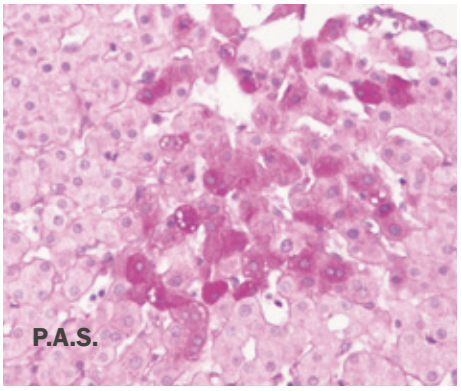
## Method

- 1) Bring the section to the distilled water.
- 2) Bring reagent A to room temperature.
- 3) Dispense 10 drops of reagent A: leave to act for 10 minutes at room temperature.
- 4) Wash the slide several times in distilled water.
- 5) Dispense 10 drops of reagent B onto the section: leave to act for 10 minutes.
- 6) Wash in distilled water.
- 7) Dispense 10 drops of reagent C onto the section: leave to act for 20 minutes.
- 8) Wash in distilled water.
- 9) Dispense 10 drops of solution D onto the section: leave to act for 2 minutes.
- 10) Drain the slide and, without washing, dispense 10 drops of reagent E onto the section: leave to act for 2 minutes.
- 11) Wash in distilled water.
- 12) Dispense 10 drops of reagent F onto the section: leave to act for 3 minutes.
- 13) Leave to develop in running water for 5 minutes.
- 14) Dehydrate in the ascending series of alcohols, xylene and balsam.

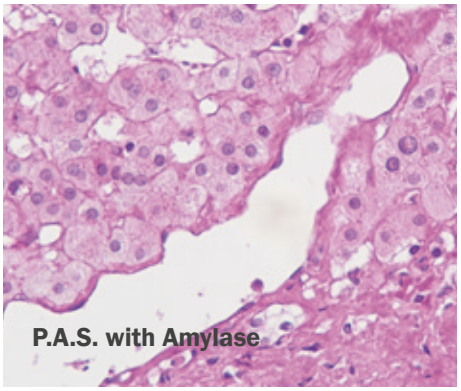
| **Result** | |
|---|---|
| PAS-positive substances | magenta red |
| Nuclei | blue |

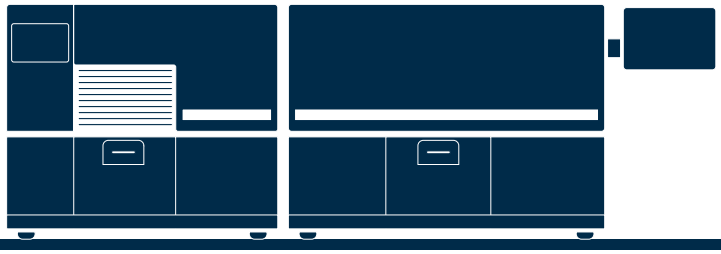
## Results

LIVER




LIVER





Bio-Optica

# Perls

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Perls method for ferric iron** | 04-180807 |

| | |
|---|---|
| Minimum number of tests that can be performed | 72 |
| Completion time | 35 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | 50 ml vertical histology jar, graduated cylinder and glass rod |

## Application

Method indicated for viewing reactive ferric iron on tissue sections, blood smears and bone marrow smears.
Specificity - the Perls reaction does not show all the iron present in the tissue: iron bound to hemoglobin, malaria pigment, ferritin, pigments deriving from the use of acid formalin and ferrous iron does not react.

## Method

METHOD FOR HISTOLOGICAL SECTIONS

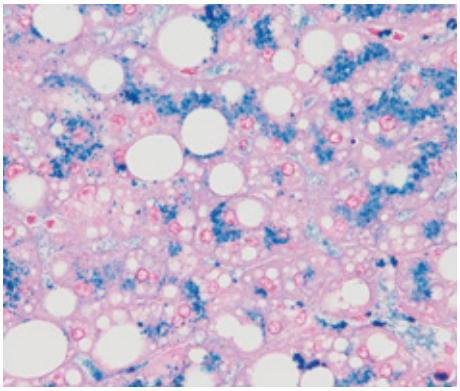
- 1) Bring the section to the distilled water.
- 2) Transfer the entire contents of bottle A to a 50 ml Coplin jar. Add, in order, 30 ml of distilled water and 4 ml of reagent B. Stir briefly. Immerse the section for 20 minutes.
- 3) Wash thoroughly in distilled water.
- 4) Dispense 10 drops of reagent C onto the section: leave to act for 5 minutes.
- 5) Wash in distilled water.
- 6) Dehydrate by means of the ascending series of alcohols; xylene and balsam

METHOD FOR BLOOD SMEARS AND BONE MARROW SMEARS

- 1) Fix the previously dried smears in methanol for 3 minutes. Remove the slide and leave to dry.
- 2) Transfer the entire contents of bottle A to a 50 ml Coplin jar. Add, in order, 30 ml of distilled water and 4 ml of reagent B. Stir briefly. Immerse the section for 20 minutes.
- 3) Wash thoroughly in distilled water.
- 4) Dispense 10 drops of reagent C onto the smears: leave to act for 5 minutes.
- 5) Wash in distilled water.
- 6) Dry in air.

LIVER

## Results



| **Result** | |
|---|---|
| Reactive ferric iron | blue |
| Nuclei | red |

## Notes:

False positives may be caused by three easily identifiable factors:

- ferrocyanide-hydrochloric acid solution not freshly prepared;
- ferric ions contaminating the glassware and section stretching water (rust), use of metal instruments in contact with the solution (forceps etc.);
- asbestosis: asbestos, if present, can generate a positive reaction.

## Perls - Van Gieson

| PRODUCT AND APPLICATION | | CODE |
|---|---|---|
| ● **Perls - Van Gieson method for ferric iron and connective tissue** | | 04-181807 |
| Minimum number of tests that can be performed | 72 | |
| Completion time | 35 minutes | |
| Shelf life | 2 years | |
| Storage conditions | 15-25 °C | |
| Additional equipment | 50 ml vertical histology jar, graduated cylinder and glass rod | |

### Application

Method indicated for simultaneous highlighting of reactive ferric iron, collagen and connective tissue on tissue sections.

### Method

- 1) Bring the section to the distilled water.
- 2) Transfer the entire contents of bottle A to a 50 ml Coplin jar. Add, in order, 30 ml of distilled water and 4 ml of reagent B. Stir briefly. Immerse the section for 20 minutes.
- 3) Wash thoroughly in distilled water.
- 4) Dispense 10 drops of reagent C onto the section: leave to act for 10 minutes.
- 5) Wash in distilled water.
- 6) Dehydrate rapidly in the ascending series of alcohols, stopping for 1 minute in the last absolute; xylene and balsam.

| **Result** | |
|---|---|
| Reactive ferric iron | blue |
| Collagen | purple red |
| Cytoplasm, muscle, stratum corneum of the epithelium, glia and erythrocytes | yellow |

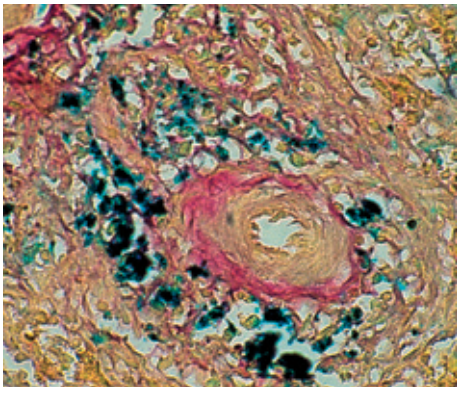
### Notes:

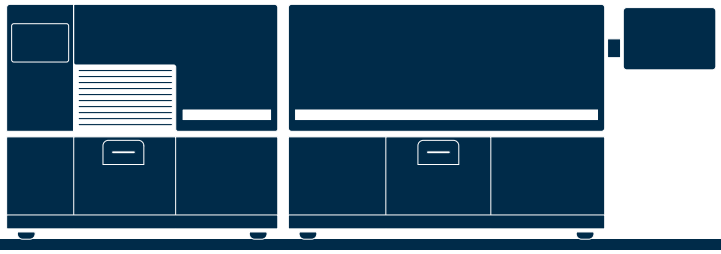
False positives may be caused by three easily identifiable factors:

- ferrocyanide-hydrochloric acid solution not freshly prepared;
- ferric ions contaminating the glassware and section stretching water (rust), use of metal instruments in contact with the solution (forceps etc.);
- asbestosis: asbestos, if present, can generate a positive reaction.

### Results

LIVER





Bio-Optica

## Picro Mallory Trichrome

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Picro Mallory Trichrome** | 04-021822 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 40 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

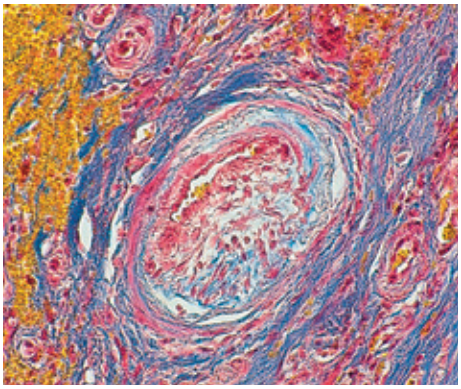
Trichrome stain recommended for connective sections.

### Method

- 1) Bring section to distilled water.
- 2) Put on the section 5 drops of reagent A and 5 drops of reagent B: leave to act for 10 minutes.
- 3) Rinse in distilled water.
- 4) Blue 10 minutes in running tap water.
- 5) Put on the section 10 drops of reagent C: leave to act 2 minutes.
- 6) Rinse in distilled water.
- 7) Put on the section 10 drops of reagent D: leave to act 1 minute.
- 8) Rinse in distilled water.
- 9) Put on the section 10 drops of reagent E: leave to act 15 minutes.
- 10) Rinse in distilled water.
- 11) Put on the section 10 drops of reagent F: leave to act 1 minute.
- 12) Dehydrate rapidly through ascending alcohols, stop for 1 minute at the last absolute ethanol. Clear in xylene and mount.

CONNECTIVE TISSUE

### Results



| **Result** | |
|---|---|
| Nuclei: | dark brown |
| Collagen fibres: | dark blue |
| Ground substance of cartilage, bone, mucus, basophil granules of hypophysis and amyloid: | shades of blue |
| Neuroglia, axis cylinders and fibrin: | red |
| Acidophil granules of hypophysis: | orange |
| Myelin and erythrocytes: | Yellow |
| Elastic fibres: | pale pink to yellow |

# P.T.A.H. Phosphotungstic Acid Hematoxylin

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **P.T.A.H. Phosphotungstic Acid Hematoxylin** | 04-060802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 13 minutes + overnight |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

The method, originally proposed for staining the glia, is now mainly indicated for differentiating smooth muscle from striated muscle (by staining the isotropic bands of myofibrils of the skeletal muscle); it is also one of the methods of choice for fibrin.

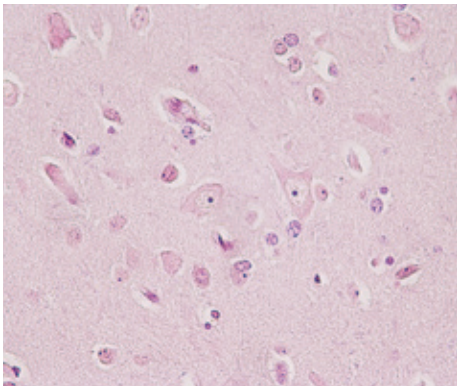
## Method

- 1) Bring the section to the distilled water.
- 2) Dispense 5 drops of solution A onto the section and add 5 drops of solution B: leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of solution C onto the section: leave to act for 5 minutes.
- 5) Wash in distilled water.
- 6) Pour the entire contents of the bottle of reagent D into the empty container attached to the pack, immerse the section in it and leave overnight.
- 7) Wash quickly in distilled water (3-4 seconds).
- 8) Dehydrate the section rapidly in the ascending series of alcohols, stopping for 1 minute in the last absolute; xylene and balsam.

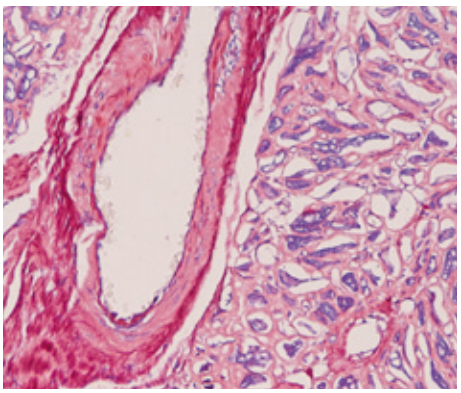
| **Result** | |
|---|---|
| Nuclei, fibrin (most), myofibrils, astrocytes, certain elastic fibers, glia, myelin fibers | dark blue |
| Collagen, bone matrix, cartilage | brick red in various shades |

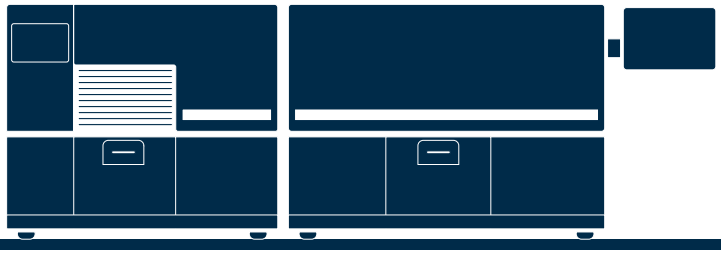
## Results

BRAIN



BLOOD VESSEL





Bio-Optica

## Rapid frozen sections

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Rapid frozen sections H&E staining kit** | 04-061010 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | Approximately 3 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25°C |
| Additional equipment | 100 ml jar for buffer preparation, jar for washing |

### Application

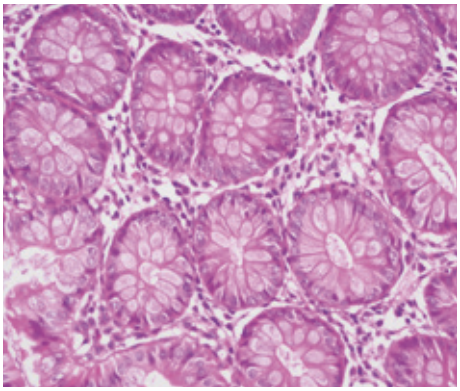
Rapid method for staining cryostat sections with a thickness of 6 microns.

### Method

- 1) Preparation of the developing solution: dispense 10 drops of reagent B into a 100 ml jar. The kit is sufficient for the preparation of 100 developing solutions, we therefore recommended that you change the work solution frequently.
- 2) Place the section in the container labeled REAGENT A for 45 – 60 seconds.
- 3) Wash in tap water, 5 immersions.
- 4) Place in the developing solution, 5 immersions.
- 5) Wash in tap water, 5 immersions.
- 6) Place the section in the container labeled REAGENT C for 30 seconds.
- 7) 95° ethanol, 5 immersions.
- 8) 95° ethanol, 5 immersions.
- 9) Absolute ethanol, 5 immersions.
- 10) Absolute ethanol, 5 immersions.
- 11) Xylene, Bio-Clear or X-Free, 10 immersions.
- 12) Xylene, Bio-Clear or X-Free, 10 immersions.

COLON

### Results



| **Result** | |
|---|---|
| Cytoplasm, connective tissue | pink in various shades and intensities |
| Nuclei | blue |

## Congo Red

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Highman's Congo red** | 04-210822 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 35 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

Method for highlighting amyloid on tissue sections.

