

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!





Research and development



Reagents production

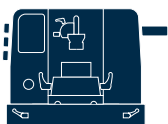
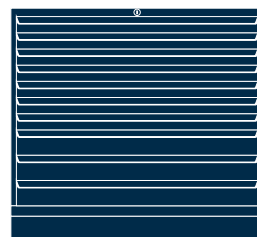
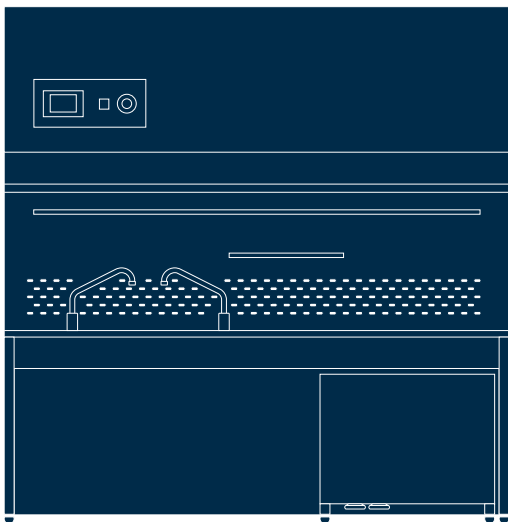




Sales and warehouse department



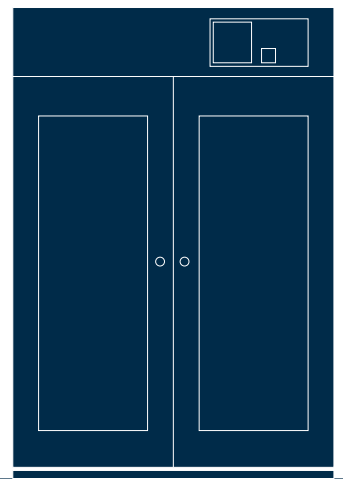
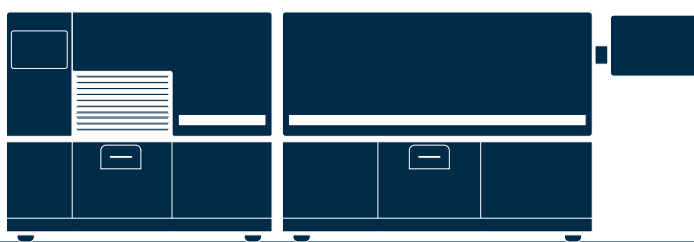
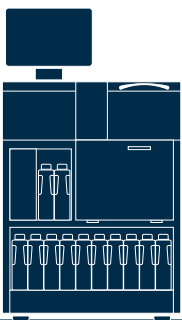
Bio - Optica





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

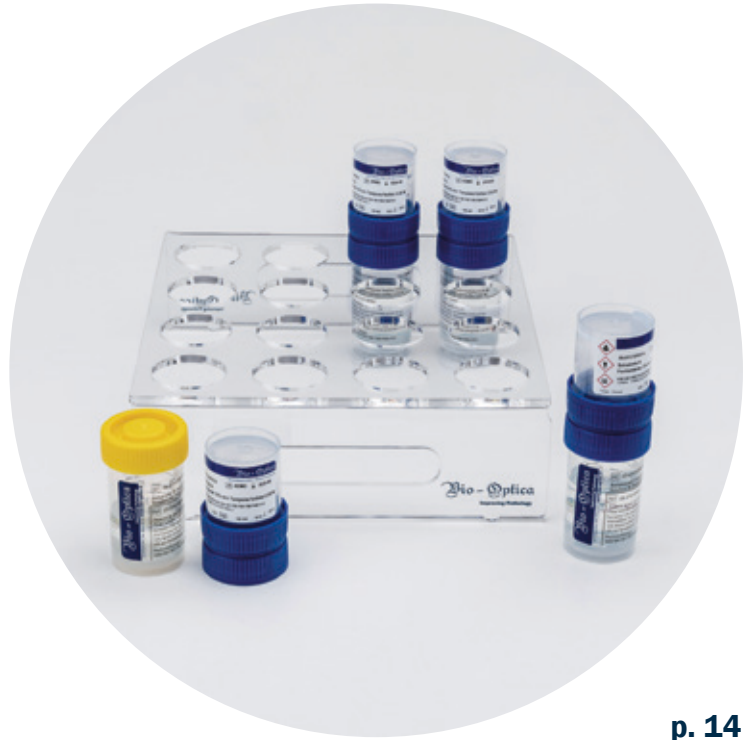


p. 12

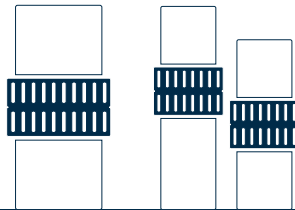




p. 17

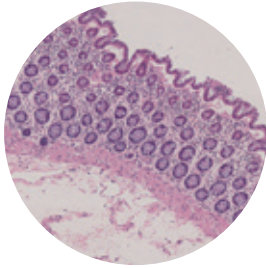


p. 14

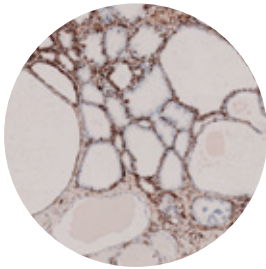




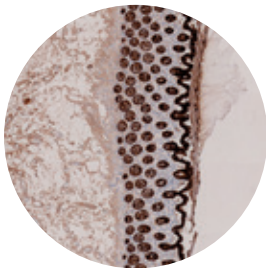
Bio-Optica



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



Safe storage and transport of samples





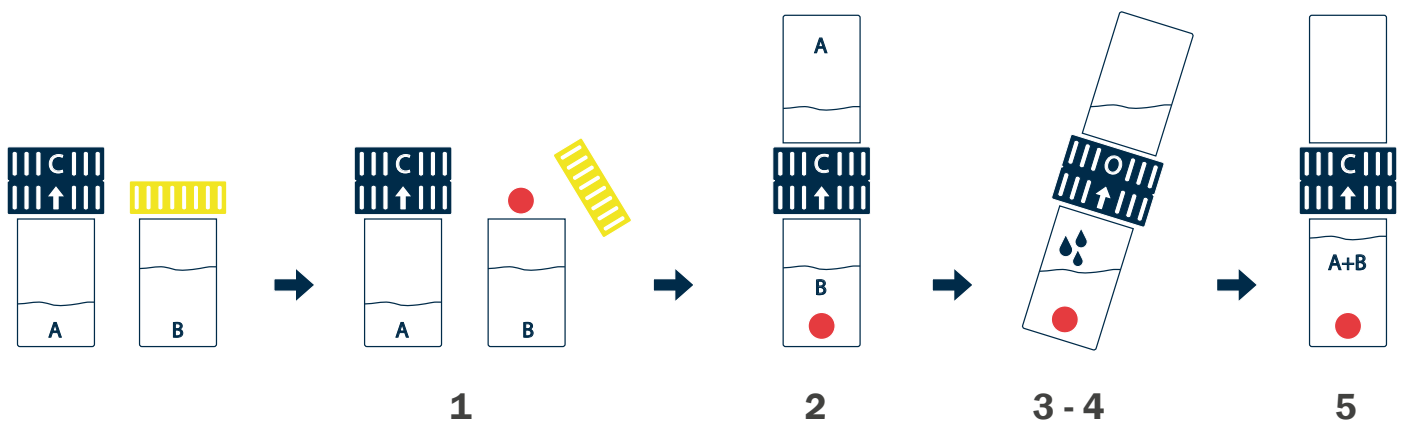
Klessidra 2.0

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
<ul style="list-style-type: none"> ● Klessidra 2.0 10 ml of 12% formaldehyde and 20 ml of buffer phosphate 	27 pcs.	05-01V15PK
<ul style="list-style-type: none"> ● Rack 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



Safe storage and transport of samples





Bio-Optica



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
<ul style="list-style-type: none"> ● Klessidra 10 ml 10 ml of 10% buffered neutral formalin in a 35 ml container Includes Endokit for the orientation of small biopsies 	27 pcs.	05-01V15PK
<ul style="list-style-type: none"> ● Klessidra 20 ml 20 ml of 10% buffered neutral formalin in a 55 ml container 	27 pcs.	05-01V30PK
<ul style="list-style-type: none"> ● Klessidra 30 ml 30 ml of 10% buffered neutral formalin in a 35 ml container 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
<ul style="list-style-type: none"> ● Klessidra BN 	24 pcs.	05-01V60PKB



Safe storage and transport of samples

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.

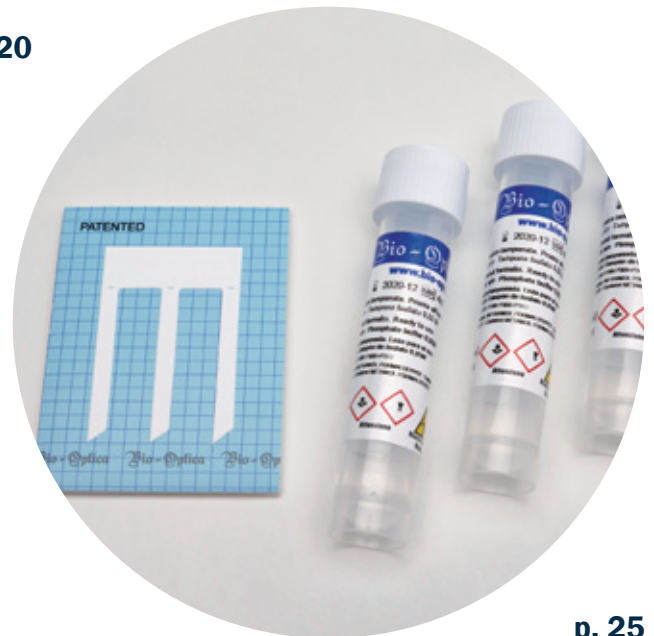


PRODUCT	PACK	CODE
<ul style="list-style-type: none"> ● Klessidra 3.0 - 90 ml 90 ml of 10% buffered neutral formalin 	8 pcs.	05-01V125PK
<ul style="list-style-type: none"> ● Klessidra 3.0 - 160 ml 150 ml of 10% buffered neutral formalin 	8 pcs.	05-01V250PK

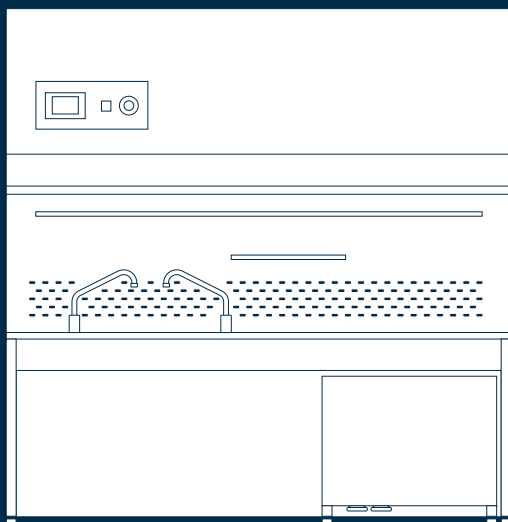




p. 20



p. 25

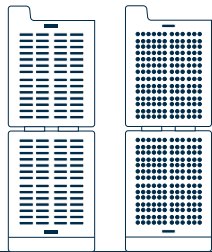
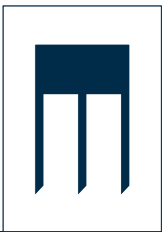


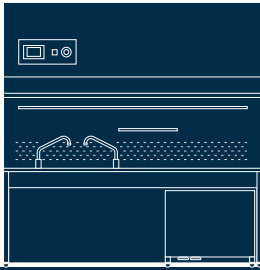


p. 32



p. 26





Bio - Optica

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

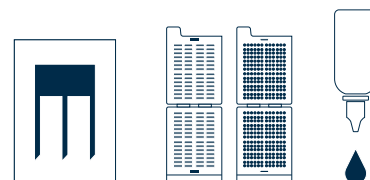
Work surface features

- 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





Grossing

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

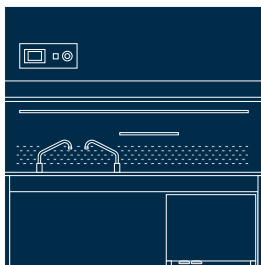


Accessories for grossing hoods

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





Bio - Optica



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.