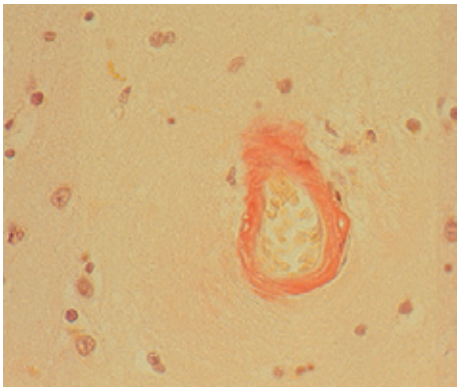
### Method

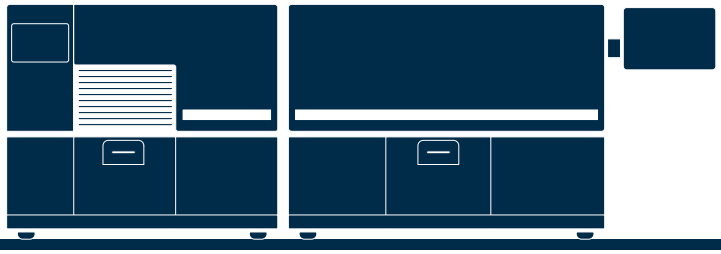
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 15 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 30 seconds.
- 5) Wash in running tap water for 5 minutes.
- 6) Dispense 10 drops of reagent C onto the section: leave to act for 2 minutes.
- 7) Dispense 10 drops of reagent D onto the section: leave to act for 5 minutes.
- 8) Leave to develop in tap water for 5 minutes.
- 9) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

### Results

| **Result** | |
|---|---|
| Amyloid substance | brick red and birefringent in polarized light |
| Nuclei | blue |

BLOOD VESSEL





Bio-Optica

## Sirius Red

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Sirius Red** | 04-210923 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 1 hour 15 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

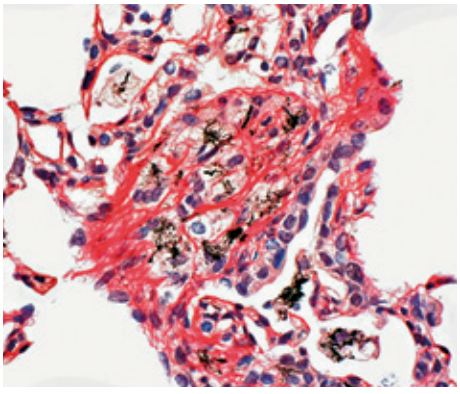
Method for highlighting amyloid in tissues fixed in formalin and embedded in paraffin.

### Method

- 1) Bring the section to the distilled water.
- 2) Prepare the humid chamber and place the slide in it with the section facing up. Dispense 10 drops of reagent A onto the section, close the humid chamber and incubate in an oven at 60 °C. Leave to act for 60-90 minutes.
- 3) Dispense 10 drops of reagent B onto the section for 1 - 2 minutes.
- 4) Drain the slide and dispense 10 drops of reagent C onto the section: leave to act for 1 - 2 minutes.
- 5) Dispense 10 drops of reagent D onto the section. Leave to act for 5 minutes.
- 6) Leave to develop in running water for 5 minutes.
- 7) Dehydrate in the ascending series of alcohols, xylene and balsam.

AMYLOID SUBSTANCE

### Results



| **Result** | |
|---|---|
| Amyloid substance | pink - red |
| Nuclei | blue |

## Picrosirius Red

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Picrosirius Red** | 04-121873 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 60 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

Method indicated for highlighting collagen fibers and bile pigments on tissue sections fixed in formalin and embedded in paraffin.

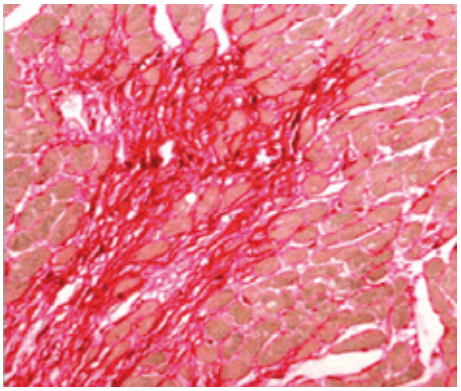
### Method

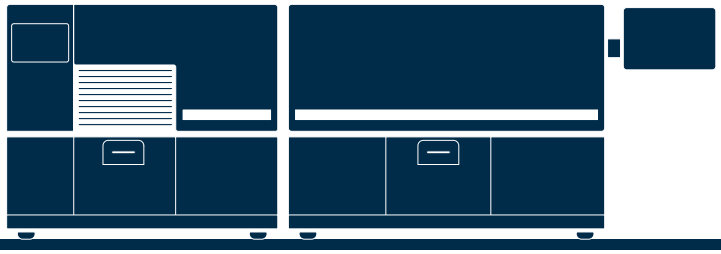
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 50 minutes.
- 3) Wash briefly in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 2 minutes. Repeat twice.
- 5) Wash briefly in distilled water and drain the slide.
- 6) Dispense 10 drops of reagent C onto the section: leave to act for 3 minutes.
- 7) Leave to develop in tap water: 3 minutes.
- 8) Wash in distilled water and dehydrate rapidly by means of the ascending series of alcohols, leaving for 1 minute in the last absolute: xylene and balsam.

| **Result** | |
|---|---|
| Bilirubin | green |
| Collagen fibers | red |
| Nuclei | blue |
| Erythrocytes | red |

### Results

LIVER





Bio - Optica

# Methenamine Silver

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Methenamine Silver P.A.S.M.** | 04-043822 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 1 hour 15 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8 °C |
| Additional equipment | Oven |

## Application

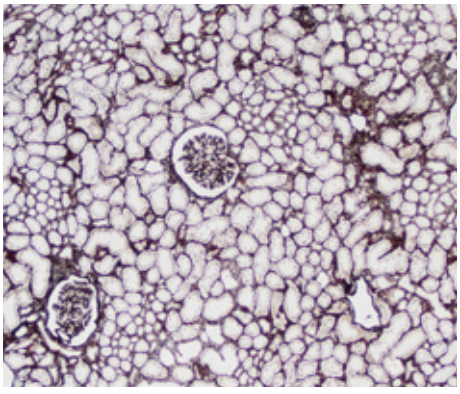
Method used for viewing argyrophilic elements and mucopolysaccharides (basal membranes, mycetes, bacteria, etc.) on tissue sections. It is the method of choice for studying the basal membrane in renal biopsy.

## Method

- 1) Bring the sections to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 30 minutes.
- 3) Wash in distilled water.
- 4) Prepare the humid chamber and place the slide in it with the section facing up. Dispense 10 drops of reagent B into the small dish attached to the pack, add 10 drops of reagent C and 10 drops of reagent D, stir and place the solution thus obtained on the section: close the humid chamber and incubate in an oven at 60 °C. Leave to act for 30-40 minutes.
- 5) Remove the humid chamber from the oven, open the lid and check the tone of the impregnation: if the blackening is correct, leave the slide to cool for 5 minutes and then wash it in distilled water; if it is insufficient, incubate in the oven again and check every 5 minutes.
- 6) Dispense 10 drops of reagent E onto the section: leave to act for 1 minute.
- 7) Wash in distilled water.
- 8) Dispense 10 drops of reagent F onto the section: leave to act for 1 minute.
- 9) Wash in distilled water.
- 10) Dehydrate by means of the ascending series of alcohols, xylene and balsam.

KIDNEY

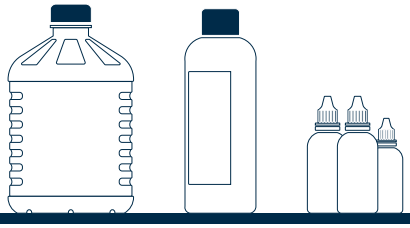
## Results



| **Result** | |
|---|---|
| Basal membranes, glycogen, dish of mycetes and bacteria | black |

## WARNINGS

As for all reactions involving silver salts, it is essential to use rigorously clean glassware and good-quality distilled or deionized water. Furthermore, do not bring metal instruments (forceps, etc.) into contact with reagents containing silver salts.





# Van Gieson Trichrome

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Van Gieson Trichrome** | 04-030802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 35 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

Method of choice for connective tissue, particularly indicated for highlighting collagen fibers and differentiating them from connective tissue.

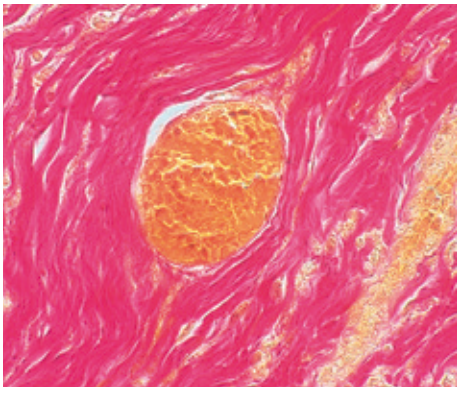
## Method

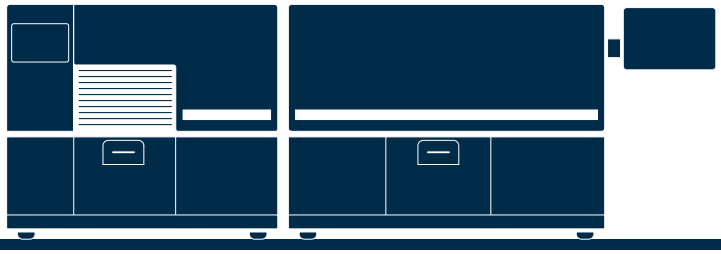
- 1) Bring the section to the distilled water.
- 2) Dispense 5 drops of reagent A onto the section and add 5 drops of reagent B : leave to act for 10 minutes.
- 3) Leave to develop in tap water for 10 minutes.
- 4) Dispense 10 drops of solution C onto the section: leave to act for 10 minutes.
- 5) Wash quickly (2-3 seconds) in distilled water and dehydrate rapidly in the ascending series of alcohols, stopping for 1 minute in the last absolute; xylene and balsam.

## Results

CONNECTIVE TISSUE

| **Result** | |
|---|---|
| Nuclei | black |
| Collagen fibers | purple red |
| Cytoplasm, smooth and striated muscle, stratum corneum of the epithelium, glia and erythrocytes | yellow |





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# Methyl Green Pyronin

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Methyl Green Pyronin** | 04-121812 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 45 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25°C |
| Additional equipment | Not required |

## Application

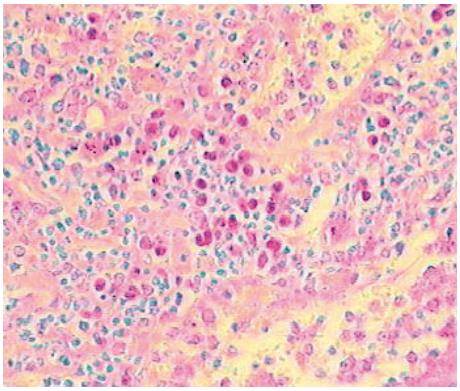
Method indicated for simultaneous viewing of DNA and RNA on histological sections. Particularly indicated for highlighting plasma cells and RNA in histological sections and cytological preparations.

## Method

- 1) De-wax the slides and bring them to the 70° ethanol.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Drain the section and dispense 10 drops of reagent B onto it: leave to act for 15 minutes.
- 4) Drain the slide and dispense 10 drops of reagent C onto the section: leave to act for 3 minutes.
- 5) Wash the slides in running water for 10 minutes.
- 6) Wash in distilled water.
- 7) Dispense 10 drops of reagent D onto the section: leave to act for 7 minutes.
- 8) Wash quickly in distilled water and dry the slide first in filter paper, then in the air for 10 minutes.
- 9) Diaphanize by means of at least 2 immersions in xylene, balsam.

CONNECTIVE TISSUE

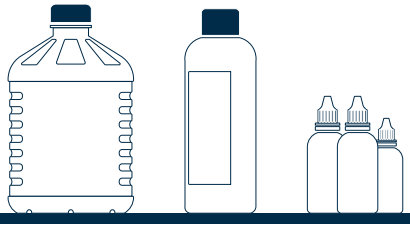
## Results



| **Result** | |
|---|---|
| DNA | pale green |
| RNA (plasma cells, nucleoli, blasts) | pink – red |
| Mast cell granules | blue |
| Background contrast | turquoise |

## WARNINGS

- Do not use fixatives with a formaldehyde content of more than 10%: higher concentrations inhibit the amino groups of DNA.
- Do not use excessively acidic fixatives: they inhibit the reaction, causing hydrolysis.
- It is very important not to depolymerize the DNA at excessively high temperatures (impregnation in paraffin and, in particular, section stretching bath); the phosphoric groups of the DNA molecule thus move away from each other, reducing or eliminating the attachment sites of methyl green (pyroninophilia of DNA).





| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Verhoeff** | 04-056802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 60 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Verhoeff

### Application

Method for demonstrating elastic fibers on histological sections, particularly indicated for vascular pathology.

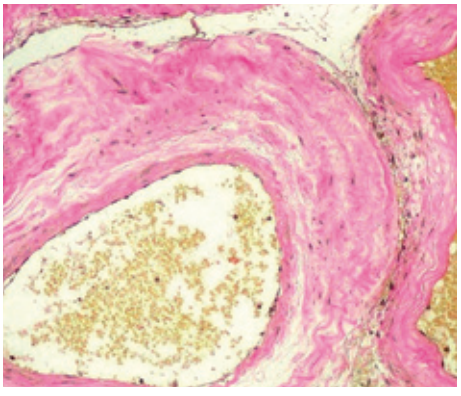
### Method

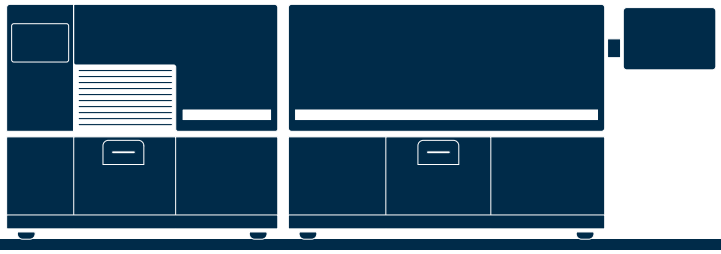
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 30 minutes.
- 3) Wash in distilled water.
- 4) Differentiate in tap water.
- 5) Place the slide in the humid chamber and dispense 8 drops of reagent B + 4 drops of reagent C + 4 drops of reagent D onto the section. Leave to act for 25 minutes.
- 6) Wash in distilled water.
- 7) Differentiate with reagent E: 2 or 3 changes of 15 seconds each.
- 8) Wash thoroughly in distilled water.
- 9) Dispense 10 drops of reagent F onto the section: leave to act for 1 minute.
- 10) Wash in distilled water.
- 11) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

### Results

ARTERY

| **Result** | |
|---|---|
| Elastic fibers and nuclei | black |
| Collagen | red |
| Other tissue elements | yellow |





Bio - Optica

## Von Kossa

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Von Kossa method for calcium** | 04-170801 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 1 hour 25 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Not required |

### Application

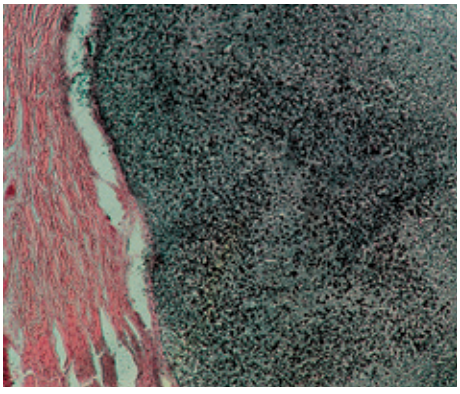
Method indicated for viewing calcium ions on histological sections.

### Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash thoroughly in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act in the dark for 1 minutes.
- 5) Wash thoroughly in distilled water.
- 6) Dispense 10 drops of distilled water onto the section and add 10 drops of reagent C: leave to act for 5 minutes (until the silver salts turn black).
- 7) Wash in distilled water.
- 8) Dispense 10 drops of reagent D onto the section: leave to act for 5 minutes.
- 9) Wash in distilled water.
- 10) Dispense 10 drops of reagent E onto the section: leave to act for 5 minutes.
- 11) Wash in distilled water and dehydrate in the ascending series of alcohols; xylene and balsam.

BONE

### Results



| **Result** | |
|---|---|
| Sites where calcium salts were present | black |
| Nuclei | red |

## Warthin-Starry

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Warthin-Starry method for spirochetes** | 04-040903 |

| | |
|---|---|
| Minimum number of tests that can be performed | 40 |
| Completion time | 1 hour 45 minutes |
| Shelf life | 1 year |
| Storage conditions | 2-8°C |
| Additional equipment | Oven, jar for buffer dilution, graduated pipette, glass rod |

### Application

Method for highlighting spirochetes.

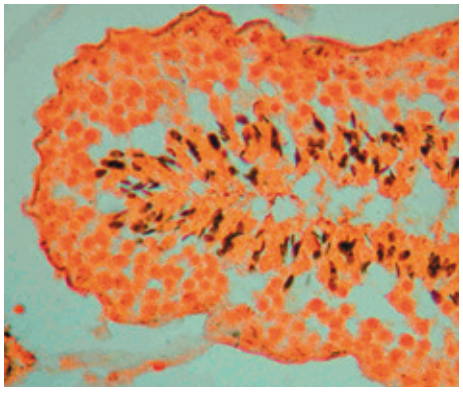
### Method

- 1) Bring the section to the distilled water.
- 2) Prepare the impregnating solution: pour 13 ml of distilled water into the container, then add 4.5 ml of reagent A and 20 drops of reagent B. Stir briefly with a glass rod previously washed in distilled water.
- 3) Place the section in the solution and incubate for 90 minutes at 60-70°C.
- 4) Remove the container from the oven and leave to cool for 5 minutes.
- 5) While the impregnation reaction takes place, prepare the developing solution.
  Note: you are advised to carry out the indicated operations during the last 12 minutes of incubation started in step 3. Preheat one bottle C and one bottle D in an oven at 50°C for 10 minutes.
  Pour the entire contents of the two preheated bottles into the second container available for slides (beware of the temperature of the bottles – use protective gloves), stir briefly with a glass rod previously washed in distilled water and then pour in the entire contents of one bottle E and stir again.
- 6) Place the section in the developing solution you have just prepared and place in an oven at 50°C for 5 – 10 minutes.
- 7) Wash in hot running water for 2 minutes.
- 8) Dehydrate by means of the ascending series of alcohols, xylene and balsam.

### Results

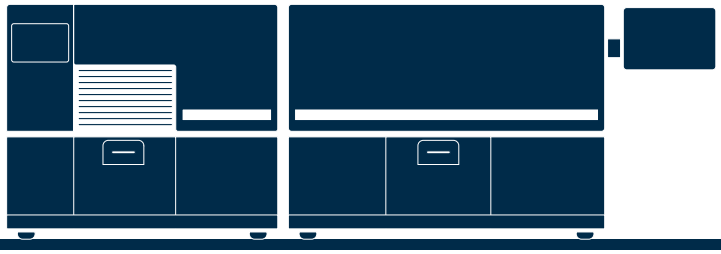
SPIROCHETES

| **Result** | |
|---|---|
| Spirochetes and other micro-organisms | black |
| Background | golden brown |



### WARNINGS

- For washing, it is imperative to use top-quality distilled water.
- Do not use Poly-L-Lysine coated slides.
- Do not use metal objects (racks, forceps).



Bio - Optica

# Weigert - long method

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Weigert for elastic fibers (long method)** | 04-050802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | Overnight + 25 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Histology jar with lid |

## Application

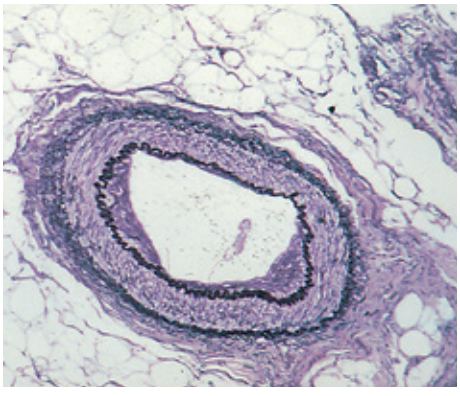
Method indicated for demonstrating elastic fibers on histological sections.

## Method

- 1) Bring the section to the distilled water.
- 2) Dispense 5 drops of solution A onto the section and add 5 drops of solution B: leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of solution C onto the section: leave to act for 5 minutes.
- 5) Wash in distilled water.
- 6) Pour the reagent D into a vertical histology jar, immerse the section in it and close firmly: leave to act overnight.
  After use, in order to minimize evaporation of the ethanol, you are advised to return the solution to its original bottle.
- 7) Wash in distilled water.
- 8) Dispense 10 drops of solution E onto the section: leave to act for 10 minutes.
- 9) Wash in distilled water.
- 10) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

BLOOD VESSEL

## Results



| **Result** | |
|---|---|
| Elastic fibers | from dark blue to black |

# Weigert - rapid method

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Weigert for elastic fibers (rapid method)** | 04-052812 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 60 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Graduated pipette |

## Application

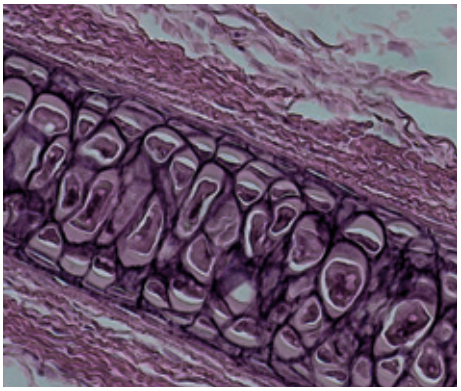
Method indicated for demonstrating elastic fibers on histological sections, particularly indicated for vascular pathology.

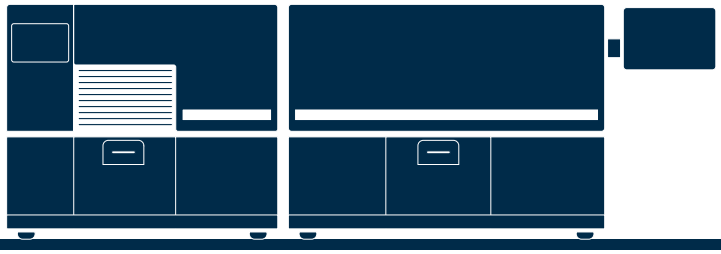
## Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of solution A onto the section: leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Prepare the humid chamber as follows: soak the disc of filter paper with 20 drops of reagent B, insert the slide in the humid chamber and dispense 10 drops of reagent C onto the section. Close the lid and incubate for 30 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of reagent D onto the section: leave to act for 2 minutes.
- 7) Wash in running water for 5 minutes
- 8) Wash in distilled water.
- 9) Dispense 10 drops of reagent E onto the section: leave to act for 5 minutes.
- 10) Wash in distilled water.
- 11) Dehydrate by means of the ascending series of alcohols; xylene and balsam.

| **Result** | |
|---|---|
| Elastic fibers | purple - brown |
| Nuclei | red |

**Results** ELASTIC FIBERS





Bio-Optica

# Weigert Van Gieson long method

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Weigert Van Gieson for elastic fibers and connective tissue(long method)** | 04-051802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 50 minutes + overnight |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Vertical histology jar with lid |

## Application

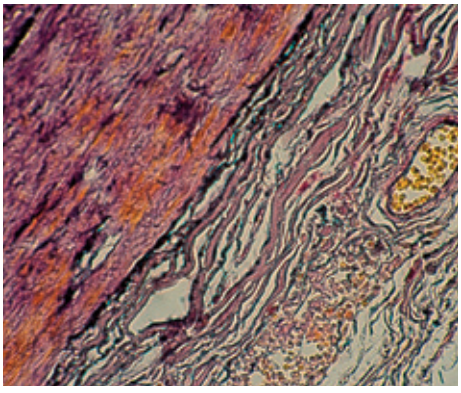
Combined method for viewing elastic fibers, connective tissue, collagen and nuclei on the same preparation.
Van Gieson trichrome is the most commonly used method in association with Weigert staining for elastic fibers.

## Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of solution A onto the section: leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Pour the reagent B into a vertical histology jar, immerse the section in it and close firmly: leave to act overnight. After use, you are advised to return the solution to its original bottle.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of reagent C onto the section: leave to act for 10 minutes.
- 7) Wash in distilled water.
- 8) Dispense 5 drops of solution D onto the section and add 5 drops of solution E: leave to act for 10 minutes.
- 9) Leave to develop in tap water for 10 minutes.
- 10) Dispense 10 drops of solution F onto the section: leave to act for 7 minutes.
- 11) Wash quickly (2-3 seconds) in distilled water and dehydrate rapidly in the ascending series of alcohols, stopping for 1 minute in the last absolute; xylene and balsam.

CONNECTIVE TISSUE AND ELASTIC FIBERS

## Results



| **Result** | |
|---|---|
| Elastic fibers | purple - brown |
| Nuclei | black |
| Collagen | red, in various shades |
| Connective tissue, erythrocytes | yellow |

# Weigert Van Gieson rapid method

| PRODUCT AND APPLICATION | | CODE |
|---|---|---|
| ● **Weigert Van Gieson for elastic fibers and connective tissue(rapid method)** | | 04-053812 |
| Minimum number of tests that can be performed | 100 | |
| Completion time | 1 hour 20 minutes | |
| Shelf life | 2 years | |
| Storage conditions | 15-25 °C | |
| Additional equipment | Graduated pipette | |

## Application

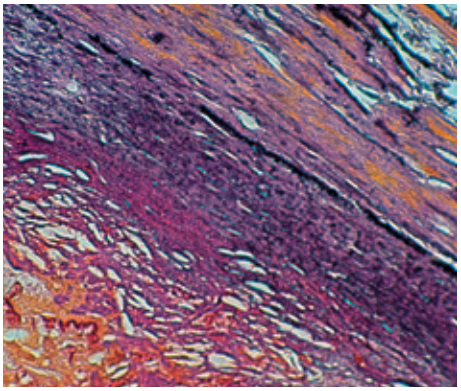
Combined method for viewing elastic fibers, connective tissue, collagen and nuclei on the same preparation.
Van Gieson trichrome is the most commonly used method in association with Weigert staining for elastic fibers.

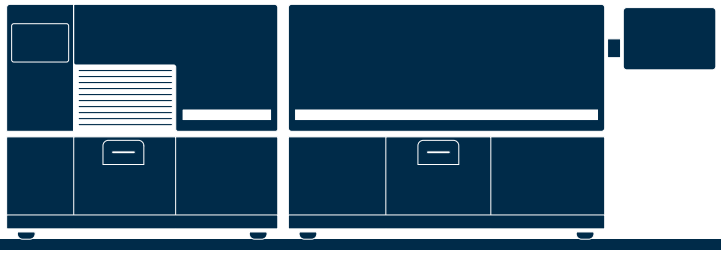
## Method

- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of solution A onto the section: leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Prepare the humid chamber as follows: soak the disc of filter paper with 20 drops of reagent B, insert the slide in the humid chamber and dispense 10 drops of reagent C onto the section. Close the lid and incubate for 30 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of reagent D onto the section: leave to act for 2 minutes.
- 7) Wash in tap water for 5 minutes.
- 8) Wash in distilled water.
- 9) Dispense 5 drops of solution E onto the section and add 5 drops of solution F: leave to act for 10 minutes.
- 10) Leave to develop in tap water for 10 minutes.
- 11) Dispense 10 drops of solution G onto the section: leave to act for 10 minutes.
- 12) Wash quickly (2-3 seconds) in distilled water and dehydrate rapidly in the ascending series of alcohols, stopping for 1 minute in the last absolute; xylene and balsam.

| **Result** | |
|---|---|
| Elastic fibers | purple - brown |
| Nuclei | black |
| Collagen | red, in various shades |
| Connective tissue, erythrocytes | yellow |

**Results** CONNECTIVE TISSUE AND ELASTIC FIBERS





Bio-Optica

## Wilson's Disease Stain

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Wilson's Disease Stain method for copper** | 04-182807 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 3 hours 15 minutes or overnight, depending on incubation temperature |
| Shelf life | 1 year |
| Storage conditions | 15-25 °C |
| Additional equipment | Graduated cylinder, glass rod, oven, 50 ml Coplin jar |

### Application

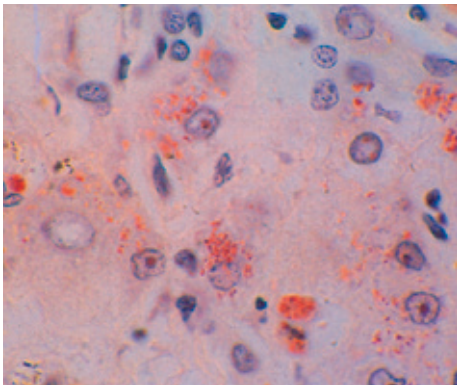
Method for viewing copper on sections of liver tissue.

### Method

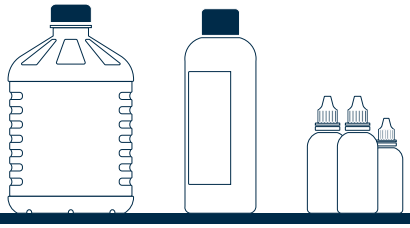
- 1) Bring the sections to the distilled water.
- 2) Prepare the Rhodanine solution:
  Pour 40 ml of distilled water into the 50 ml Coplin jar, add 1 ml of reagent A, 1 ml of reagent B and 20 drops of reagent C. Stir briefly with a glass rod.
- 3) Place the slide in the solution thus obtained and incubate in an oven at 56 °C for 3 hours or at 37 °C overnight.
- 4) Wash the slide in 3 changes of distilled water.
- 5) Dispense 10 drops of reagent D onto the section: leave to act for 3 minutes.
- 6) Leave to develop for 2 minutes in tap water.
- 7) Dehydrate by means of the ascending series of alcohols, xylene and balsam.

LIVER

### Results



| **Result** | |
|---|---|
| Copper | red – orange |
| Nuclei | blue |





## Ziehl-Neelsen

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Ziehl-Neelsen for mycobacteria** | 04-110802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 50 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

For highlighting pathogenic mycobacteria with particular regard to Koch's bacillus, on histological sections, sputum and culture smears, and appositions.