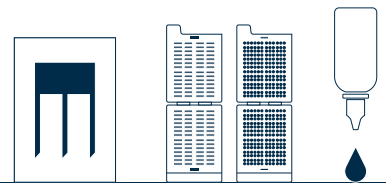
Construction features

- 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



Grossing

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



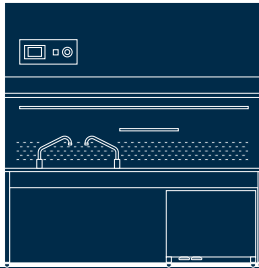
PRODUCT	CODE
Autopsy saw with extractor system	32-MSYS5000

PRODUCT AND DESCRIPTION	CODE
<ul style="list-style-type: none"> ● 64 mm circular autopsy blade, pack of 10 pcs. This the most popular blade for the majority of autopsy operations. Wide-set teeth minimize sticking. Four fastening points for enhanced safety. These can be rotated into a new position, when one area of the saw becomes blunt. 	32-MBC64M
<ul style="list-style-type: none"> ● 64 mm circular plaster blade, pack of 10 pcs. Fine-set teeth increase accuracy and reduce the risk of slippage. Can be rotated for longer service life. 	32-MBC64P
<ul style="list-style-type: none"> ● 76 mm circular autopsy blade, pack of 10 pcs. A wider blade for deeper cuts. Wide-set teeth minimize sticking. Can be rotated for longer service life. 	32-MBC76
<ul style="list-style-type: none"> ● 51 mm segmented blade, pack of 10 pcs. A segmented blade for more accurate work in specialist applications. 	32- MBS51



Autopsy instruments available to order

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



Bio-Optica

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.



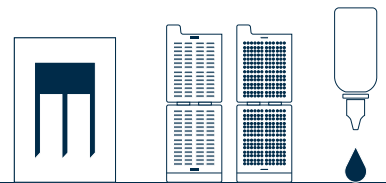
SIZE	PACK	CODE
Small	1 pair	08-530
Medium	1 pair	08-533
Large	1 pair	08-535

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



Grossing

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



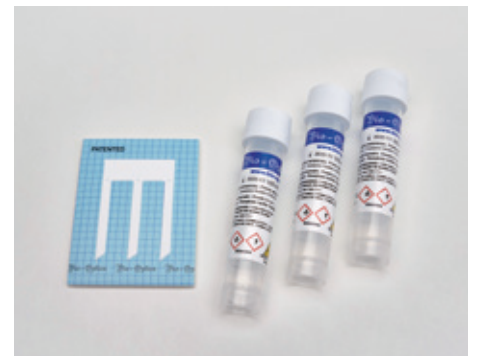
Accessories

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

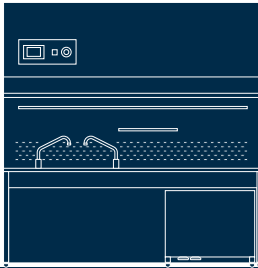


Grossing board

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





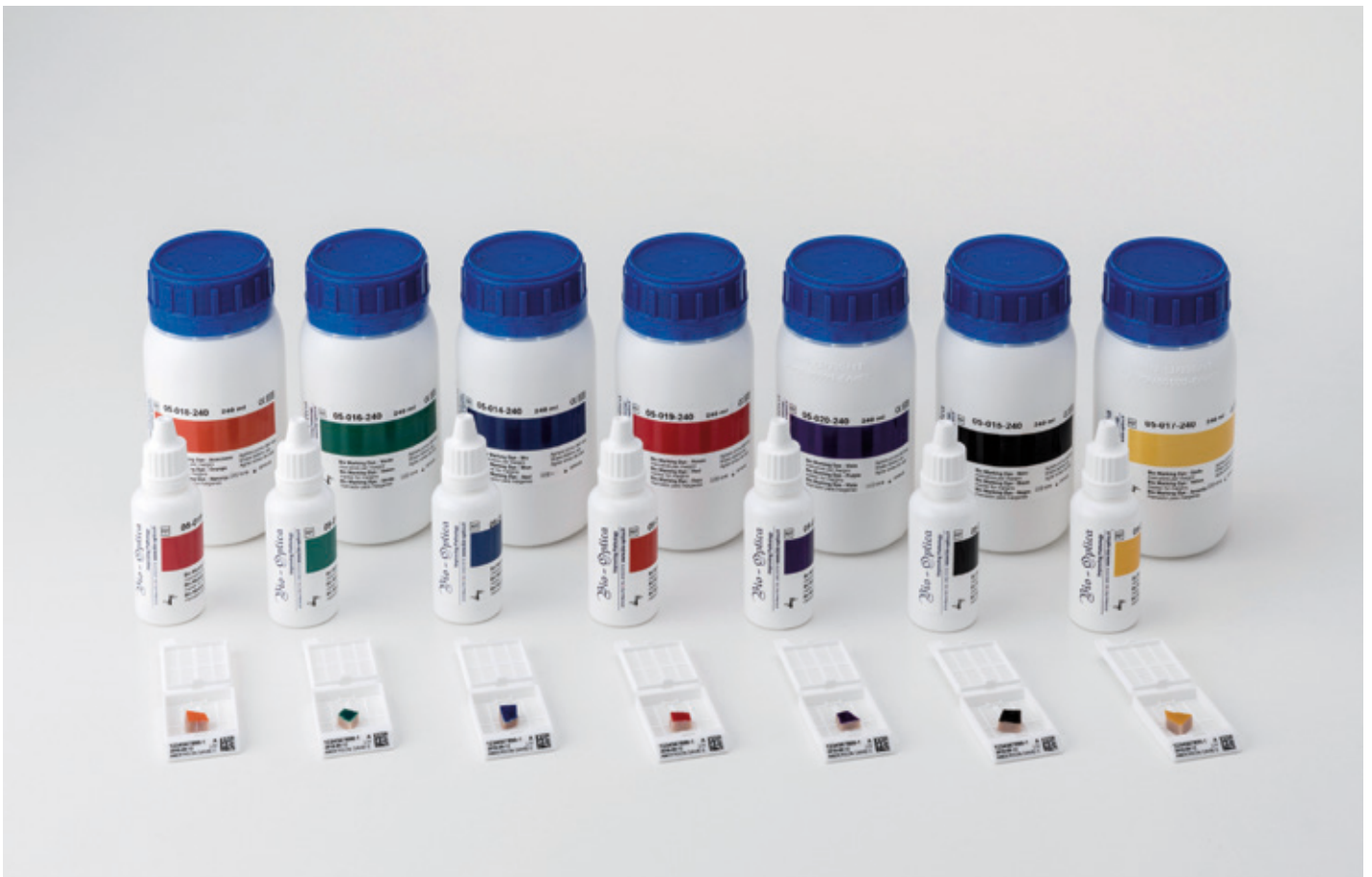
Bio-Optica

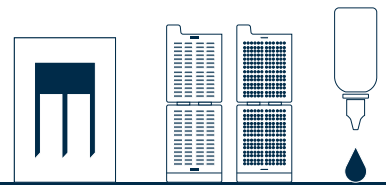
Bio Marking Dyes

Bio-Optica marking dyes are special, non-toxic inks, made with natural polymers, used to mark surgical margins.

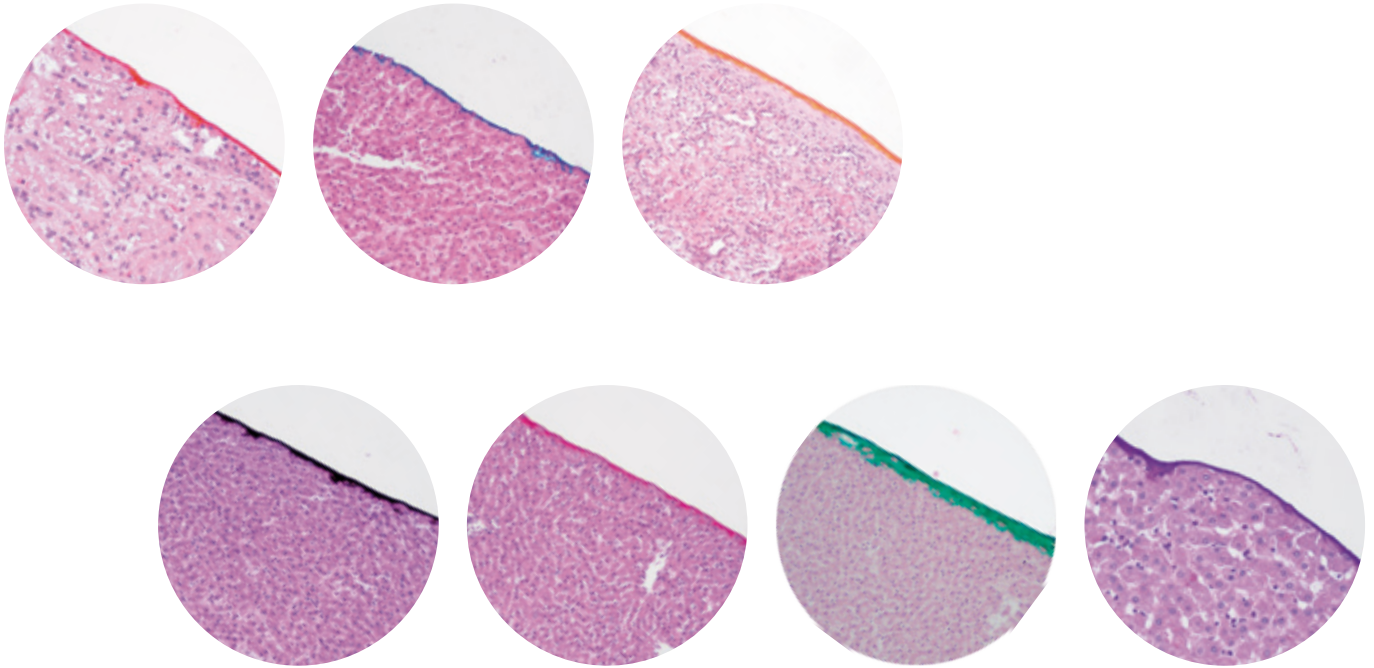
The advantages of using Bio Marking Dyes are as follows:

- 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





Grossing



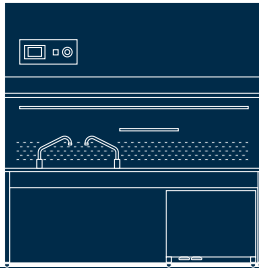
30 ml bottles with dispenser

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





Bio-Optica



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.

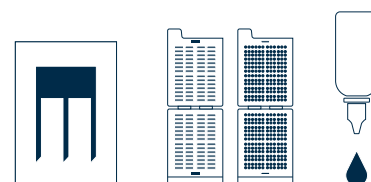
CAPACITY	PACK	CAP	CODE
125 ml	250 pcs.	Press	07-7700
250 ml	200 pcs.	Press	07-7750
500 ml	100 pcs.	Press	07-7710
1000 ml	100 pcs.	Press	07-7720
3000 ml	50 pcs.	Press	07-7730
5000 ml	20 pcs.	Press	07-7740

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
	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

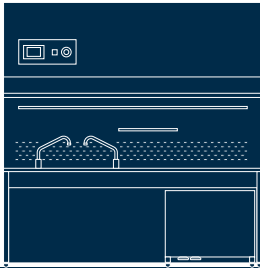
PRODUCT AND DESCRIPTION	PACK	CODE
● B 5 For hematopoietic tissue	1x500 ml	05-M01023
● Bouin For bone marrow biopsies	1x500 ml 4x2,5 l	05-M01008 05-01008Q
● Bouin Hollande sublimate For fixation of the pituitary gland and endocrine pancreas	1x500 ml	05-M01026
● Carnoy Product of choice for glycogen	1x500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



Decalcifying agents

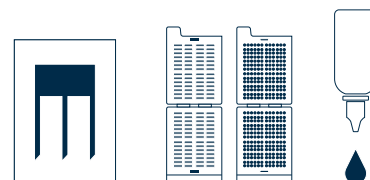
Decalcifying and/or fixative solutions for bone marrow biopsies and calcified tissues.