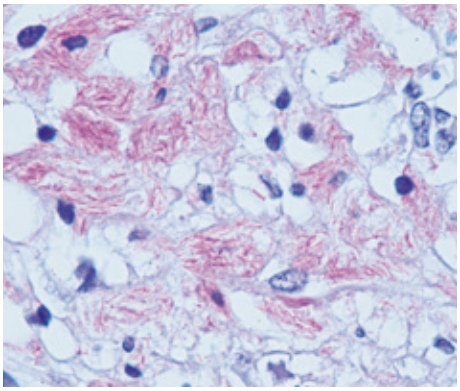
### Method

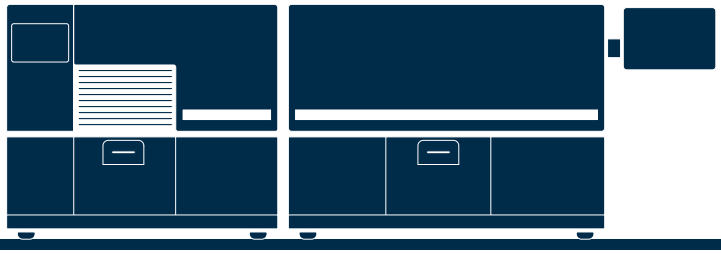
- 1) Bring the sections to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 30 minutes.
- 5) Wash in distilled water and dry the slide with filter paper.
- 6) Dispense 10 drops of reagent C onto the section: leave to act for 1 minute.
- 7) Wash in tap water for 3 minutes.
- 8) Dispense 10 drops of reagent D onto the section: leave to act for 2 minutes.
- 9) Wash in distilled water, develop for 5 minutes in running water.
- 10) Dehydrate by means of the ascending series of alcohols, xylene and balsam.

### Results

LUNG

| **Result** | |
|---|---|
| Koch's bacillus and other acid-resistant elements | red |
| Nuclei | blue – violet |





Bio-Optica

## Ziehl-Neelsen Fite

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Ziehl-Neelsen Fite for mycobacteria** | 04-111802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 45 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

### Application

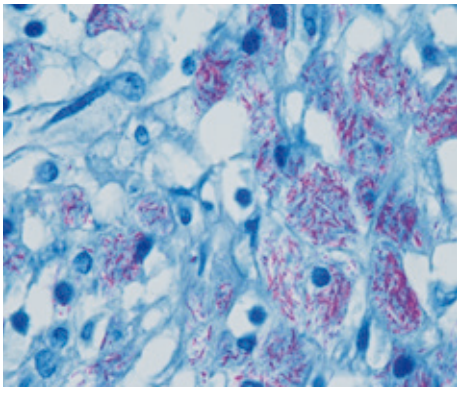
For highlighting pathogenic mycobacteria with particular regard to Koch's and Hansen's bacillus, on histological sections, sputum and culture smears, and appositions.

### Method

- 1) Bring the sections to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 30 minutes.
- 5) Wash in distilled water and dry the slide with filter paper.
- 6) Dispense 10 drops of reagent C onto the section: leave to act for 1 minute.
- 7) Wash in tap water for 3 minutes.
- 8) Dispense 10 drops of reagent D onto the section: leave to act for 1 minute.
- 9) Wash in distilled water.
- 10) Dehydrate by means of the ascending series of alcohols, xylene and mounting medium.

LUNG

### Results



| **Result** | |
|---|---|
| Koch's bacillus, Hansen's bacillus and other acid-resistant elements | red – violet |
| Background contrast | light blue |

## Kits and solutions for enzyme histochemistry

Microscopic examination of sections of muscle biopsies is an essential tool in the diagnosis of neuromuscular disorders.

Any laboratory choosing to conduct histo-enzymatic tests on muscle biopsies encounters a series of problems:

- high toxicity of certain reagents
- solutions that are difficult and complex to standardize
- storage of solutions at -20 °C
- poor reproducibility of final results.

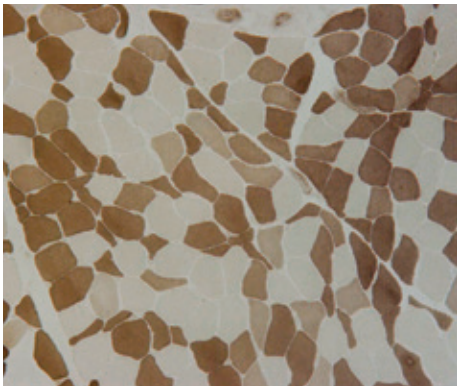
To overcome all these problems, Bio-Optica has developed ready-to-use kits for enzyme histochemistry. Enzyme histochemistry kits eliminate the difficulties and risks associated with the preparation of stain solutions, thus ensuring reproducible results.

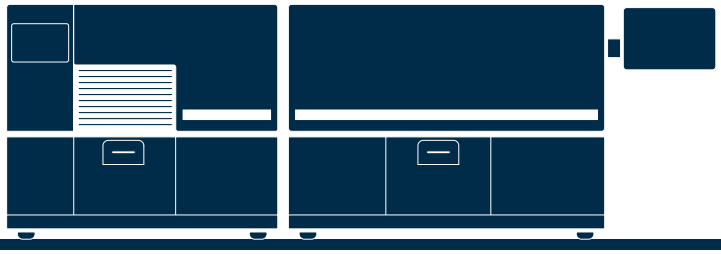
| PRODUCT AND APPLICATION | CODE |
|---|---|
| **ATPase** | 30-30125LY |
| Method of choice for determining the types of muscle fibers. For use with cryostat sections of striated muscle with a thickness of 8 µm. The solutions, supplied in ready-to-use form, make it possible to perform the method on three serial sections of the sample simultaneously. For correct application of the method, it is necessary to use reagents that have been brought to room temperature. | |

**Result**

| | |
|---|---|
| Nuclei | blue |
| **Section 10.4 - preincubation at pH 10.4** | |
| Type 1 fibers | white - beige |
| Type 2A fibers | brown - black |
| Type 2B fibers | brown - black |
| **Section 4.7 - preincubation at pH 4.7** | |
| Type 1 fibers | brown |
| Type 2A fibers | white - beige |
| Type 2B fibers | brown - dark brown |
| **Section 4.3 - preincubation at pH 4.3** | |
| Type 1 fibers | brown |
| Type 2A fibers | white - beige |
| Type 2B fibers | beige |

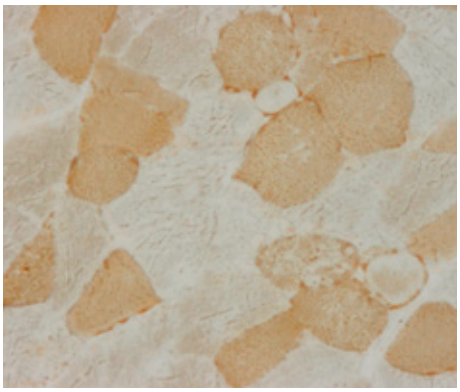
### ATPase





Bio-Optica

## Cytochrome C oxidase

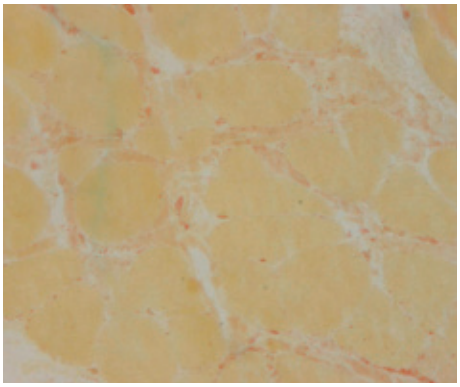


| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Cytochrome C oxidase** | 30-30115LY |
| Evaluation of Cytochrome C oxidase activity. | |

**Result**

| | |
|---|---|
| Activity of Cytochrome C oxidase | beige |
| positive | |

## Non-specific esterase

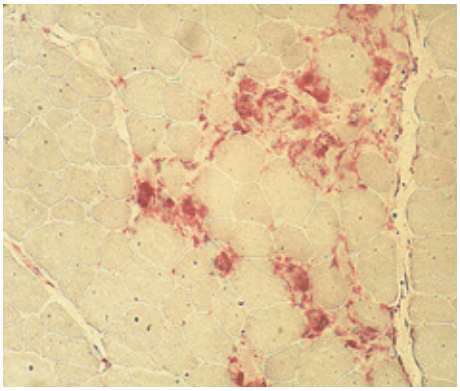


| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Non-specific esterase** | 30-30122LY |
| Highlighting positive enzymatic activity of esterase in denervated fibers. | |

**Result**

| | |
|---|---|
| Angular atrophic fibers | beige |
| Muscle plaques | brown |
| Lipofuscins | brown |
| Lysosomal activity | brown |

## Acid phosphatase



| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Acid phosphatase** | 30-30118LY |
| Highlighting enzymatic activity of acid phosphatase.<br>Present in macrophages and lysosomes; identifies necrosis and regeneration. | |

**Result**

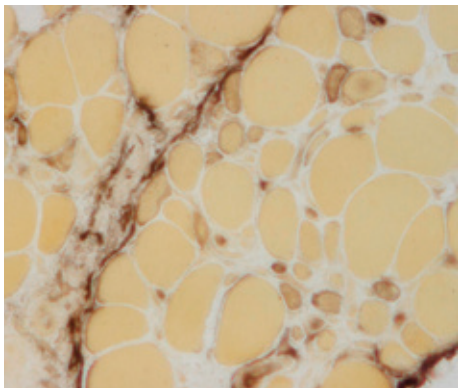
| | |
|---|---|
| Positive enzymatic activity of acid phosphatase | red |
| Background and nuclei | green |

## Alkaline phosphatase

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Alkaline phosphatase**<br>Evaluating enzymatic activity of alkaline phosphatase.<br>Useful for highlighting the sites of phagocytosis and inflammation in muscle biopsies. | 30-30121LY |

**Result**

| | |
|---|---|
| Positive enzymatic activity of alkaline phosphatase | black |
| Background | yellow ochre |

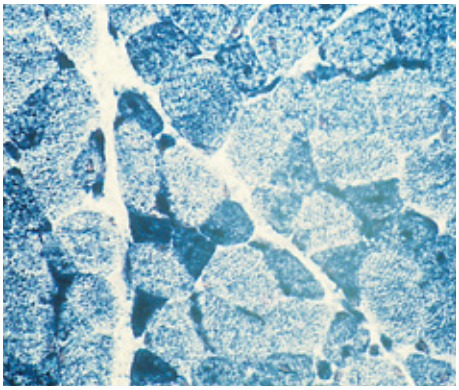


## Phosphofructokinase (PFK)

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Phosphofructokinase (PFK)**<br>Highlighting enzymatic activity of phosphofructokinase (PFK), useful for determining whether glycogen storage disease depends on a deficiency of phosphofructokinase or on other enzymes involved in the metabolism of glycogen. | 30-30117LY |

**Result**

| | |
|---|---|
| Positive PFK activity | dark blue |

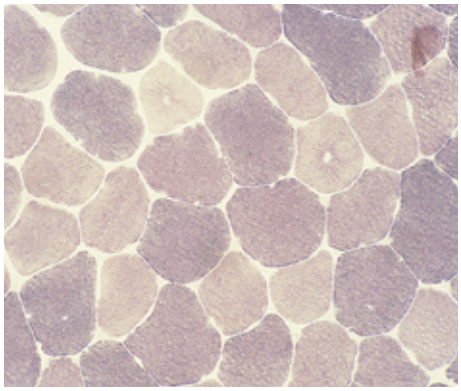


## Phosphorylase

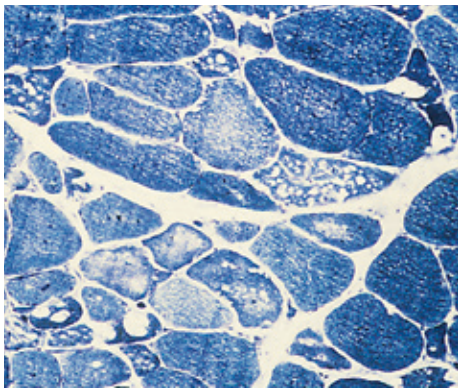
| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Phosphorylase**<br>Highlighting enzymes belonging to the phosphorylase class involved in glycogenolysis. | 30-30123LY |

**Result**

| | |
|---|---|
| Phosphorylase enzyme activity | various shades of blue |



## Myoadenylate deaminase

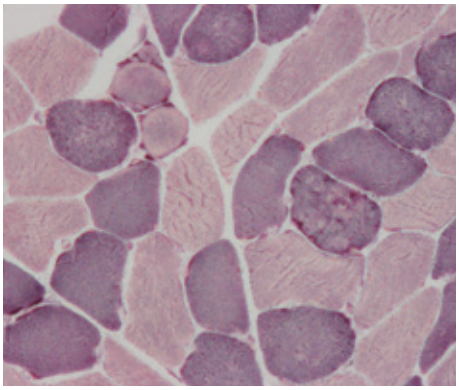


| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Myoadenylate deaminase** | 30-30116LY |
| Highlighting of enzymatic activity of myoadenylate deaminase (AMPDA). | |

**Result**

| | |
|---|---|
| Positive enzymatic activity of myoadenylate deaminase | blue |

## NADH diaphorase



| PRODUCT AND APPLICATION | CODE |
|---|---|
| **NADH diaphorase** | 30-30113LY |
| Evaluation of NADH diaphorase activity. Staining useful for distinguishing type 1 and type 2 muscle fibers, often used in conjunction with ATPase evaluation. | |

**Result**

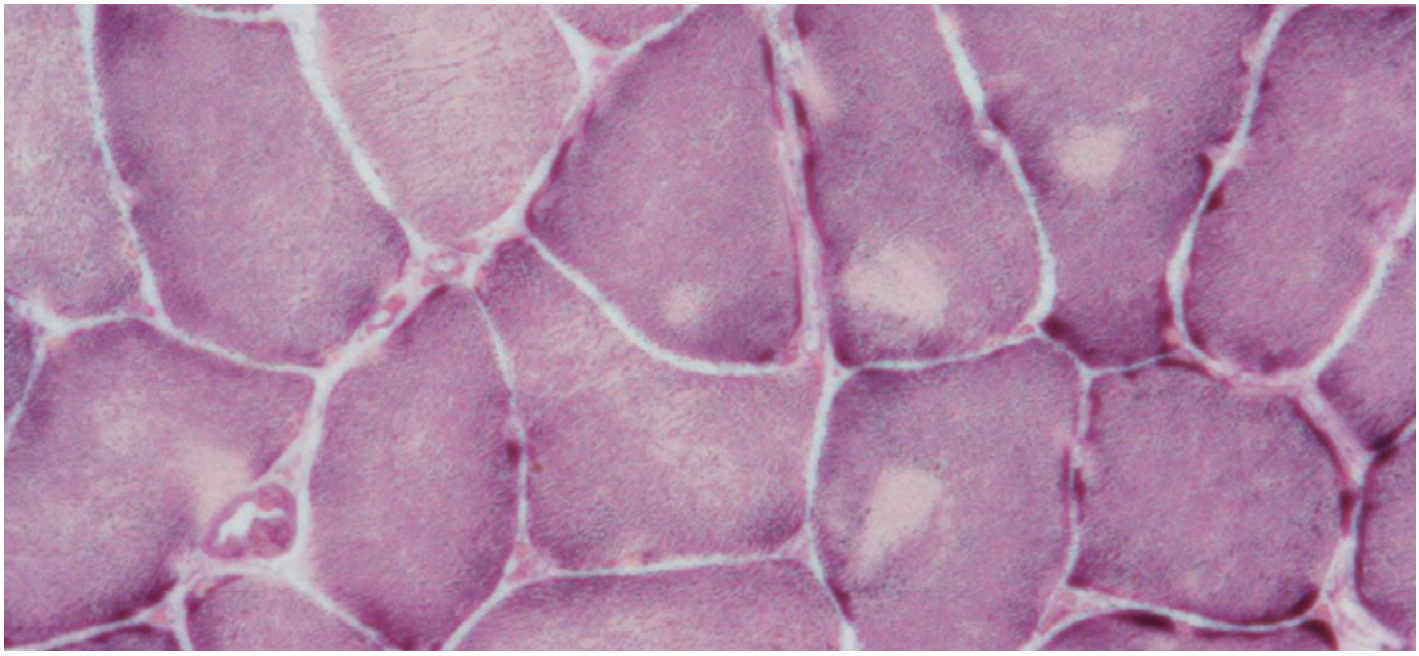
| | |
|---|---|
| Sites of enzymatic activity of NADH diaphorase | gray - blue |
| Type 1 fibers | dark blue |
| Type 2 fibers | light blue |

## Succinate dehydrogenase

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **Succinate dehydrogenase** | 30-30114LY |
| Evaluation of enzymatic activity of succinate dehydrogenase (SDH) detected specifically in the mitochondria. | |

**Result**

| | |
|---|---|
| Positive SDH activity | gray – blue |

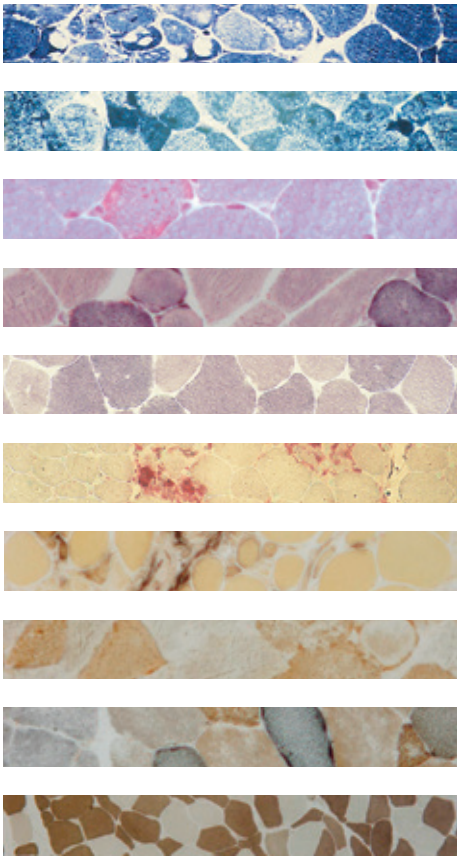


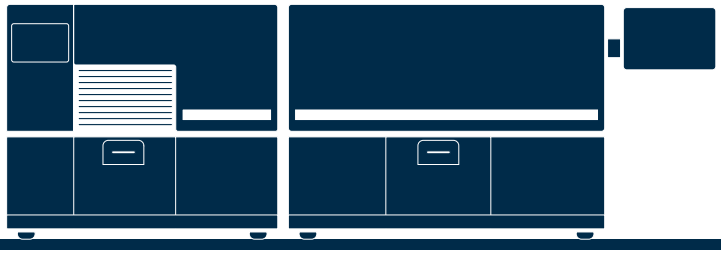
## Fixatives for enzyme histochemistry

| PRODUCT | PACK | DESCRIPTION | CODE |
|---|---|---|---|
| Backer fixative | 1x500 ml | Facilitates staining with Oil Red O | 30-30111 |
| Fixative for acid phosphatase | 1x100 ml | For use in enzyme histochemical staining for acid phosphatase | 30-30120 |

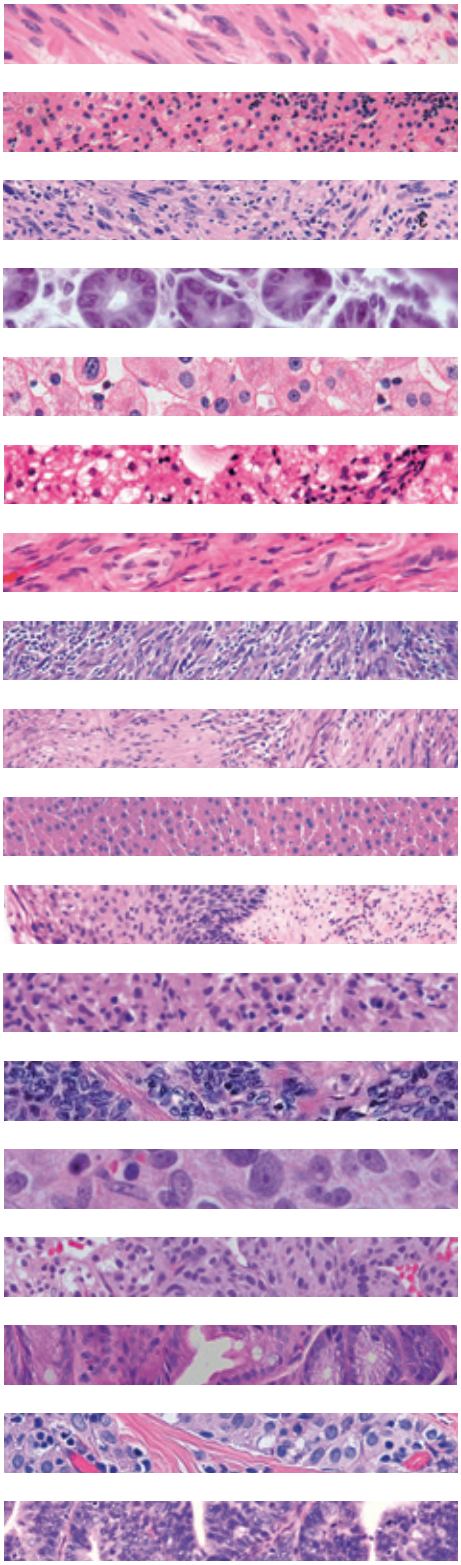
## Staining solutions for enzyme histochemistry

| PRODUCT | PACK | DESCRIPTION | CODE |
|---|---|---|---|
| Oil Red O solution | 1x100 ml | Specific stain for lipids | 30-30112 |
| Buffered methyl green solution | 1x100 ml | Green nuclear stain | 30-30119 |
| Gomori trichrome solution | 1x100 ml | Stain for the morphological study of muscle fiber and connective tissue | 30-30110 |





Bio-Optica



## Hematoxylin

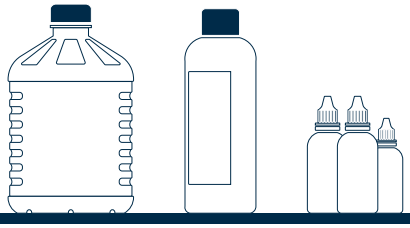
Bio-Optica provides operators with a complete range of nuclear stains; all solutions are stable and yield excellent cellular details.

| PRODUCT AND DESCRIPTION | PACK | CODE |
|---|---|---|
| **Mayer's hemalum** | 1x500 ml | 05-M06002 |
| Medium-intensity stain | 1x1 l | 05-06002/L |
| | 1x2,5 l | 05-06002E |
| **Harris hematoxylin for histology** | 1x500 ml | 05-M06004 |
| Stain with a high concentration of hematoxylin | 1x1 l | 05-06004/L |
| | 1x2,5 l | 05-06004E |
| **Carazzi's hemalum** | 1x500 ml | 05-M06012 |
| Lower concentration of hematoxylin | 1x1 l | 05-06012/L |
| **Gill 1 hematoxylin** | 1x1 l | 05-06013/L |
| Similar to Carazzi's hemalum | | |
| **Gill 2 hematoxylin** | 1x500 ml | 05-M06014 |
| Similar to Mayer's hemalum | 1x1 l | 05-06014/L |
| | 1x2,5 l | 05-06014E |
| **Gill 3 hematoxylin** | 1x500 ml | 05-M06015 |
| Similar to Harris hematoxylin for histology | 1x1 l | 05-06015/L |
| | 1x2,5 l | 05-06015E |
| **Weigert A ferric hematoxylin** | 1x150 ml | 05-B06008/A |
| For trichrome staining | 1x1 l | 05-06008A/L |
| **Weigert B ferric hematoxylin** | 1x150 ml | 05-B06008/B |
| For trichrome staining | 1x1 l | 05-06008B/L |
| **P.T.A.H. – Phosphotungstic Acid Hematoxylin** | 1x1 l | 05-10017/L |
| For staining muscle fibers and nerves | | |

## Histology solutions

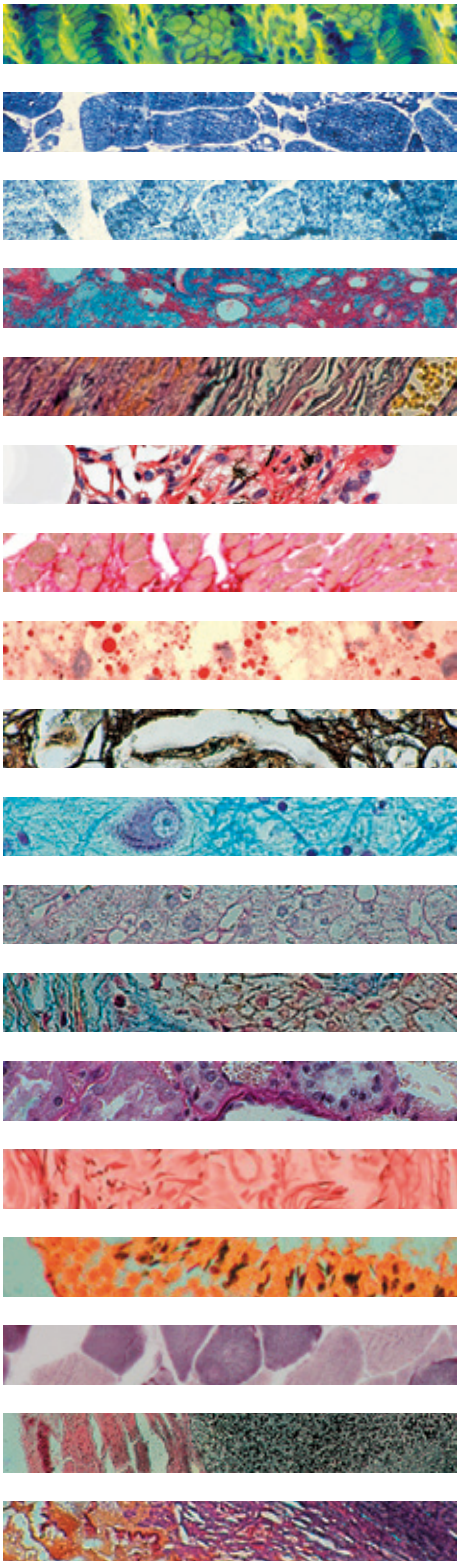
In addition to a number of important functional benefits (safety, time saving, reduced workload, easy estimation of costs per test), Bio-Optica's ready-to-use solutions yield excellent, reproducible results. These are essential characteristics for meeting the requirements of laboratories adhering to high quality standards.

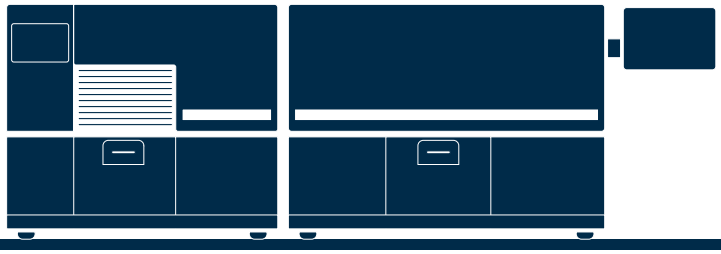
| PRODUCT AND DESCRIPTION | PACK | CODE |
|---|---|---|
| **Alcian Blue pH 1 Mowry** | 1x500 ml | 05-M26005 |
| **Alcian Blue pH 2,5 Mowry** | 1x150 ml | 05-B26003 |
| | 1x500 ml | 05-M26003 |
| | 1x1 l | 05-26003/L |
| **Alcian Blue pH 3,1 Mowry** | 1x150 ml | 05-B26002 |
| **Acridine Orange** | 1x150 ml | 05-B07013 |
| **Orange G Pearse** | 1x150 ml | 05-B29003 |
| **Auramine Rhodamine** | 1x150 ml | 05-B07014 |
| **Masson Aniline Blue** | 1x150 ml | 05-B10006 |
| **Cresyl Blue** | 1x150 ml | 05-B14002 |
| **Lactophenol Blue** | 1x150 ml | 05-B14004 |
| **New Methylene Blue** | 1x150 ml | 05-B14003 |
| **Loeffer Methylene Blue** | 1x1 l | 05-20009/L |





| | PRODUCT AND DESCRIPTION | PACK | CODE |
|---|---|---|---|
| ● | **Ziehl Neelsen Methylene Blue** | 1x150 ml | 05-B20003 |
| | | 1x1 l | 05-20003/L |
| ● | **Toluidine Blue** | 1x150 ml | 05-B23001 |
| | | 1x500 ml | 05-M23001 |
| ● | **Mayer's Carmalum** | 1x150 ml | 05-B07009 |
| ● | **Kluwer Barrera Cresyl violet** | 1x150 ml | 05-B16001 |
| ● | **Moore Cresyl violet** | 1x150 ml | 05-B14001 |
| ● | **Vogt Cresyl violet** | 1x150 ml | 05-B16002 |
| ● | **Crystal violet** | 1x150 ml | 05-B31001 |
| ● | **Eosin Y aqueous solution 1%** | 1x500 ml | 05-M10002 |
| | | 1x1 l | 05-10002/L |
| | | 1x2,5 l | 05-10002E |
| ● | **Eosin Y alcoholic solution 0,5%** | 1x150 ml | 05-B10003 |
| | | 1x500 ml | 05-M10003 |
| | | 1x1 l | 05-10003/L |
| | | 1x2,5 l | 05-10003E |
| ● | **Eosin Y Plus alcoholic solution** | 1x500 ml | 05-M11007 |
| | | 1x1 l | 05-11007/L |
| ● | **Eosin Phloxin solution** | 1x150 ml | 05-B10020 |
| | | 1x500 ml | 05-M10020 |
| | | 1x1 l | 05-10020/L |
| ● | **Erythrosine orange Dominici** | 1x500 ml | 05-M12003 |
| ● | **Fuchsin, phenicated Ziehl** | 1x500 ml | 05-M20007 |
| | | 1x1 l | 05-20007/L |
| ● | **Paraldehyde Fuchsin Gridley** | 1x150 ml | 05-B21002 |
| ● | **Fuchsin ponceau Masson** | 1x150 ml | 05-B10005 |
| ● | **Giemsa Pappenhaim** | 1x500 ml | 05-M12005 |
| | | 1x1 l | 05-12005/L |
| | | 1x2,5 l | 05-12005E |
| ● | **Luxol Fast Blu Kluwer Barrera** | 1x150 ml | 05-B18001 |
| ● | **May Grunwald Pappenheim** | 1x500 ml | 05-M12002 |
| | | 1x1 l | 05-12002/L |
| | | 1x2,5 l | 05-12002E |
| ● | **Mucicarmine solution** | 1x150 ml | 05-B26001 |
| ● | **Nuclear Fast Red** | 1x150 ml | 05-B07006 |
| | | 1x500 ml | 05-M07006 |
| ● | **Orcein Shikata solution** | 1x150 ml | 05-B11001 |
| ● | **Picrofuchsin Van Gieson** | 1x150 ml | 05-B10012 |
| | | 1x500 ml | 05-M10012 |
| | | 1x1 l | 05-10012/L |
| ● | **Picro Mallory – Aniline blue** | 1x150 ml | 05-B10016 |
| ● | **Picro Mallory – Orange G** | 1x150 ml | 05-B10015 |
| ● | **Picro Mallory – Acid Fuchsin** | 1x150 ml | 05-B10014 |
| ● | **Schiff's reagent Feulgen** | 1x500 ml | 05-M07007 |
| ● | **Schiff's reagent Hotchkiss McManus** | 1x500 ml | 05-M20001 |
| ● | **Congo Red Highman** | 1x150 ml | 05-B31003 |
| ● | **Safranin solution** | 1x1 l | 05-07008/L |
| ● | **Sudan III Herxheimer** | 1x150 ml | 05-B27001 |
| ● | **Sudan Black** | 1x150 ml | 05-B27002 |
| ● | **Turk solution** | 1x150 ml | 05-B25001 |
| ● | **Light green Goldner** | 1x500 ml | 05-M10008 |