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



Bio - Optica



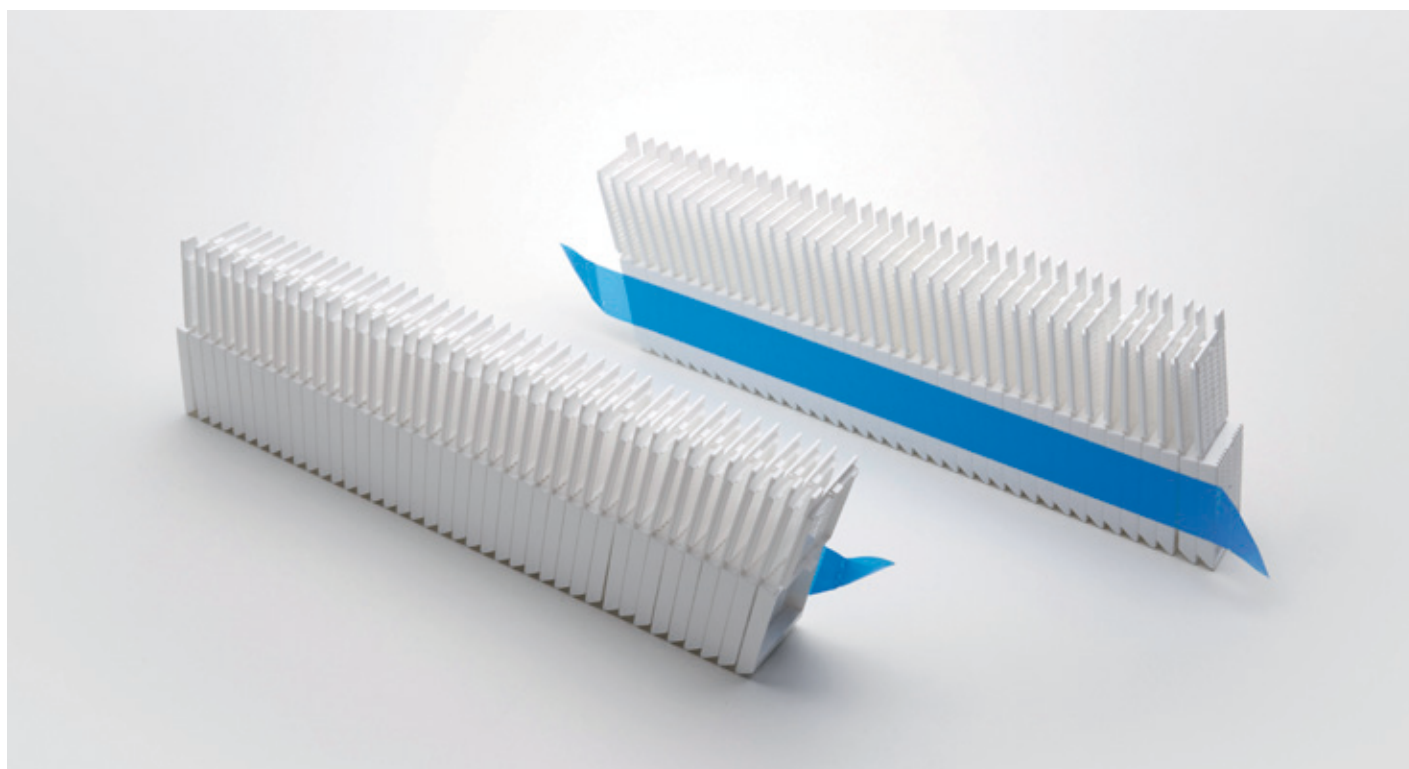


Grossing

Stacked Bio Cassettes with lid with tape for printers

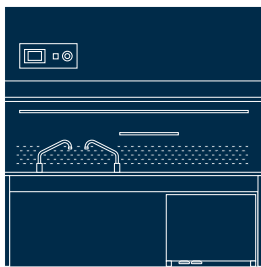
Bio Cassettes in polyacetal resin compatible with the main printing systems available on the market.

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



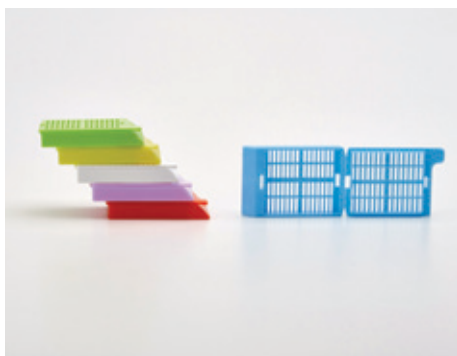
COMPATIBILITY WITH COMMERCIALY AVAILABLE WRITING SYSTEMS

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



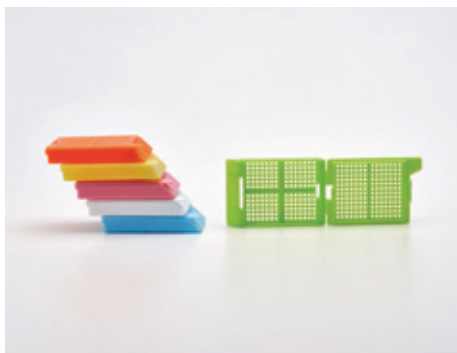
- **Bio Cassettes** of acetal resin for embedding standard samples with lid

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



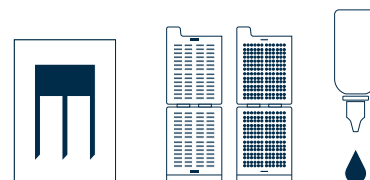
- **Biotry Cassettes** acetal resin cassettes for embedding biopsies and small samples with lid

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



- **Biotry 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

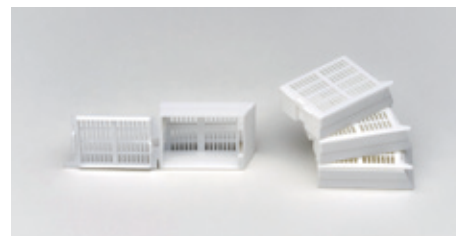


Grossing

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.

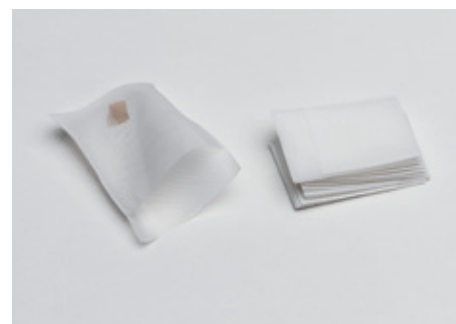
COLOR	PACK	CODE
Blue	500 pcs.	07-7290
Blue	5000 pcs.	07-7290/5
Blue	15000 pcs.	07-7290/15
Black	5000 pcs.	07-7291



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

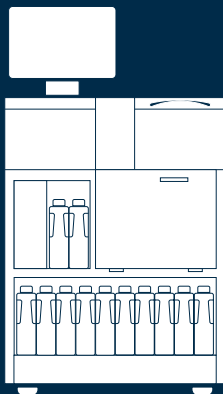




p. 39

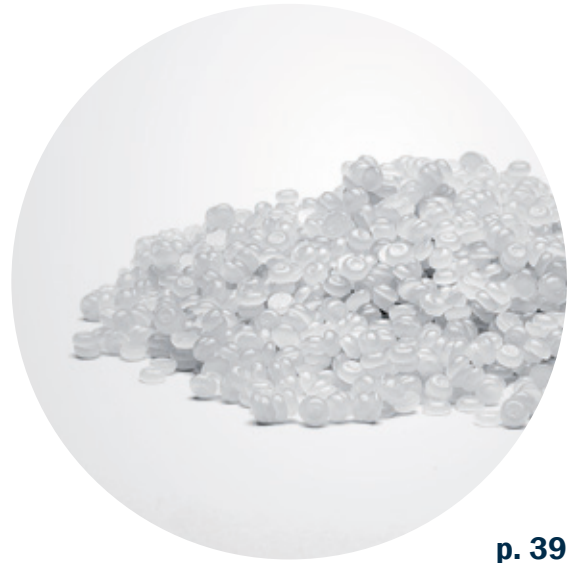


p. 36

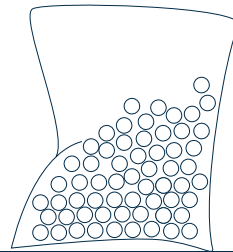
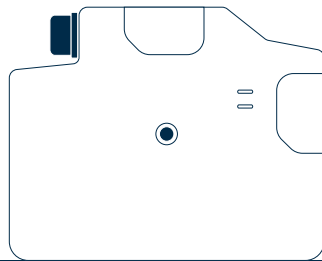
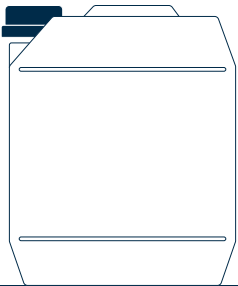


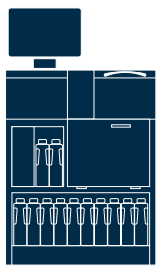


p. 36



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

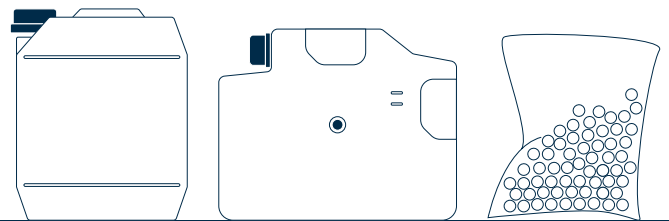
Dimensions:	720 x 600 x 1300 mm (l x w x h)
Weight:	120 kg empty
Operating capacity:	300 cassettes per cycle

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



Processing



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

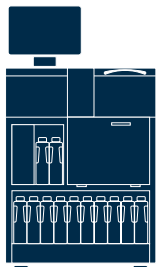
Dedicated reagents

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



Bio-Optica

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

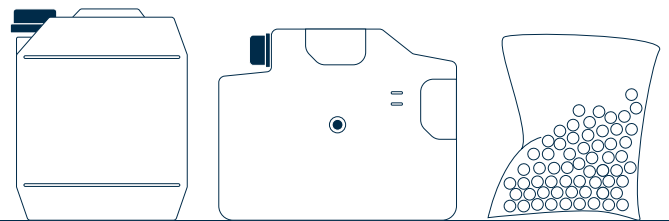
A 95° alcohol mix comprising ethyl alcohol.

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



Processing

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, dewaxing 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



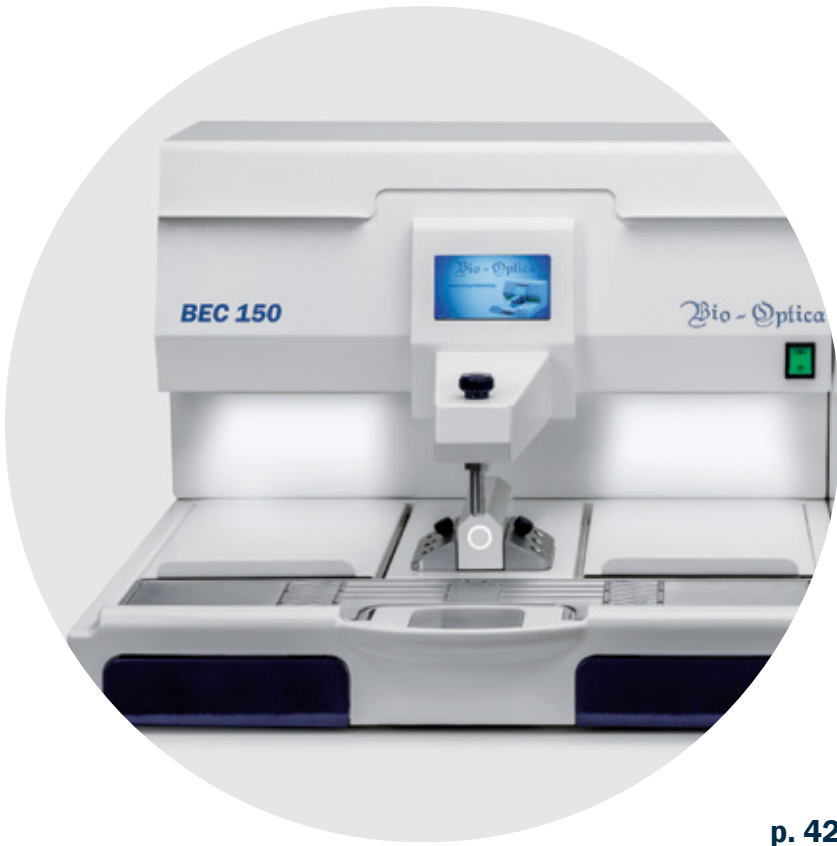
Bio-Plast Paraffins

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

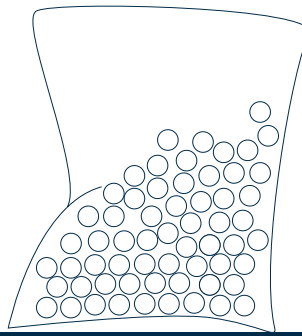
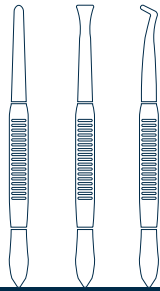
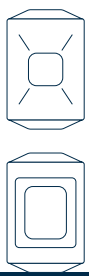




p. 44



p. 39





Bio-Optica



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:

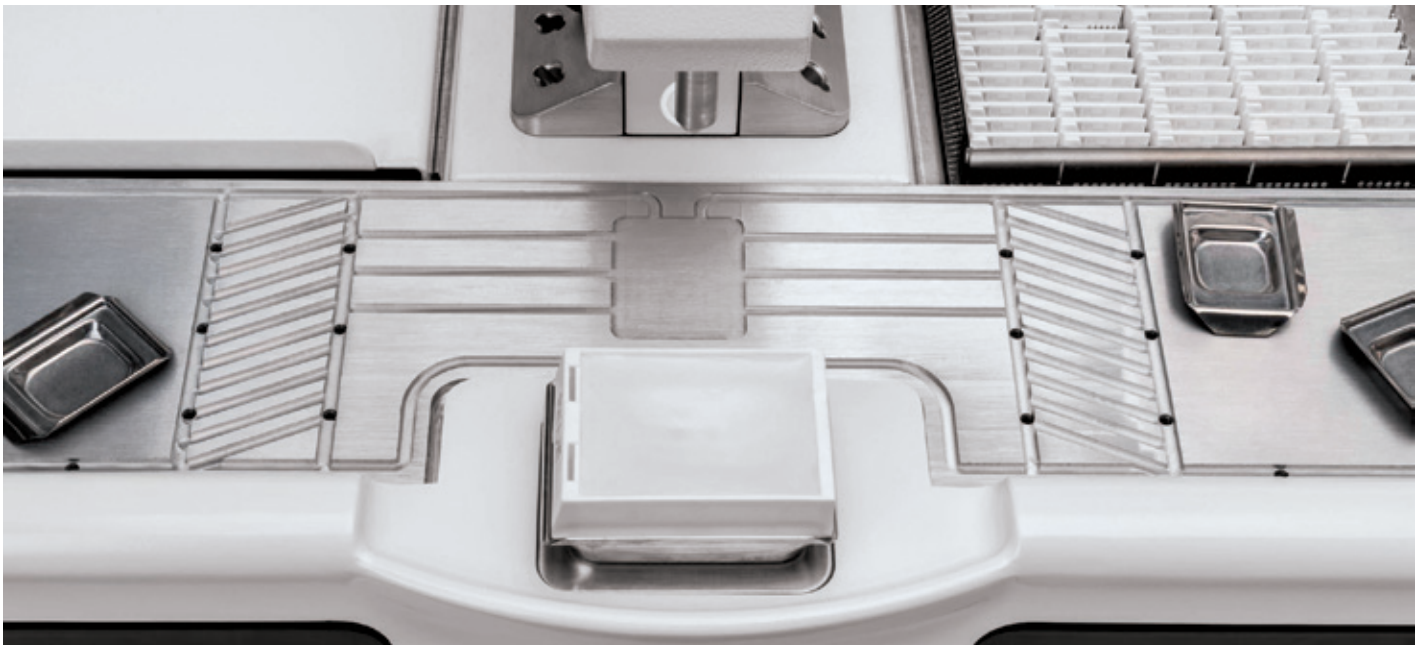
- Proximity sensor for dispensing paraffin, with flow control function
- 6 heated, pull-out holders for forceps
- 2 paraffin collection drawers with disposable containers
- Peltier spot capable of accommodating embedding molds for large samples
- Double thermal unit capable of accommodating the racks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

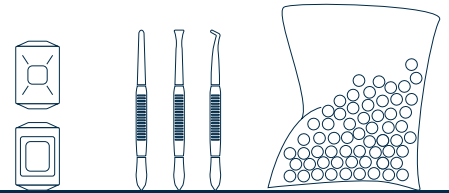


Accurate thermostatic control of the paraffin tank and work plate, and separate heating of the dispensing nozzle keep the operating temperature constant at all times.

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.



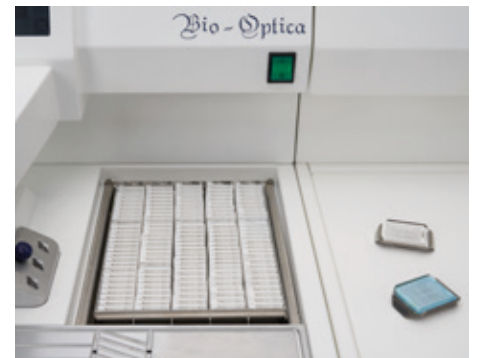


Embedding

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 cooling plate: -8 °C

PRODUCT	CODE
BEC150 paraffin dispenser	40-200-002
BCP170 cooling plate	40-300-202
BEC230 cooling plate	40-300-203





Bio-Optica



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



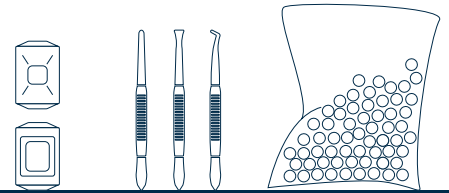
Forceps

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



Embedding

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-MP15155
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

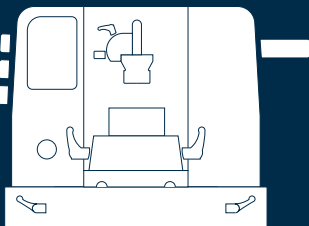


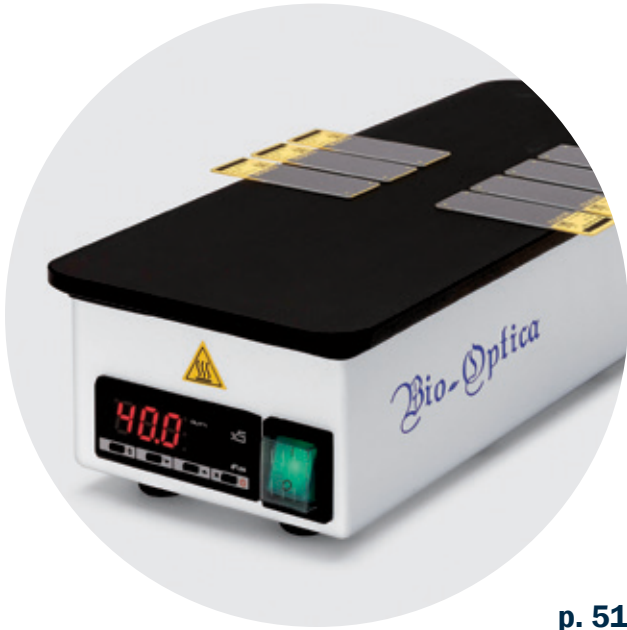


p. 50



p. 48

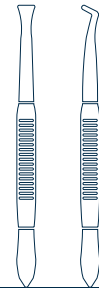
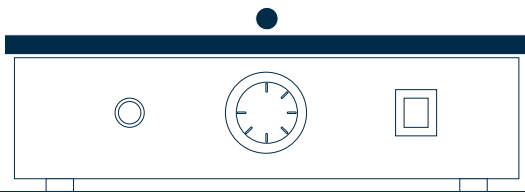


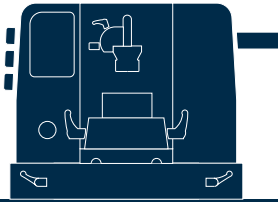


p. 51



p. 44



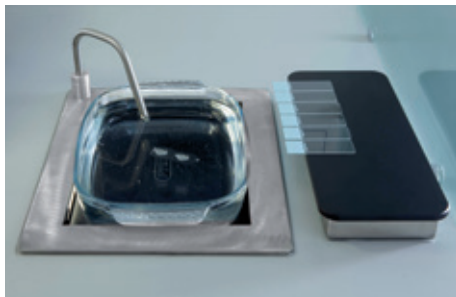
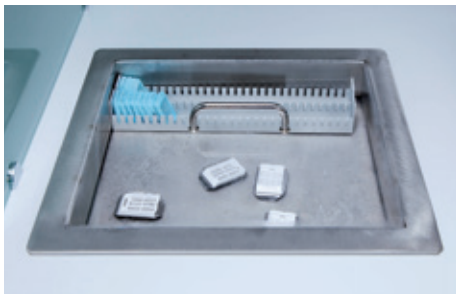


Bio-Optica

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

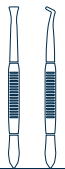
Weight: 100 Kg

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:

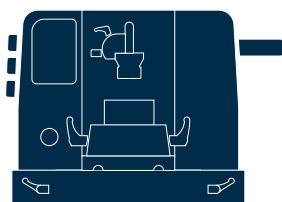
- High cooling power
- No condensation on the work surface or dripping on the bench
- Ability to cool a larger number of paraffin-embedded blocks (up to 300 approx) thanks to the special guides, which are available to order.

● **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





Bio-Optica



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



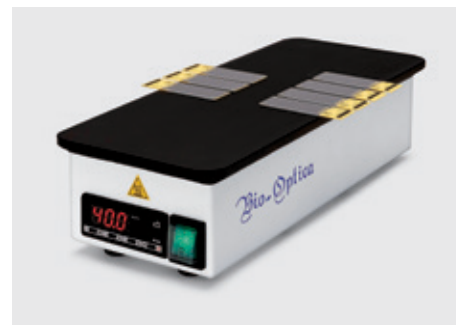


Microtomy

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

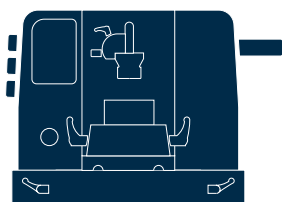
The SVN1790 natural ventilation histology oven is designed to dry slides and heat laboratory material quickly. Complete with two removable perforated shelves and a base tray.

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





Bio-Optica



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.

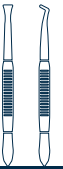
PRODUCT	PACK	CODE
Small for collecting biopsies	4 pcs.	08-0822
Small for collecting microtome sections	4 pcs.	08-0823
Medium for collecting microtome sections	4 pcs.	08-0824
Medium for microtome blade cleaning	2 pcs.	08-0825
Large for microtome cleaning	2 pcs.	08-0826
Large for cryostat cleaning	2 pcs.	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



Microtomy

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

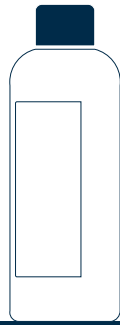
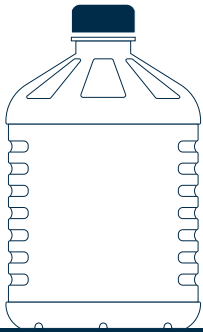


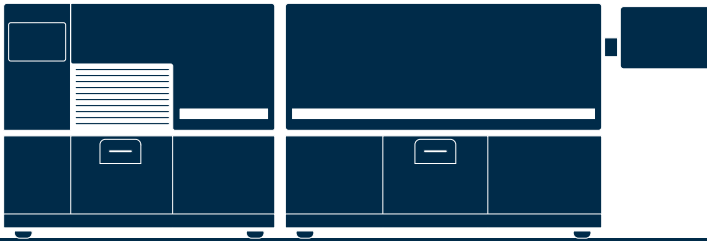


p. 136



p. 68





Bio-Optica



AUS240 stainer

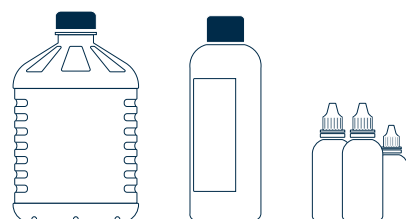
The AUS240 automated histology stainer with X-Y-axis transfer arm is fully programmable and suitable for all histo-cytological stains, both routine and special. It can perform multiple staining processes simultaneously. Their number is limited only by the number of dishes available (indicatively 10-12 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.