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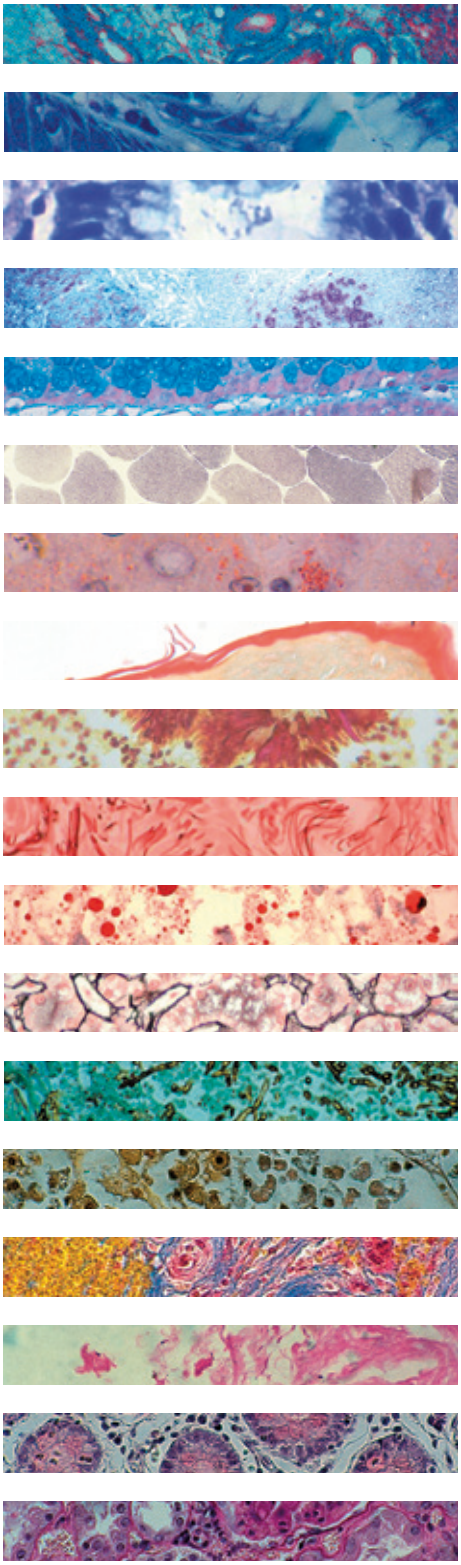


| PRODUCT AND DESCRIPTION | PACK | CODE |
|---|---|---|
| **Malachite green** | 1x500 ml | 05-M07011 |
| **Methyl Green Pyronin solution** | 1x150 ml | 05-B15003 |
| **Weigert long Pearse** | 1x150 ml | 05-B11004 |
| **Weigert rapid – Resorcin fuchsin** | 1x150 ml | 05-B11003 |

## Reagents

| PRODUCT AND DESCRIPTION | PACK | CODE |
|---|---|---|
| **Acetic acid 5%** | 1x500 ml | 05-M27030 |
| **Hydrochloric acid Hotchkiss McManus** | 1x500 ml | 05-M05001 |
| **Formic acid 20%** | 1x500 ml | 05-M27031 |
| **Phosphomolybdic acid Masson** | 1x500 ml | 05-M05003 |
| **Oxalic acid Mallory** | 1x500 ml | 05-M05006 |
| **Periodic acid 1%** | 1x500 ml | 05-M05030 |
| | 1x1 l | 05-05030/L |
| **Picric acid aqueous solution 1.2%** | 1x500 ml | 05-M05027 |
| **Picric acid alcoholic solution** | 1x500 ml | 05-M05022 |
| **Sulfuric acid 0.5%** | 1x150 ml | 05-B05007 |
| **Scott's water** | 1x500 ml | 05-M05023 |
| **Mallory Glycerinated Albumin** | 1x150 ml | 05-B04002 |
| **Alcohol Borax Mowry** | 1x150 ml | 05-B05011 |
| **Gelatin glu** | 1x150 ml | 05-B04004 |
| **Acid ethanol Heidenhain** | 1x500 ml | 05-M05009 |
| **Acid ethanol Weigert** | 1x500 ml | 05-M05014 |
| **Acid ethanol Ziehl Neelsen** | 1x1 l | 05-05012/L |
| **Lithium Carbonate solution** | 1x500 ml | 05-M05016 |
| **Lugol solution** | 1x500 ml | 05-M05015 |
| | 1x1 l | 05-05015/L |
| **Potassium Metabisulphite 0.5%** | 1x500 ml | 05-M05017 |
| **Sodium Thiosulfate 5%** | 1x500 ml | 05-M05019 |
| **Gram destaining solution** | 1x1 l | 05-30010/L |
| **Lugol's iodine** | 1x1 l | 05-20006/L |
| **Phosphate buffer pH 7 10x** | 1x1 l | 05-05029/L |
| **Ziehl-Neelsen destaining solution for Cryptosporidium** | 1x500 ml | 05-M05112 |

### Mount Quick Aqueous

Synthetic mounting medium, dissolved in water. For use when dehydration causes loss of staining characteristics.
Compatible with hematoxylin-eosin.

| PACK | CODE |
|---|---|
| 9x30 ml | 05-1740 |

### Immersion oil for microscopes

Type A oil for microscopes.

| PACK | CODE |
|---|---|
| 1x30 ml | 08-1730/A30 |
| 9x30 ml | 08-1730/A270 |

### BioMount HM

Synthetic mounting medium, dissolved in xylene, particularly indicated for use with the automatic coverslipper.

| PACK | CODE |
|---|---|
| 1x100 ml | 05-BMHM100 |
| 8x500 ml | 05-BMHM508 |

### SafeMount

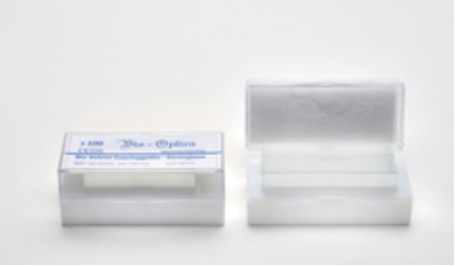
Synthetic mounting medium, dissolved in d-limonene, indicated for use with the automatic coverslipper.

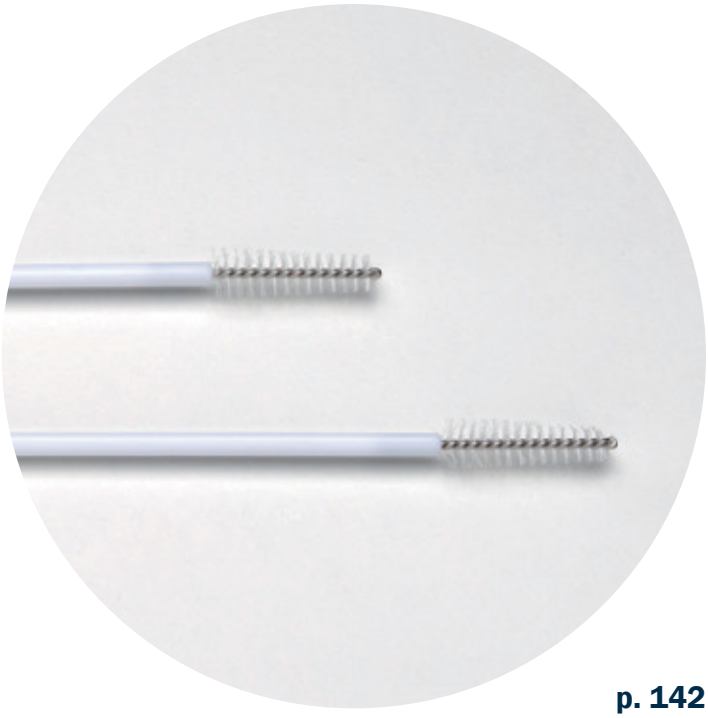
| PACK | CODE |
|---|---|
| 1x100 ml | 05-SM100 |

### Coverslips

Cleaned, degreased, high-quality coverglasses; free from dust, dirt and cracks.

| DIMENSIONS | PACK | CODE |
|---|---|---|
| 24 x 40 mm | 1000 pcs. | 09-2040 |
| 24 x 50 mm | 1000 pcs. | 09-2050 |
| 24 x 60 mm | 1000 pcs. | 09-2060 |





p. 142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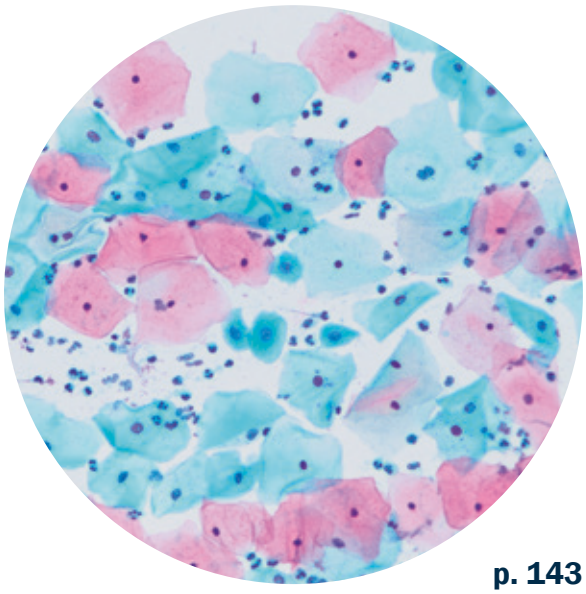
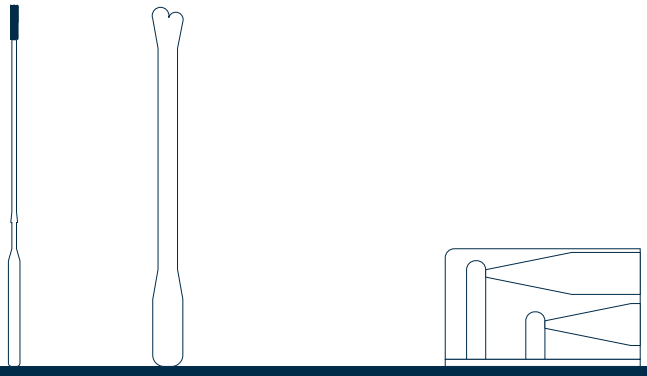
p. 143

p. 142



p. 143



## Bio Brush

Cytological sampling brush with soft bristles made of interwoven nylon.

| LENGTH | PACK | CODE |
|---|---|---|
| 19 cm | 9 cases of 20 pcs. | 14-360 |
| 19 cm | 108 cases of 20 pcs. | 14-370 |
| 19 cm | 500 pcs. | 14-365 |

## Ayre's spatulas

Wooden spatulas with no sharp edges for cytological sampling.

| LENGTH | PACK | CODE |
|---|---|---|
| 17,5 cm | 400 pcs. | 14-300 |

## Dual cyto cuvettes

Centrifugation cuvettes with dual chamber.

| PRODUCT | PACK | CODE |
|---|---|---|
| Medium absorption | 500 pcs. | 14-080 |
| High absorption | 500 pcs. | 14-070 |


## Fixatives

| PRODUCT AND DESCRIPTION | PACK | CODE |
|---|---|---|
| ● **Cy-Fix**<br>Fixative for liquid-based cytology | 54x25 ml<br>1x1 l<br>54x25 ml (colorless) | 05-01C50P<br>05-01C50L<br>05-01C50PN |
| ● **Cy-FixM**<br>Cytology fixative for mucus-rich samples | 54x25 ml<br>1x1 l | 05-01C51P<br>05-01C51L |
| ● **Bio-fix**<br>Spray fixative for vaginal cytology | 4x200 ml | 05-X200 |
| ● **Saccomanno's Fixative**<br>Fixative for samples with mucus | 1x1 l | 05-01043/L |
| ● **SaveCyt-U**<br>Fixative for urine | 8 Transport bags with 3 x 40 ml<br>30 boxes with 3 x 40 ml | 05-CS7212<br>05-CS7213 |

## Bio-Agar for embedding cytological samples

Aqueous gel for embedding cytological samples, encapsulates and retains cells during processing. Useful for processing centrifuged cells and fragile biopsies.

| PRODUCT | CODE |
|---|---|
| 15x10 ml | 05-9803S |

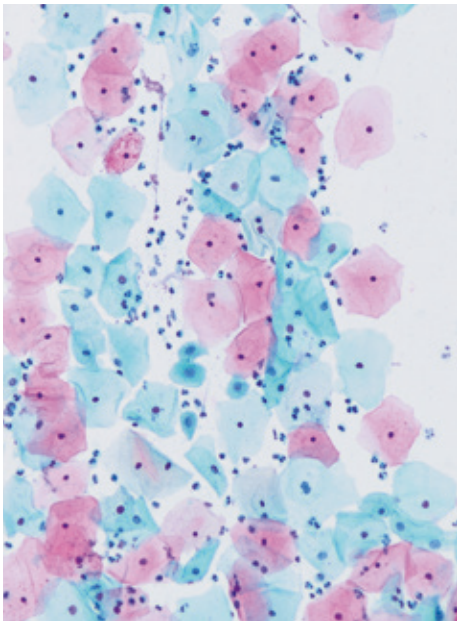
## Papanicolaou staining solutions

Fast staining, bright colors and excellent cellular details.
**The solutions are methanol-free.**

| PRODUCT | PACK | CODE |
|---|---|---|
| **Papanicolaou Harris hematoxylin** | 1x500 ml | 05-12011 |
| | 1x1 l | 05-12011/L |
| | 1x2,5 l | 05-12011E |
| **Papanicolaou OG6** | 1x500 ml | 05-12013 |
| | 1x1 l | 05-12013/L |
| | 1x2,5 l | 05-12013E |
| **Papanicolaou EA50** | 1x500 ml | 05-12019 |
| | 1x1 l | 05-12019/L |
| | 1x2,5 l | 05-12019E |
| **Papanicolaou EA65** | 1x500 ml | 05-12017 |
| | 1x1 l | 05-12017/L |
| | 1x2,5 l | 05-12017E |
| **Papanicolaou EA 31** | 1x500 ml | 05-12015 |
| **Orange II Papanicolaou** | 1x500 ml | 05-12014 |

## Fast Pap

Papanicolaou staining in less than 3 minutes; for all types of cytological samples.



| PRODUCT | CODE |
|---|---|
| For approximately 500 slides | 05-12055 |

## Isaach Wurch

Also known as “Fast Papanicolaou”. The method involves only two stains, one nuclear and one cytoplasmic.

| PRODUCT | PACK | CODE |
|---|---|---|
| **IWA** – Isaach Wurch nuclear stain | 1x1 l | 05-12020/L |
| **IW3** – Isaach Wurch cytoplasmic stain | 1x1 l | 05-12021/L |

## May Grünwald Giemsa solutions

Ready-to-use solutions for the differentiation of cellular elements in blood smears, spleen tissue samples, lymph node tissue and bone marrow biopsies.

| PRODUCT | PACK | CODE |
|---|---|---|
| **May Grünwald** | 1x500 ml | 05-M12002 |
| | 1x1 l | 05-12002/L |
| | 1x2,5 l | 05-12002E |
| **Giemsa** | 1x500 ml | 05-M12005 |
| | 1x1 l | 05-12005/L |
| | 1x2,5 l | 05-12005E |

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# May Grünwald Giemsa kit

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **May Grünwald Giemsa kit for smears** | 04-080802 |

| | |
|---|---|
| Minimum number of tests that can be performed | 50 preparations |
| Completion time | 35 minutes |
| Shelf life | 2 years |
| Storage conditions | 15-25°C |
| Additional equipment | 1000 ml calibrated flask, 100 ml graduated cylinder, 100 ml histology jar |

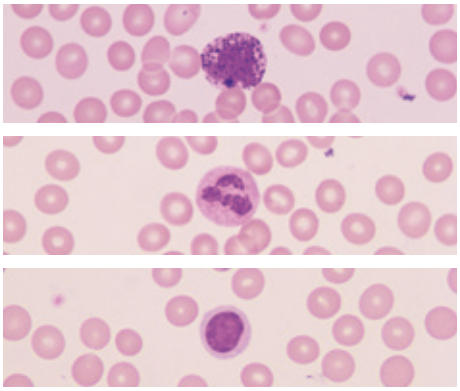
## Application

For differential staining of cellular elements in blood smears, and spleen, lymph node and bone marrow tissue samples.

## Method

- 1) Pour 100 ml of reagent B (buffer - concentrated solution) into a 1000 ml calibrated flask and top up to the required volume with tap water (buffer - work solution). Keep the two buffer solutions at 4° - 6° centigrade.
- 2) Dispense 10 drops of reagent A onto the slide; leave to act for 5 minutes. Note: Where considered appropriate, the above step can be performed by working in the jar without making any change to the times (in this case the reagent must be recovered).
- 3) Wash in running water for 1 minute.
- 4) Pour 10 ml of solution C into a cylinder containing 90 ml of buffer solution B (work solution), pour the mixture into a vertical histology jar and immerse the slide in it for 15 minutes.
- 5) Wash in running water for 1 - 2 minutes.
- 6) Wash the slide first in filter paper, then in the air for 5 minutes.

## Results



| **Result** | |
|---|---|
| Nuclei | violet red, pink |
| Basophilic cytoplasm | blue |
| Acidophilic cytoplasm | light red – pink |
| Polychromatic cytoplasm | gray – violet |
| Acidophilic granules | orange |
| Neutrophilic granules | brown – pink |
| Basophilic granules | dark violet |
| Azurophilic granules | purple – violet |

# MGG Quick Stain

| PRODUCT AND APPLICATION | CODE |
|---|---|
| **MGG Quick Stain** | 04-090805 |

| | |
|---|---|
| Minimum number of tests that can be performed | 100 |
| Completion time | 20 seconds |
| Shelf life | 2 years |
| Storage conditions | 15-25 °C |
| Additional equipment | Not required |

## Application

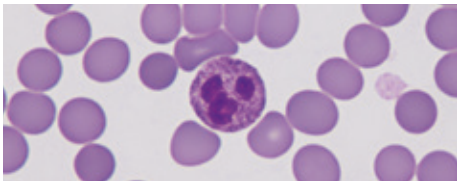
Rapid method for differential staining of formed blood elements and other air-dried cellular smears.

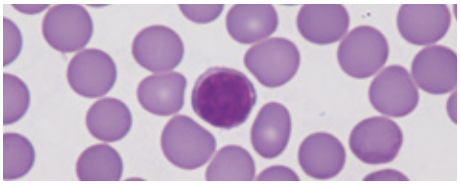
## Method

- 1) Dry the smear in air.
- 2) Immerse the slide 5 times for 1 second in solution A. After each immersion, wait a moment for the excess liquid to drain off.
- 3) Immerse the slide 5 times for 1 second in solution B. After each immersion, wait a moment for the excess liquid to drain off.
- 4) Immerse the slide 3-5 times for 1 second in the solution C. After each immersion, wait a moment for the excess liquid to drain off.
- 5) Wash in tap water.
- 6) Dry in the air (do not use heat sources, ovens or plates).

## Results

| **Result** |
|---|
| The colors and details are superimposable on those of May Grunwald Giemsa standard staining |



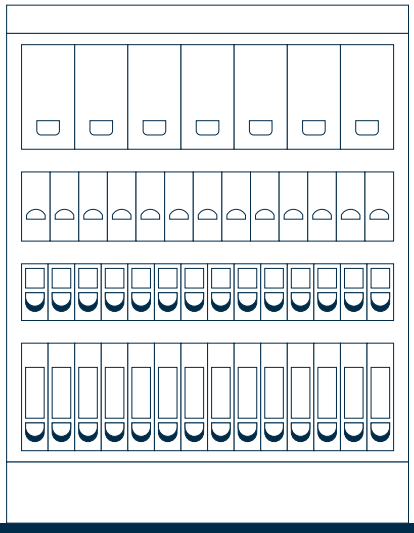


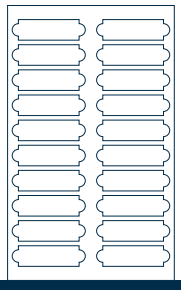
p. 154

p. 148

p. 150

p. 153





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## High-capacity filing cabinets

Painted steel filing cabinets with blue epoxy powder coating, electrostatically applied, without solvents for environmental integrity, resistant to common chemical aggression.
Each drawer is mounted on sliding guides, thus providing access to the entire surface area.
Its interior is equipped with plastic trays (code 03-C28N) for more effective archiving of both slides and embedded blocks.
They are equipped with central locking, available in three versions:

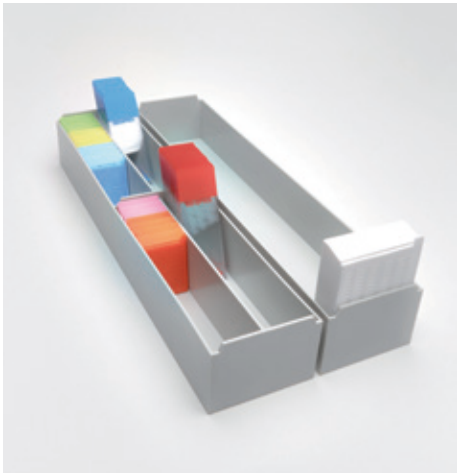
- Lock with security cylinder, including anti-tip system (only possible to open one drawer at a time)
- Code lock: uses a numerical combination in place of a key
- Remote lock: electronic system with manual remote controls

| PRODUCT | CAPACITY (nr. DISHES) | DRAWERS | DIMENSIONS (1023x725xh) | WEIGHT KG | CODE |
|---|---|---|---|---|---|
| For slides | 67200 (140) | 5 | 700 mm | 150 | 03-V77000B |
| | 94080 (196) | 7 | 1000 mm | 196 | 03-V109000B |
| | 134400 (280) | 10 | 1325 mm | 267 | 03-V155000B |
| | 147840 (308) | 11 | 1450 mm | 292 | 03-V171000B |
| | 161280 (336) | 12 | 1625 mm | 300 | 03-V186500B |
| For cassettes | 26880 (336) | 12 | 1000 mm | 274 | 03-B34000B |
| | 31360 (392) | 14 | 1150 mm | 316 | 03-B39650B |
| | 35840 (448) | 16 | 1325 mm | 351 | 03-B45320B |
| | 40320 (504) | 18 | 1450 mm | 402 | 03-B51000B |
| | 44800 (560) | 20 | 1625 mm | 447 | 03-B56600B |
| For cassettes (trays stacked) | 22400 (280) | 5 | 700 mm | 150 | 03-V77000B-2 |
| | 31360 (392) | 7 | 1000 mm | 196 | 03-V109000B-2 |
| | 44800 (560) | 10 | 1325 mm | 267 | 03-V155000B-2 |
| | 49280 (616) | 11 | 1450 mm | 292 | 03-V171000B-2 |
| | 53760 (672) | 12 | 1625 mm | 300 | 03-V186500B-2 |
| | 44800 | 14 | 1450 mm | 338 | 03-V92B23B-2 |
| For slides and cassettes | 80640 S<br>17920 C | 14<br>(S6 and C8) | 1450 mm | 338 | 03-V92B23B |
| | 80640 S<br>22400 C | 16<br>(S6 and C10) | 1550 mm | 400 | 03-V80B22B |

## Wheeled filing cabinets

Archives for slides or blocks equipped with wheels and handles for transport.
The top of the filing cabinet is equipped with a blue grooved mat with containment lip so that trays of slides can be placed on it without slipping and falling in transit.
There are also three different types of lock to choose from for these filing cabinets:

- Key lock
- Code lock
- Remote lock



| PRODUCT | CAPACITY | DRAVERS | DISHES | DIMENSIONS MM | WEIGHT KG (EMPTY) | CODE |
|---|---|---|---|---|---|---|
| For cassettes | 11520 | 12 | 144 | 564x725x1000 | 188 | 03-B13440B |
| For slides | 51840 | 9 | 108 | 564x725x1000 | 159 | 03-V60480B |
| For slides and cassettes | 34560 slides 3840 cassettes | 10 (6 for slides and 4 for cassettes) | 120 | 564x725x1000 | 168 | 03-V40B4B |

### Accessories for high-capacity filing cabinets

| PRODUCT | CODE |
|---|---|
| Tray for slides and embedded blocks | 03-C28N |
| Tray slides and cassettes for large samples | 03-C28S |
| Steel base for filing cabinets, designed for use with pallet trucks | 03-90320120 |
| Separation spring - 4 pcs | 03-500-MDL |
| Key lock | 03-820.002 |
| Code lock | 03-820.011 |
| Remote lock for standard filing cabinets | 03-ER820013 |
| Mobile remote lock for wheeled filing cabinets | 03-ER820019 |

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## Modular filing cabinets

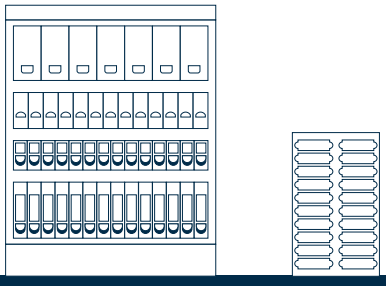
### Istoglass - Istobloc

Modular systems for filing slides and paraffin-embedded preparations.
The Istoglass modules (for slides) and Istobloc modules (for cassettes) are made entirely of white enameled metal.
They consist of sliding drawers fitted on guides. Each block of Istoglass/Istobloc modules requires completion with a base and top.
The special 7-drawer version for large slides or super mega cassettes retains the same modular form.
The spacer spring is recommended for keeping the slides in a vertical position with the correct spacing between them.

**Characteristics**

| | |
|---|---|
| Dimensions (W x D x H): | Istoglass - 490 x 490 x 140 mm<br>Istobloc - 490 x 490 x 90 mm |
| Weight per module: | 13 kg empty, approximately 20 kg with cassettes, approximately 40 kg with slides |
| Capacity per module: | Istoglass - up to 5000 slides<br>Istobloc - up to 860 cassettes or 540 rings |
| Recommended stacking of modules: | Up to 10 Istoglass<br>15 Istobloc |
| Number of drawers per module: | 14 |

| PRODUCT | CODE |
|---|---|
| Istoglass for slides | 03-5000-14 |
| Istobloc for cassettes | 03-B900 |
| Istoglass with 7 drawers for large samples | 03-7000 |
| Base | 03-5000-BA |
| Top | 03-5000-CO |
| Spacer spring | 03-5000-MD |

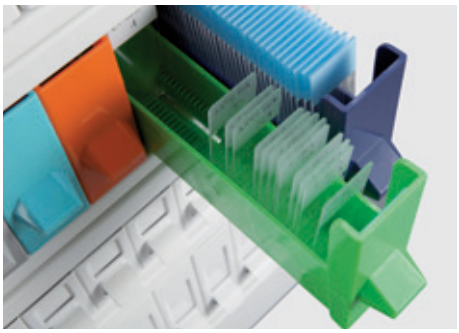




| PRODUCT | | CODE |
|---|---|---|
| Base | | 03-5000-BA |
| Top | | 03-5000-CO |
| Metal structure | | 03-COLOR13 |
| Plastic drawer | white with dividers for slides | 03-CA7100S |
| | orange with dividers for slides | 03-CA7110S |
| | light blue with dividers for slides | 03-CA7120S |
| | yellow with dividers for slides | 03-CA7130S |
| | lilac with dividers for slides | 03-CA7140S |
| | pink with dividers for slides | 03-CA7150S |
| | green with dividers for slides | 03-CA7160S |
| | gray with dividers for slides | 03-CA7180S |
| | white | 03-CA7100 |
| | orange | 03-CA7110 |
| | blue | 03-CA7120 |
| | yellow | 03-CA7130 |
| | lilac | 03-CA7140 |
| | pink | 03-CA7150 |
| | green | 03-CA7160 |
| | gray | 03-CA7180 |
| Colorteca with 13 drawers | blue | 03-COLOR13/B |
| | gray | 03-COLOR13/G |
| | lilac | 03-COLOR13/L |
| | orange | 03-COLOR13/O |
| | pink | 03-COLOR13/P |
| | green | 03-COLOR13/V |
| | white | 03-COLOR13/W |
| | yellow | 03-COLOR13/Y |

## Colorteca

Modular system for filing slides and paraffin-embedded preparations.
The plastic drawers are specifically designed to contain both slides and embedded preparations.
The drawers are available in 8 different colors, which can easily be associated with the colors of the slides or blocks stored in them.
Each module consists of 13 drawers and each drawer can contain approximately 330 slides or 48 blocks or 24 rings.
The external dimensions of each module are the same as those of the Istoglass modules (code 03- 5000-14) and Istobloc modules (code 03- B900); this means you can stack Colorteca on top of an existing filing cabinet.