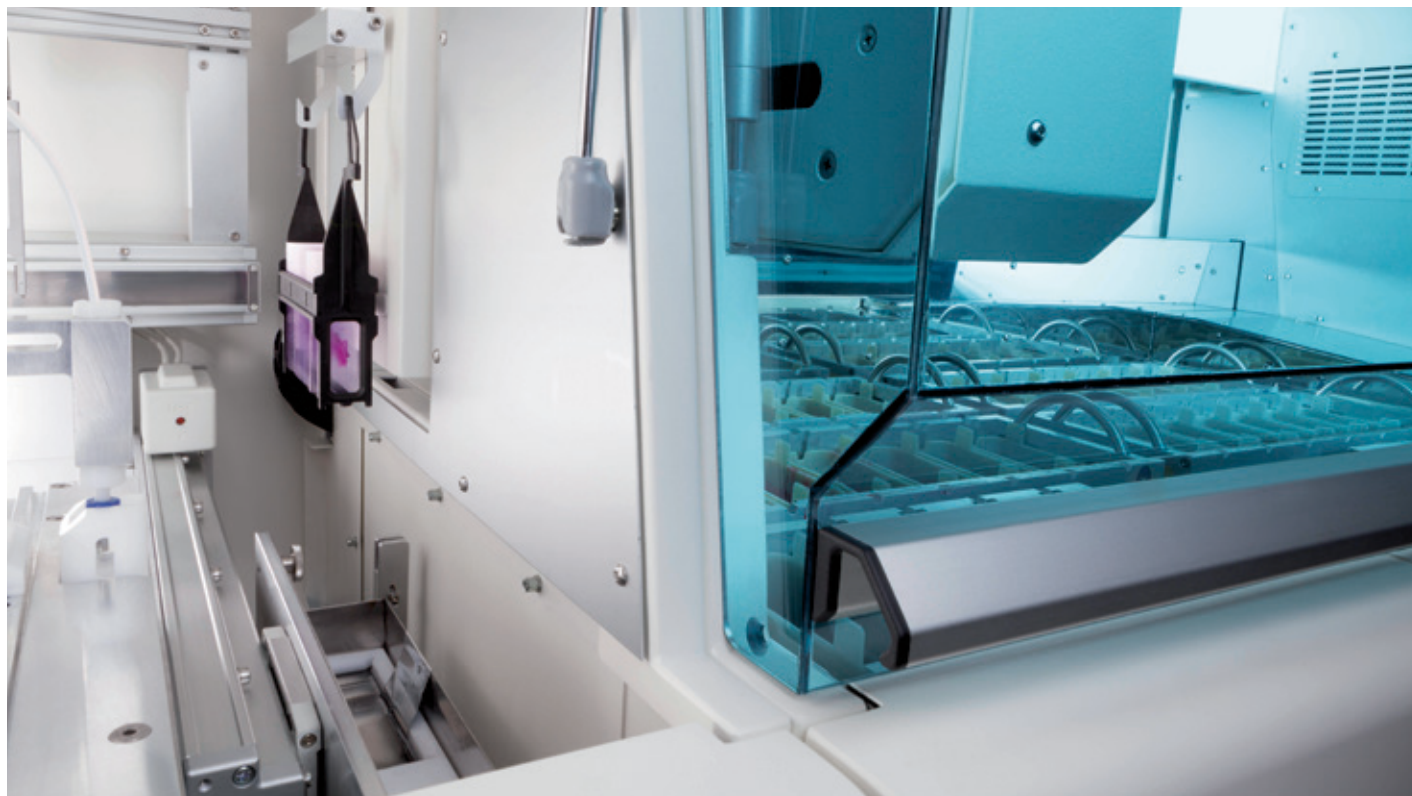
● Characteristics

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



Staining and mounting



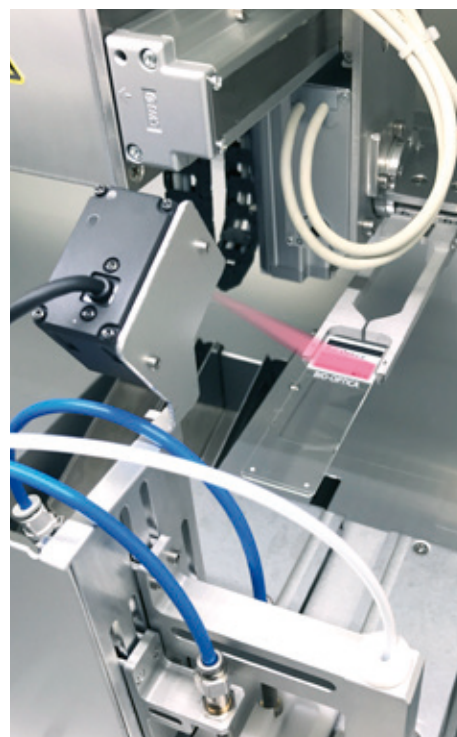
CVR909 automated coverslipper

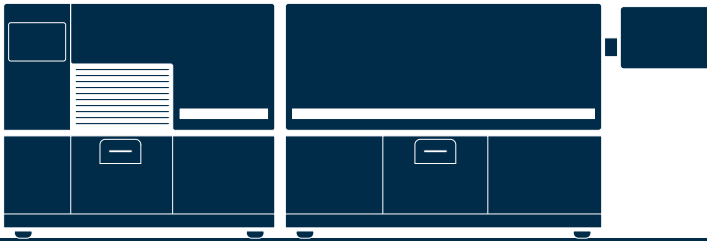
The CVR909 automated coverslipper is the only instrument on the market that arranges the coverslipped slides directly on handy stackable trays, which are resistant to chemical reagents. The instrument is easy to use and specifically developed to facilitate routine laboratory operations. Continuous cleaning 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**

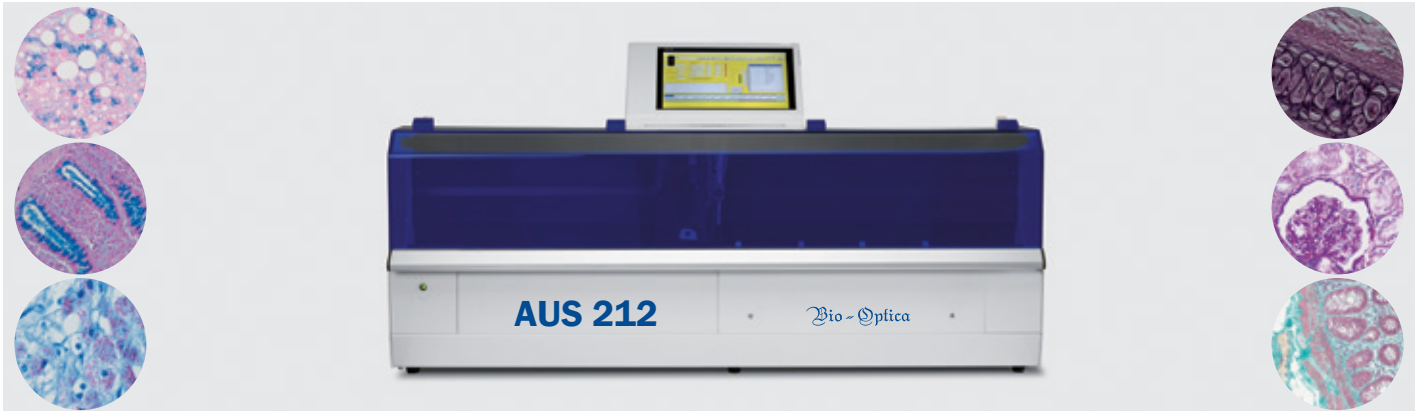
Overall dimensions:	860 x 780 x 770 mm (L x W x H)
Total weight:	80 kg
Throughput:	180 slides/hour (directly on tray)
Mounting medium:	500 ml container
Output of mounted slides:	9 trays of 10 slides each (total: automated output of 90 slides without operator intervention)

PRODUCT	CODE
CVR909 automated coverslipper	40-500-000



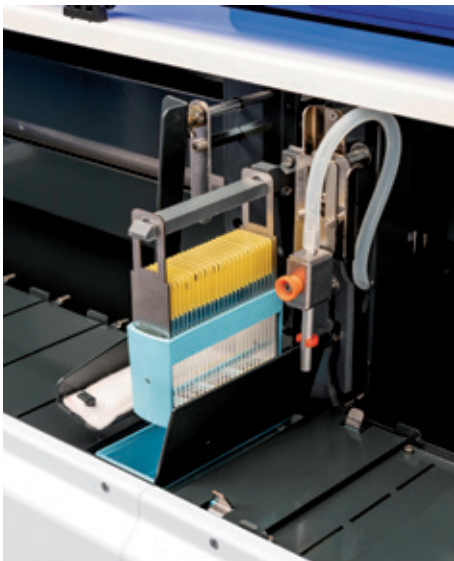


Bio-Optica



AUS212 stainer

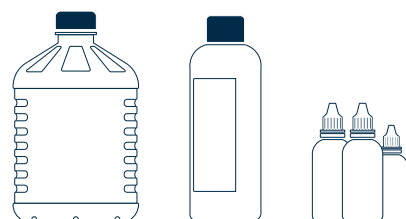
The AUS212 automated linear stainer is compact and versatile. The heated dishes make it possible to perform sample preparation processes for in situ hybridization, histocytological staining and special staining protocols involving heating phases. It is a closed system that ensures user safety by means 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.



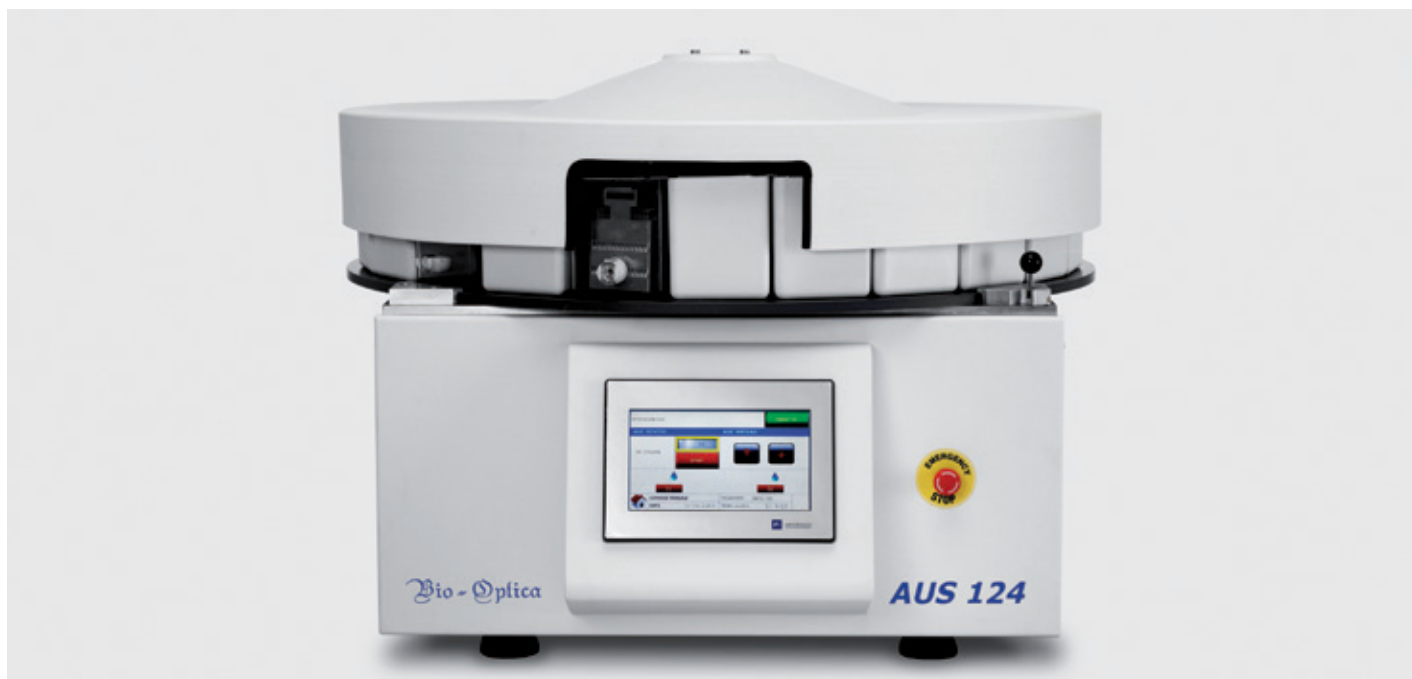
● Characteristics

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



Staining and mounting



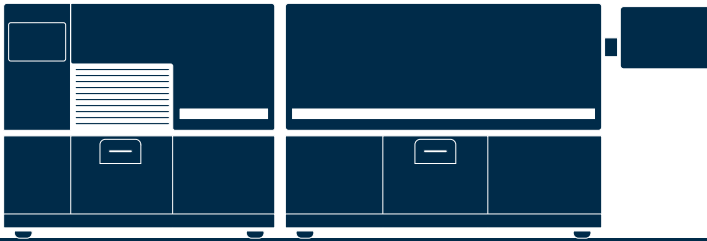
AUS124 sequential stainer

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



Bio - Optica

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

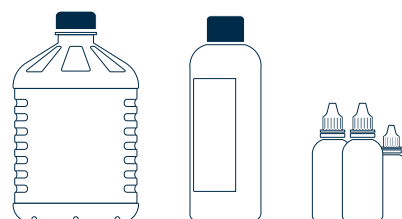
- Pre-fitted with synthetic fiber filter and pre-filter
- Predisposition for HEPA Filter