Bio - Optica

## Bio Block

Modular plastic 8-drawer filing cabinet for paraffin-embedded preparations (cassettes or rings). Each drawer has seven compartments. The total capacity of one Bio Block is approximately 2,250 cassettes. Bio Block is outstandingly modular thanks to its handy fastening system, which makes it possible to add modules both vertically and horizontally.

| DIMENSIONS | PACK | CODE |
|---|---|---|
| 240x300x400 mm | 1 pc. | 03-3000 |

## Cartoglass - Cartoblock

Modular systems in strong, lightweight cardboard, which are easy to transport even when completely filled.
The Cartoglass modules (for slides) and Cartobloc modules (for cassettes) are equipped with internal partitions, also made of cardboard, so as to create 36 compartments in the Cartoglass module and 16 compartments in the Cartobloc module.

| PRODUCT | CAPACITY PER MODULE | DIMENSIONS | PACK | CODE |
|---|---|---|---|---|
| Cartoglass | 3000 slides | 290x400x80 mm | 10 pcs. | 03-4015-BA |
| Cartoblock | 320 cassettes<br>220 rings | 290x400x45 mm | 10 pcs. | 03-4010-BC |
| Top | | 290x400x15 mm | 10 pcs. | 03-4020-BO |

## Plastic slide boxes

Stackable, made of shockproof material. Supplied complete with record form for the classification of preparations.

| PRODUCT | DIMENSIONS | PACK | CODE |
|---|---|---|---|
| 25 slides | 98x83x38 mm | 1 pc. | 44-13071 |
| 50 slides | 230x97x35 mm | 1 pc. | 44-13072 |
| 100 slides | 230x180x35 mm | 1 pc. | 44-13073 |

## Cardboard slide trays

Trays for classifying and filing standard size slides (25x75 mm or 26x76 mm).

| PRODUCT | PACK | DIMENSIONS | CODE |
|---|---|---|---|
| 1 slide with lid | 1 pc. | 102x45 mm | 09-0011 |
| 2 slides with lid | 1 pc. | 102x94 mm | 09-0002 |
| 3 slides with lid | 1 pc. | 102x105 mm | 09-0003 |
| 6 slides with lid | 1 pc. | 213x102 mm | 09-0006 |
| 10 slides with lid | 1 pc. | 342x102 mm | 09-0010 |
| 20 slides | 1 pc. | 342x205 mm | 09-0000 |
| 20 slides with dividers | 1 pc. | 342x205 mm | 09-0020 |
| 20 slides with lid | 1 pc. | 342x205 mm | 09-0001 |
| 20 slides with dividers and lid | 1 pc. | 342x205 mm | 09-0023 |

## Plastic slide trays

Trays for classifying and filing standard size slides (25x75 mm or 26x76 mm).

| PRODUCT | PACK | DIMENSIONS | CODE |
|---|---|---|---|
| 10 slides | 40 pcs. | 95x340 mm | 44-13080 |
| 20 slides | 20 pcs. | 190x340 mm | 44-13081 |
| 40 slides | 10 pcs. | 395x340 mm | 44-13082 |
| 20 slides with lid | 1 pc. | 190x290 mm | 09-57620 |

## Slide envelope

Polystyrene, capacity 4/8 slides.

| PACK | DIMENSIONS | CODE |
|---|---|---|
| 100 pcs. | 150x110 mm | 14-990 |

## Slide mailers

Made of shock-proof plastic.

| PRODUCT | PACK | DIMENSIONS | CODE |
|---|---|---|---|
| With press cap x5 slides | 50 pcs. | 28x82x16 mm | 09-000530 |
| With screw cap x5-10 slides | 10 pcs. | ø 40xh 90 mm | 44-13061 |
| Snap-on x1 slide | 500 pcs. | 50x100x6 mm | 44-13031 |
| Snap-on x2 slides | 500 pcs. | 73x85x6 mm | 44-13041 |
| Snap-on x3 slides | 100 pcs. | 100x84x6 mm | 44-13051 |

Bio-Optica

## Safety cabinets with extractor system

Cabinets with extractor system, designed for storing histological samples preserved in formalin, or storing chemicals and solvents.

**Construction features**

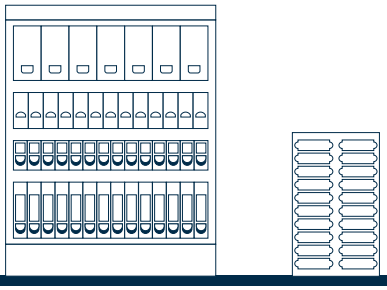
- Electrogalvanized steel structure
- Three tray-type shelves, height-adjustable
- Leaf doors made of safety glass
- Control panel with soft-touch keypad for setting the desired operating parameters

**Extractor system**

- Non-sparking extractor
- Alumina pellet filters for formaldehyde
- Manifold for connection to central extractor systems


| PRODUCT | EXTERNAL DIMENSIONS | INTERNAL DIMENSIONS | CODE |
|---|---|---|---|
| Cabinet 700 | 700 x 550 x 1900 mm | 680x490x1580 mm | 50-070-601 |
| Cabinet 1000 | 1000 x 550 x 1900 mm | 980x490x1580 mm | 50-100-601 |
| Cabinet 1200 | 1200 x 550 x 1900 mm | 1180x490x1580 mm | 50-120-601 |

| ACCESSORIES | CODE |
|---|---|
| Formalin filter | 50-F001 |
| Solvent filter | 50-F002 |
| HEPA filter | 50-F006 |
| Palletizable plinth | 50-600-053 |



## Contents


### A

Absolute AlcoolPath 38
Absolute Dehyol 38
Acetic acid 138
Acid phosphatase 132
Acridine Orange 136
Afog 70
AgNOR 71
Alcian Blue 72
Alcian Blue – solutions 136
Alcian Yellow Toluidine Blue 77
Alcohol Borax 138
AlcoolPath 95 38
Alkaline phosphatase 133
Amylase 78
ATPase 131
Auramine Rhodamine 136
AUS124 stainer 59
AUS212 stainer 58
AUS240 stainer 56
Autopsy saw 23
Azan Trichrome 79

### B

B 5 29
Backer fixative 135
Bench surface protection paper 65
Bench Tech 61
Benchtop fume hood 61
Bielschowsky 80
Bio-Agar 142
Bio-Block 152
Bio Brush 142
Bio Cassettes 32
Bio Cassettes for printers 31
Bio Clear 39
Biodec R 29
Bio-Fix 142
Bio Marking Dyes 26
Bio Molds 45
BioMount HM 139
Bio-Pads 25
BioParaFree 52
Biopsy bags 33
Biopsy Cassettes 32
Biopsy pads 33
Bouin 29
Bouin Hollande sublimate 29
Brown-Brenn 81
Brushes 52

## C

| | |
|---|---|
| Cardboard filing cabinets | 152 |
| Carnoy | 29 |
| Carson | 29 |
| Cassettes for printers | 31 |
| Cervical spatulas | 142 |
| Chemical fume hood | 60 |
| Colloidal iron | 84 |
| Colorteca | 151 |
| Congo Red | 115 |
| Congo Red solution | 137 |
| Containers pre-filled with formalin | 28 |
| Coverslips | 139 |
| Cresyl blue | 136 |
| Cresyl violet | 137 |
| Crio Clor 0,3 | 53 |
| Cryo spray | 53 |
| Cryostat oil | 53 |
| Crystal violet | 137 |
| Cut-resistant gloves | 24 |
| CVR909 coverslipper | 57 |
| Cy-Fix | 142 |
| Cytochrome C oxidase | 132 |

## D

| | |
|---|---|
| Dane | 82 |
| Decalcifying agents | 29 |
| Dehyol 70 | 38 |
| Dehyol 95 | 38 |
| Diastase | 83 |
| Dispomold | 45 |
| Downdraft table | 22 |
| DP8R paraffin dispenser | 44 |
| Dual Cyto Cuvette | 142 |
| Dubosq Brezil | 29 |

## E

| | |
|---|---|
| Electrolytic decalcifying agent | 29 |
| Embedding Cassettes | 33 |
| Embedding station | 42 |
| Endokit | 25 |
| Eosin | 137 |
| Erythrosine | 137 |
| Esterase | 132 |

## F

| | |
|---|---|
| FAA fixative | 29 |
| Fast Pap | 143 |
| Feulgen | 85 |



Filing cabinets with extractor 154
Fixative for alkaline phosphatase 135
Forceps 44
Formaldehyde, 38-40% 29
Formalin, 10% acetate buffer 28
Formalin, 10% buffered neutral 28
Formalin, 10% saline 28
Formalin, concentrated buffered neutral 29
Formic acid 138
Fouchet-Van Gieson 86
Freezing plate 49
Fuchsin, phenicated 137

**G**

Gelatin glue 138
Giemsa for HP 88
Giemsa Pappenheim 137, 143
Glass staining set 64
Gomori Trichrome 135
Gooding-Stewart 29
Gordon-Sweet 89
Gram 90
Gram destaining solution 138
Grimelius 91
Grocott 92
Grossing board 25

**H**

Heated forceps 44
Hemalum – solutions 136
Hematoxylin – solutions 136
High-capacity filing cabinets 148
HistoCold 12
Histology cassettes 32
Histology fume hood 20
Histology oven 51
Hollande 29
Hot plate 51
Hyaluronidase 94
Hydrochloric acid 138

**I**

Immersion oil 138
Immunofix 29
Isaach Wurch 143
Istobloc 150
Istoglass 150

## K

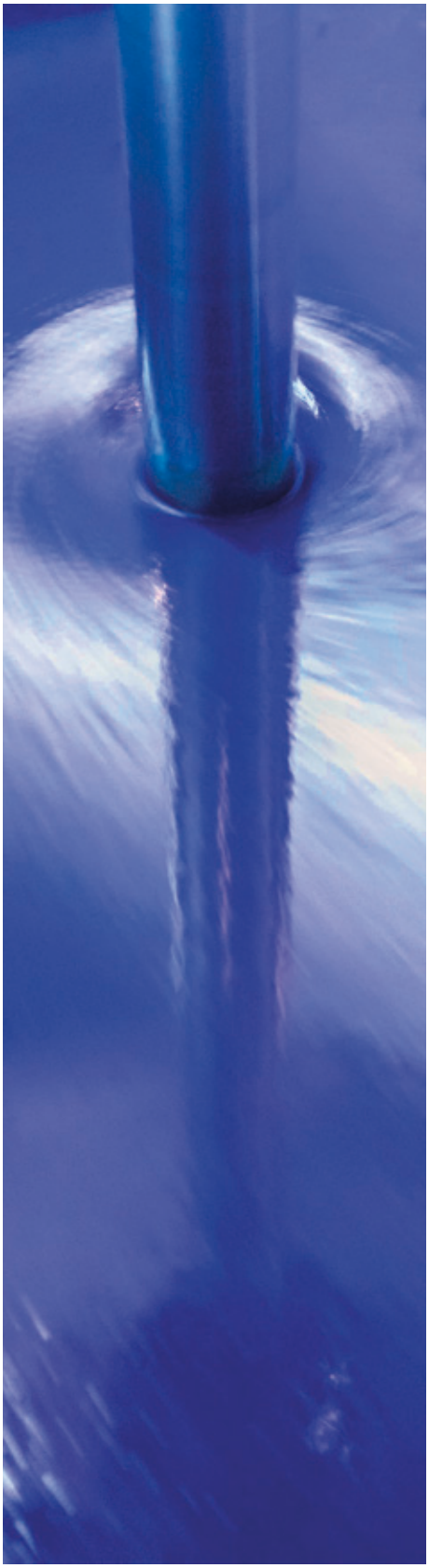

| | |
|---|---|
| Killik | 53 |
| Kit for extempore applications | 114 |
| Klessidra | 16 |
| Klessidra 2.0 | 14 |
| Klessidra 3.0 | 17 |
| Klessidra BN | 16 |


## L


| | |
|---|---|
| Lab Tech | 60 |
| Lactophenol Blue | 136 |
| Light green | 137 |
| Lithium Carbonate | 138 |
| Lugol's iodine | 138 |
| Luxol Fast Blue | 96 |
| Luxol Fast Blue solution | 137 |


## M


| | |
|---|---|
| Mailers | 153 |
| Malachite green | 138 |
| Mallory Glycerinated Albumin | 138 |
| Mallory's Trichrome | 97 |
| Manual staining kit | 68 |
| Manual staining set | 62 |
| Markers for margins | 26 |
| Masson Aniline Blue | 136 |
| Masson Fontana | 98 |
| Masson Trichrome | 99 |
| Masson-Goldner Trichrome | 100 |
| Mayer's Carmalum | 137 |
| May Grunwald Giemsa for sections | 101 |
| May Grunwald Giemsa for smears | 144 |
| May Grunwald Pappenheim | 137, 143 |
| Mega cassettes | 33 |
| Metal mesh gloves | 24 |
| Methenamine Silver | 118 |
| Methylene Blue | 136 |
| Methyl Green Pyronin | 120 |
| Methyl Green Pyronin solution | 138 |
| Methyl green – buffered solution | 135 |
| MGG Quick Stain | 145 |
| Microscope slides | 67 |
| Microtome Bench | 48 |
| Microtome oil | 53 |
| Mielodec | 29 |
| Modular filing cabinets | 150 |
| Molds for embedding | 45 |
| Mount Quick Aqueous | 139 |
| Mucicarmine | 102 |


Mucicarmine solution 137
Mucosectomy kit 25
Multi-purpose containers 28
Myoadenylate Deaminase 134

**N**

NADH Diaphorase 134
Nitroblue Tetrazolium 103

**O**

Oil Red O 104
Oil Red O – solution 135
Orcein 105
Orcein solution 137
Osteodec 29
Oxalic acid 138

**P**

Pads for formaldehyde 25
Papanicolaou solutions 143
Pap Pen 65
Paraffins 39
Paraldehyde Fuchsin 87
Paraldehyde Fuchsin solution 137
PAS 106
PAS-A 109
PAS Alcian 76
PAS Morel Maronger 107
PAS Pearse 108
Pearse Orange G 136
Pen with diamond tip 65
Pens for cassettes 65
Periodic acid 138
Perls 110
Perls – Van Gieson 111
Phosphate buffer 138
Phosphofructokinase 133
Phosphomolybdic acid 138
Phosphorylase 133
Phosphotungstic Acid Hematoxylin 113
Picric acid 138
Picrofuchsin 137
Picro Mallory solutions 137
Picro Mallory Trichrome 112
Picrosirius Red 117
Plastic staining set 64
Potassium Metabisulphite 138
PTAH 113

**R**

| | |
|---|---|
| Rapid Frozen Sections | 114 |
| Receiving Tech | 22 |

**S**

| | |
|---|---|
| Saccomanno fixative | 142 |
| SafeMount | 139 |
| Safranin solution | 137 |
| SaveCyt-U | 142 |
| Schiff's reagent | 137 |
| Scott’s water | 138 |
| Screen-printed multi-purpose containers | 28 |
| Silver impregnation | 95 |
| Single-use aprons | 24 |
| Sirius Red | 116 |
| Slide adapter for large samples | 64 |
| Slide boxes | 152 |
| Slide envelope | 153 |
| Slide Master | 63 |
| Slide trays | 153 |
| Sodium Thiosulfate | 138 |
| Staining jars | 64 |
| Steel blades | 52 |
| Succinate Dehydrogenase | 134 |
| Sudan III | 137 |
| Sudan Black | 137 |
| Sulfuric acid | 138 |
| Super Mega Cassettes | 33 |

**T**

| | |
|---|---|
| Timer | 64 |
| Toluidine Blue | 137 |
| Transport bag | 24 |
| Trimming Tech | 20 |
| Tube Checker | 65 |
| Turk solution | 137 |

**U**

| | |
|---|---|
| Unyhol | 39 |

**V**

| | |
|---|---|
| Van Gieson Trichrome | 119 |
| Verhoeff | 121 |
| Von Kossa | 122 |
| VTP300 and FTP300 processor | 36 |
| VTP360 and FTP360 processor | 37 |


## W


| | |
|---|---|
| Warthin-Starry | 123 |
| Water bath | 50 |
| Weigert | 124 |
| Weigert long Pearse | 138 |
| Weigert rapid – Resorcin fuchsin | 138 |
| Weigert Van Gieson | 126 |
| Wilson's Disease Stain | 128 |


## X


| | |
|---|---|
| X-Free | 39 |
| Xylene for histological applications | 39 |


## Z


| | |
|---|---|
| Ziehl-Neelsen | 129 |
| Ziehl-Neelsen destaining solution | 138 |
| Ziehl-Neelsen Fite | 130 |

Design, art direction and coordination by Giulia Vrespa - Photo by Studioneon