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



Staining and mounting



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

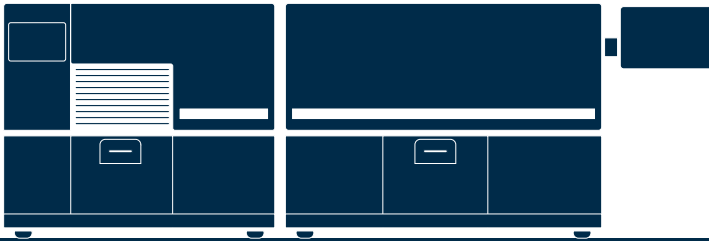
Extractor system:	1 three-phase spark-proof adjustable electric extractor fan
Lighting:	2 LED tubes, total 1500 lux
Control panel:	touch-screen monitor for the control and display of all functions

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



Bio - Optica

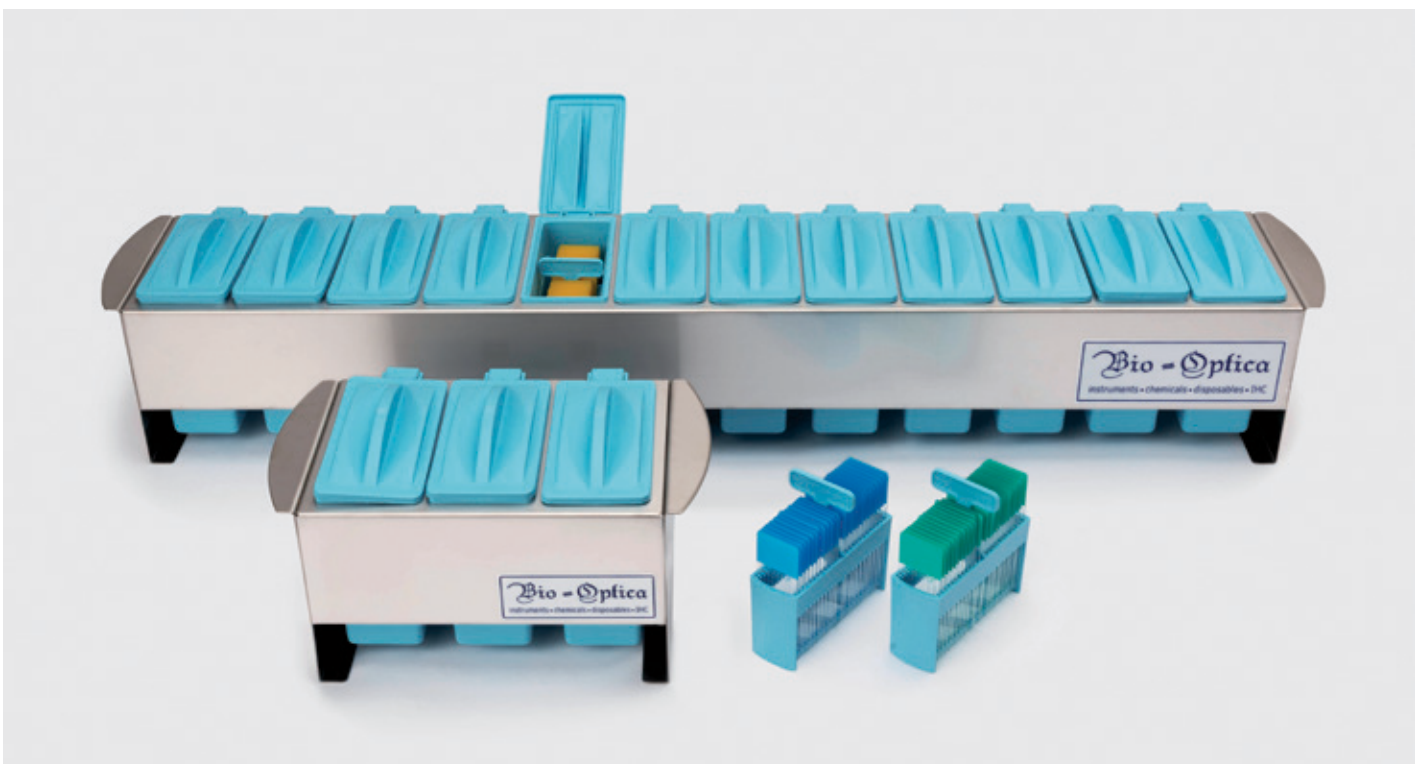
Manual staining set

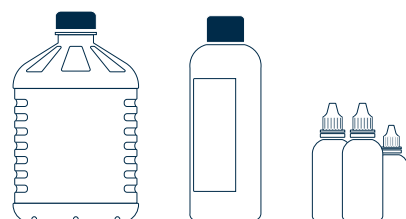
The simplest and most economical cyto-histological staining system, made of thermoplastic resin: the 10-10 manual staining set consists of twelve dishes with lid (capacity 300 ml) in a steel structure and a slide-rack for twenty-five slides. The hematology version consists of just three dishes with lid 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

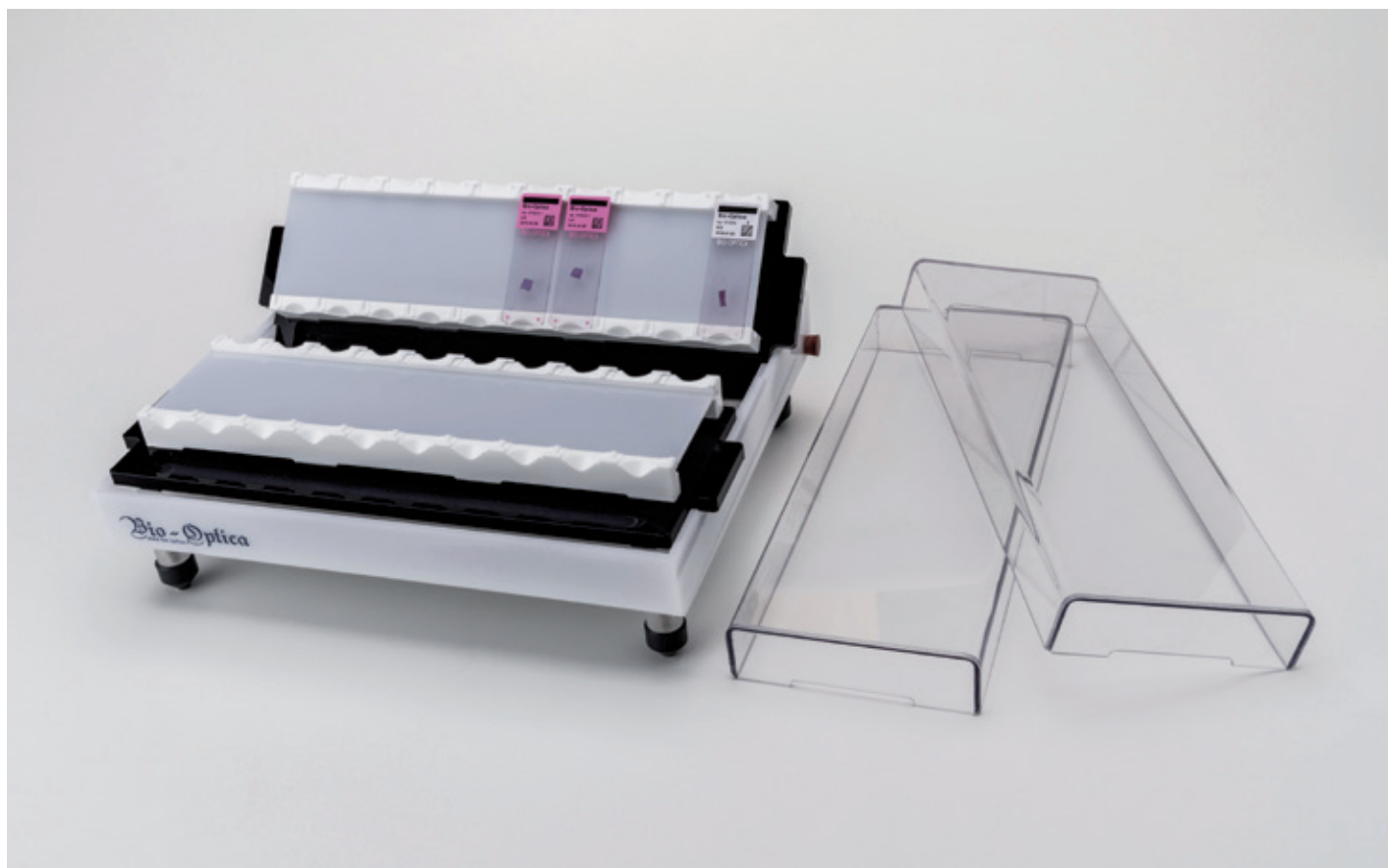
PARTS AND ACCESSORIES

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





Staining and mounting



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.

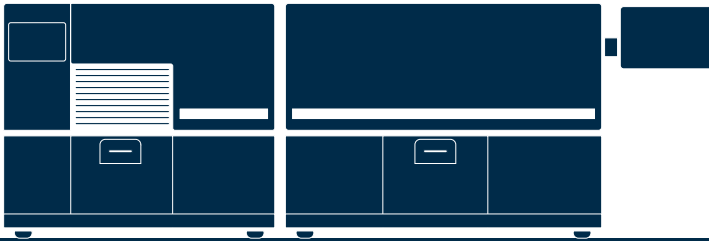
The adjustable feet and spirit level help keep the work surface totally horizontal.

DIMENSIONS

CODE

32 x 26 x 11 (L x W x H) cm

15-MEQ001



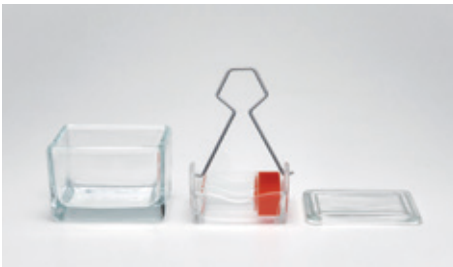
Bio - Optica



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

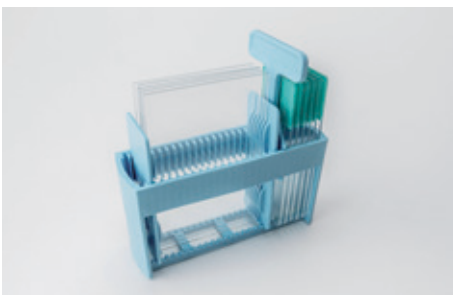
PRODUCT	PACK	CODE
Glass Hellendahl jar	1 pc.	10-1410
TPX Hellendahl jar	4 pcs.	44-13101
Glass Coplin jar	1 pc.	10-1710
Glass Schifferdecker jar	1 pc.	10-1610
TPX Schifferdecker jar	1 pc.	44-13111



Timer

Solvent-resistant laboratory timer.

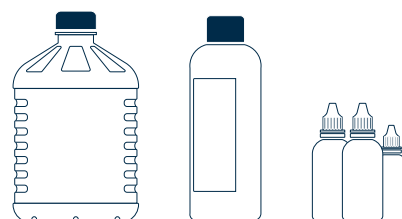
MODEL	PACK	CODE
Clip	1 pc.	44-10851
One hand	1 pc.	44-10852
Electronic	1 pc.	44-10853
Digital electronic	1 pc.	44-06057A000



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



Staining and mounting

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

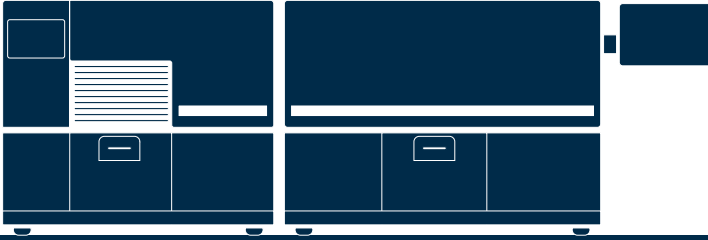


Pen with diamond tip

For permanent engraving of slides.

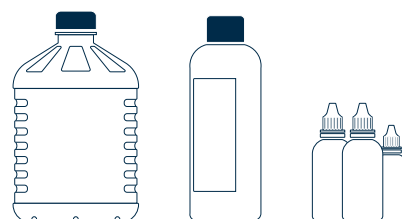
PRODUCT	PACK	CODE
With hexagonal aluminum handle	1 pc.	08-DS2F





Bio-Optica





Staining and mounting

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.

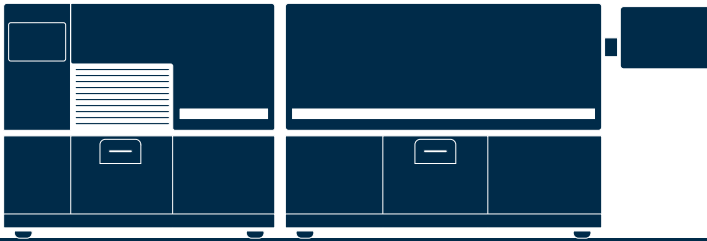
SLIDES OF SPECIFIC DIMENSIONS ARE AVAILABLE TO ORDER.

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°	White	72 pcs.	09-3000
positively charged			



COMPATIBILITY WITH COMMERCIALY AVAILABLE WRITING SYSTEMS

CODE	HANDWRITING	PRIMERA PRINTER	THERMO PRINTERS	LEICA PRINTER
09-1000MB	✓	✗	✗	✗
09-1000	✓	✓	✓	✗
09-1010	✓	✓	✓	✗
09-1020	✓	✓	✓	✗
09-1030	✓	✓	✓	✗
09-1040	✓	✓	✓	✗
09-1050	✓	✓	✓	✗
09-3000	✓	✓	✓	✗



Bio - Optica

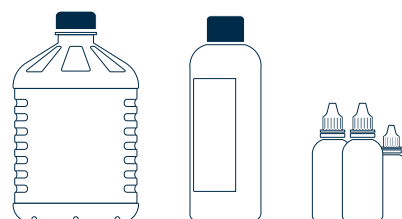
Manual staining kit

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.





Staining and mounting

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

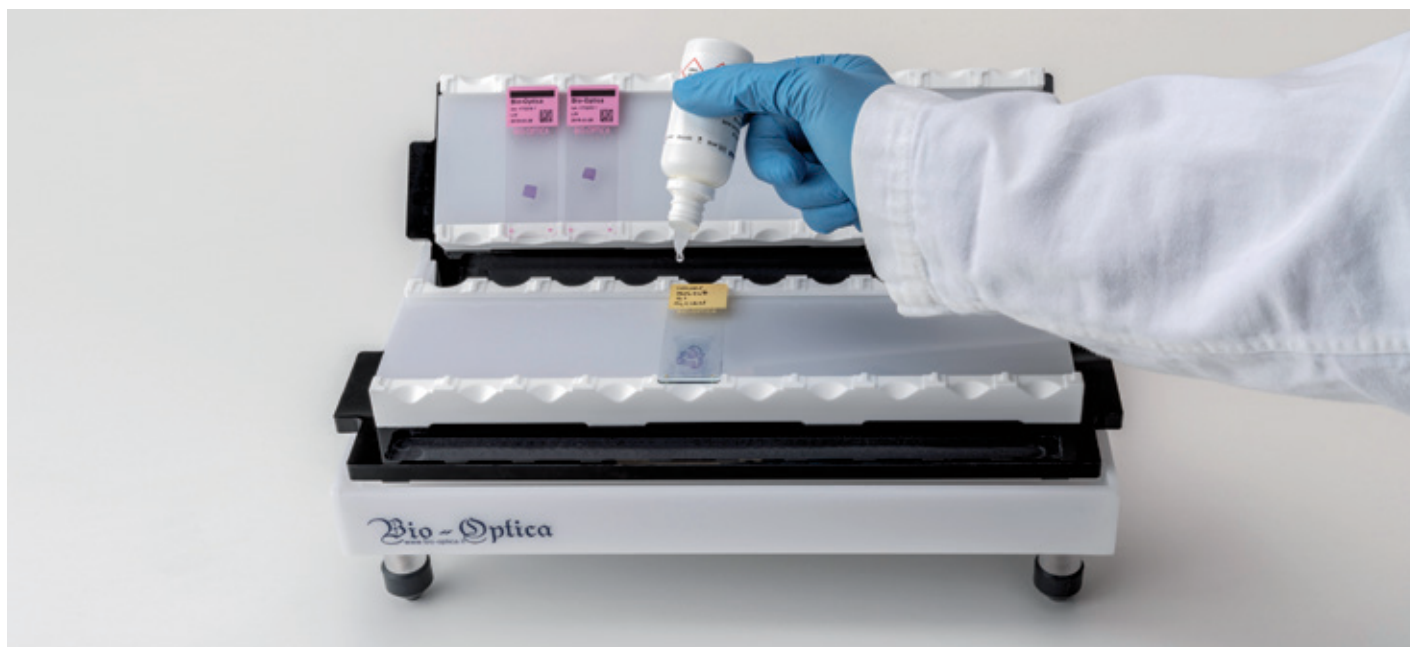
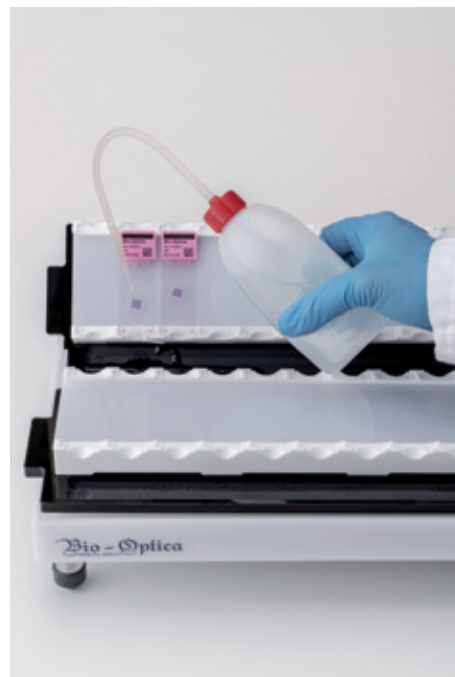
The completion time is calculated according to the duration of the individual steps of which the method consists. It does not include the time taken for de-waxing, hydrating and dehydrating the section.

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.

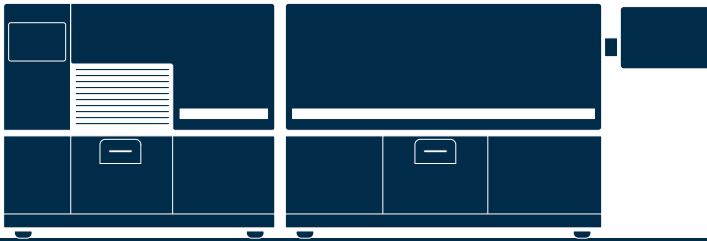


Additional equipment

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

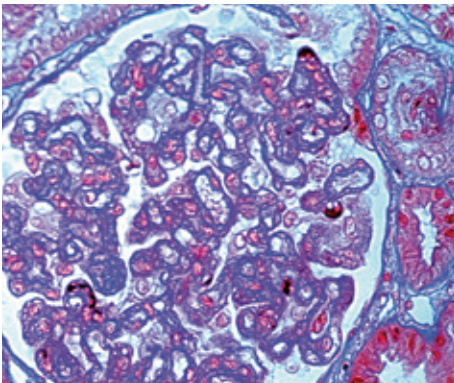
Reference method for highlighting protein deposits in renal biopsy.
Recommended fixative: Bouin.

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

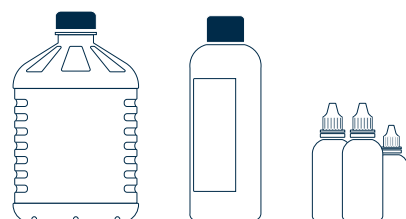
Collagen fibrils blue

Nuclei black

Erythrocytes, cytoplasm pink - orange

Elastic fibers pale pink - yellow or colorless

Protein deposits bright red



Staining and mounting

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

AgNOR

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.

Result

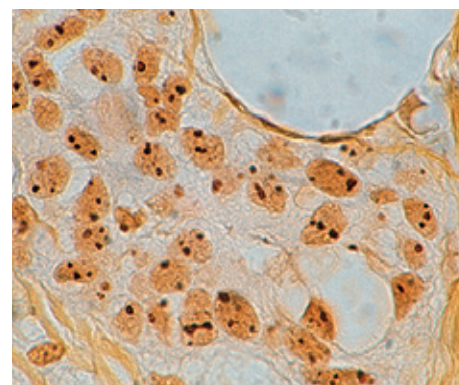
AgNOR, argentaffin granules black

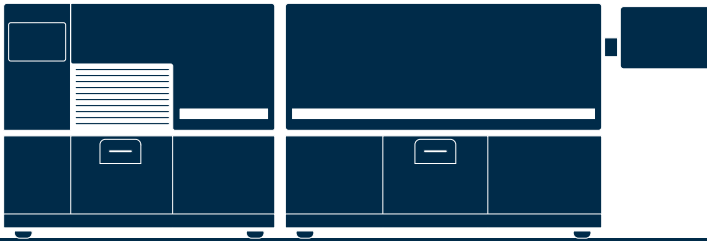
WARNINGS

- 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.

Results

BREAST





Bio - Optica

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

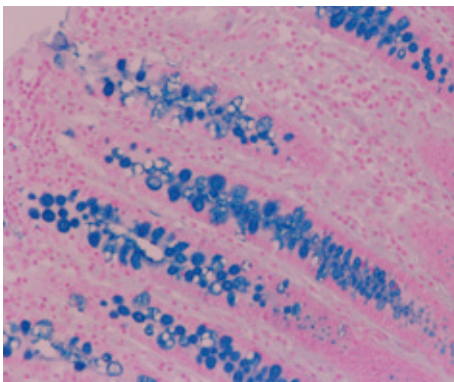
Method indicated for highlighting strongly sulfated mucins.

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



Staining and mounting

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

Alcian Blue pH 1

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.

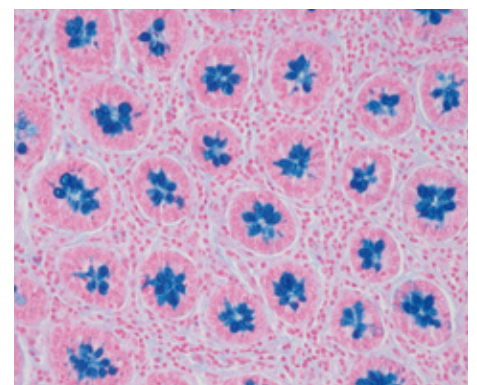
Result

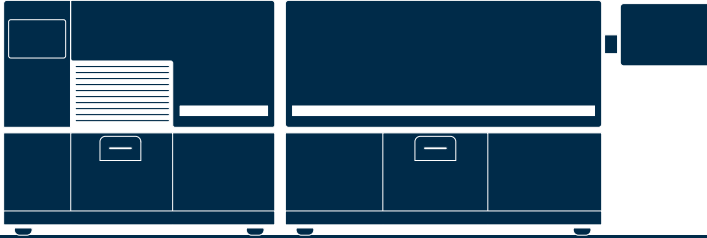
Acid mucopolysaccharides blue - turquoise

Nuclei red

Results

COLON





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

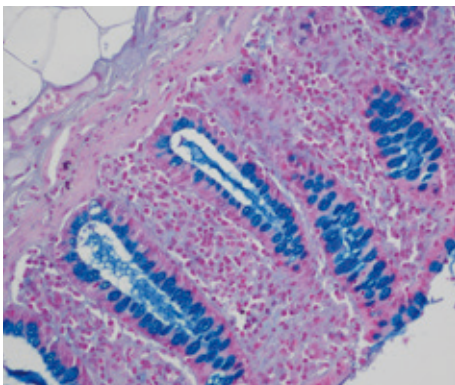
Method indicated for highlighting acid mucopolysaccharides on tissue sections.

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

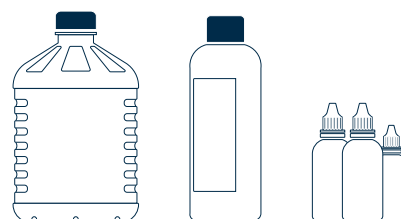
Results



Result

Acid mucopolysaccharides blue - turquoise

Nuclei red



Staining and mounting

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

Alcian Blue pH 2.5 - pH 1

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

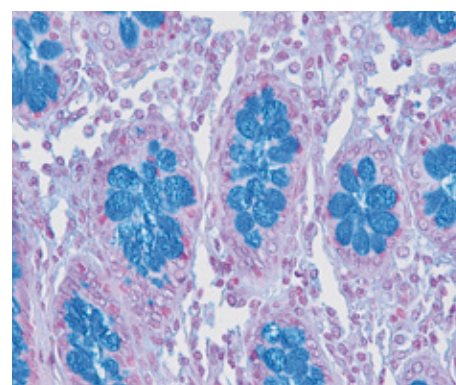
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent C onto the section: leave to act for 30 minutes.
- 3) Without washing, drain the slide and dispense 10 drops of reagent D onto the section: leave to act for 10 minutes.
- 4) Wash in distilled water.
- 5) Dehydrate by means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

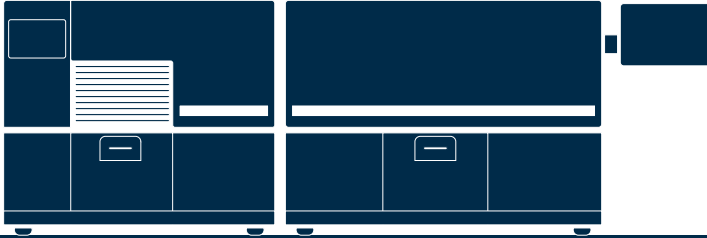
Result

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

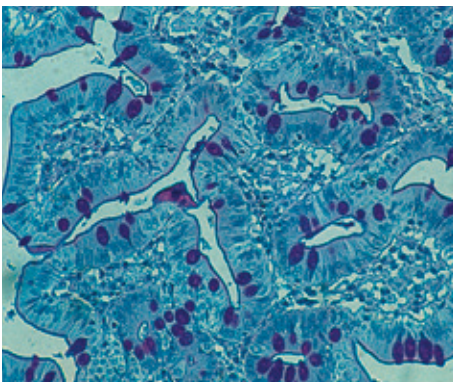
Combined method for differentiating acid mucins, neutral mucins and carbohydrates on tissue sections.

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.

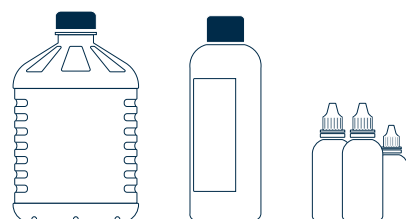
INTESTINE

Results



Result

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



Staining and mounting

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

Alcian Yellow - Toluidine blue

Application

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

Method

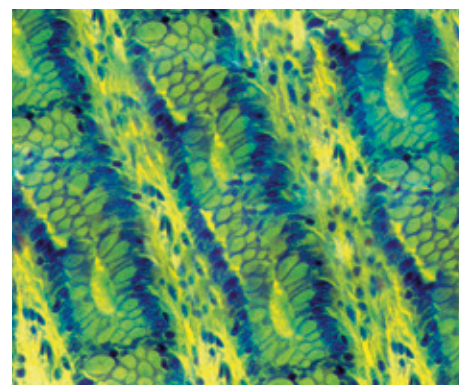
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash thoroughly in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 5 minutes.
- 5) Wash in tap water for 2 minutes.
- 6) Dispense 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.

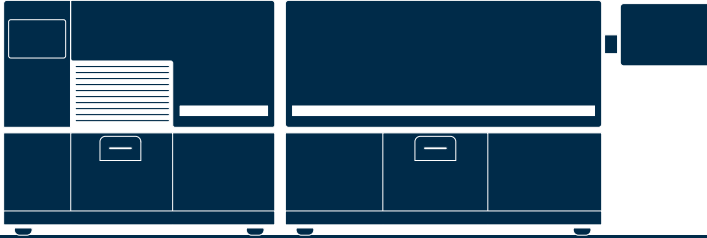
Result

<i>Helicobacter pylori</i>	blue
Mucins	yellow
Background	blue

Results

INTESTINE





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

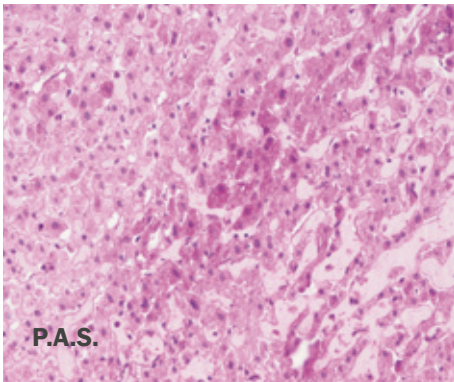
Removal of glycogen from

- 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.

LIVER

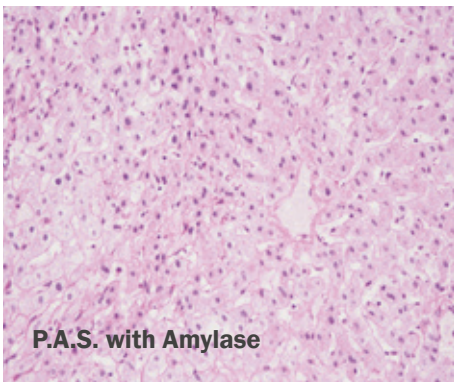
Results



Method

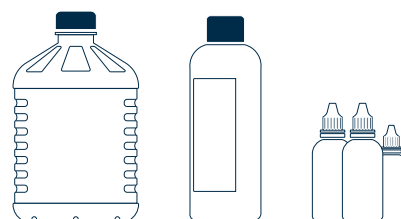
- 1) Bring the section to the distilled water.
- 2) Bring the amylase solution to room temperature.
- 3) Cover the section with the amylase solution: leave to act for 10 minutes at room temperature.
- 4) Wash the slide several times in distilled water.
- 5) Proceed with the PAS reaction in the normal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

LIVER



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.



Staining and mounting

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

Azan Trichrome

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.

Result

Collagen, reticulum, basophilic cytoplasmic granules of the pituitary gland, juxtaglomerular granules and glomerular stroma of the kidney blue

Neurofibrils (glia) reddish

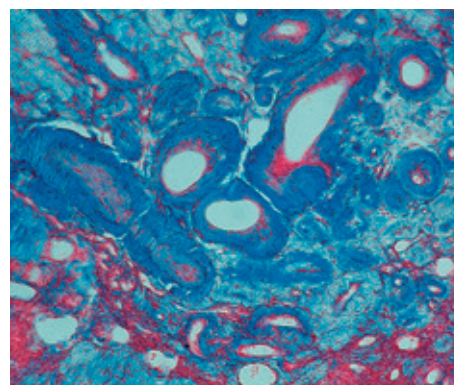
Muscle orange

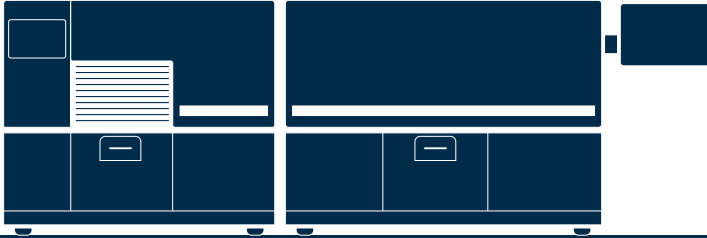
Nuclei, erythrocytes and acidophilic granules of the pituitary gland red

Cytoplasmic granules of the delta cells of the pituitary gland blue

Results

OVARY





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

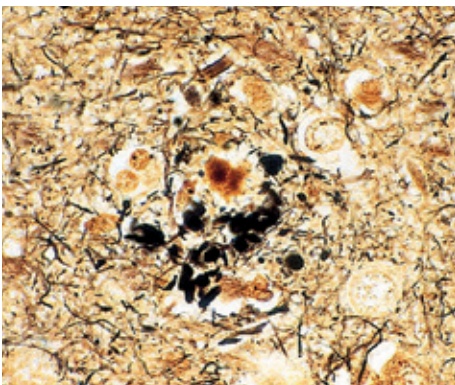
The method of choice for viewing neurofibrils, axons, dendrites and senile plaques. Usable on sections fixed in 10% formalin and embedded in paraffin, having a thickness of 8 - 10 µm.

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

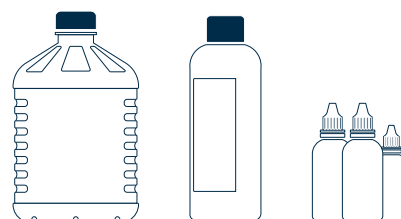
Neurofibrils and senile plaques black

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.



Staining and mounting

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.

Result

Gram-positive bacteria blue

Gram-negative bacteria red

Actinomycetes (Nocardia) blue

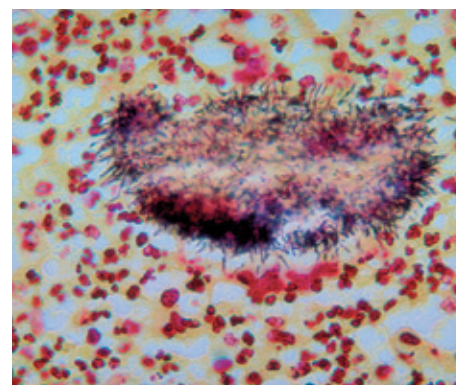
Nuclei red

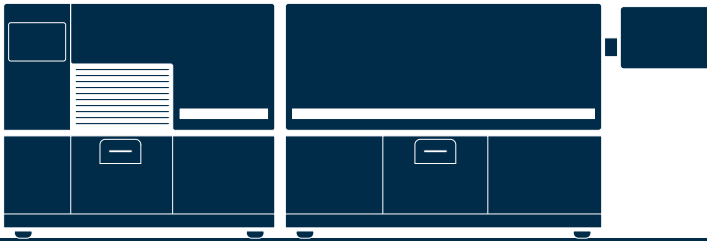
Other tissue elements yellow

Brown - Brenn

Results

OVARY





Bio - Optica

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

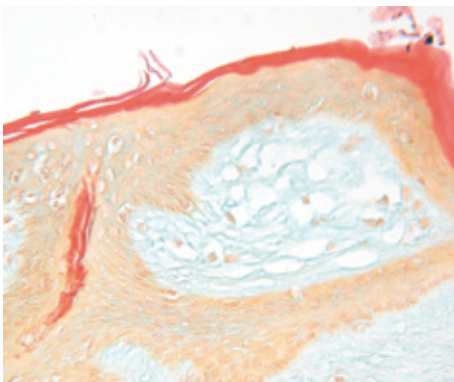
For viewing prekeratin, keratin and mucin on histological sections, therefore particularly indicated for skin pathology.

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



Staining and mounting

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.

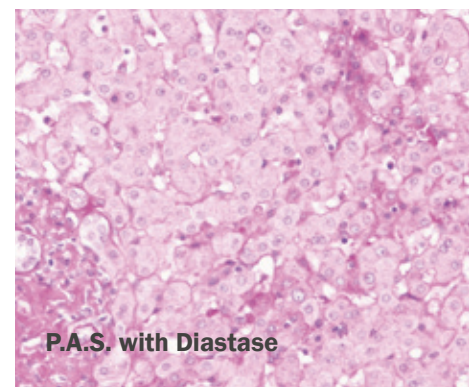
Result

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.

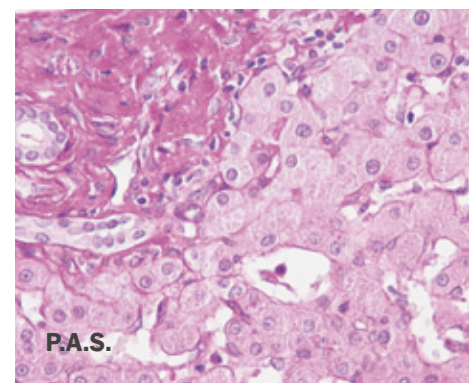
Diastase - Enzymatic digestion

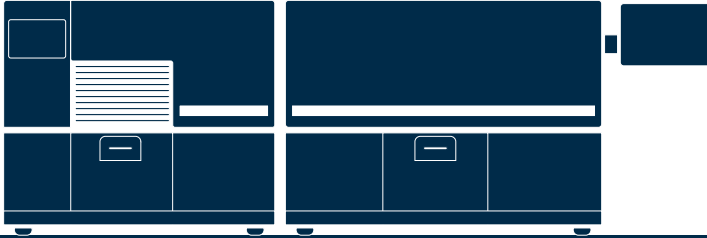
Results

LIVER



LIVER





Bio - Optica

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.

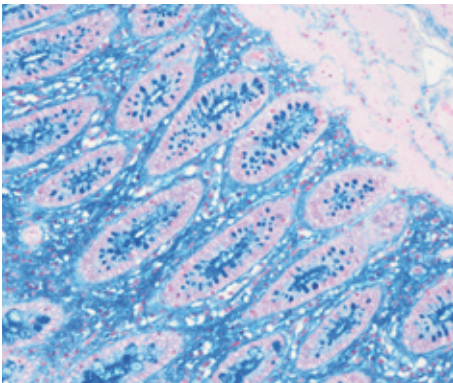
Specificity: the reaction shows acid mucins (sialomucins and sulfomucins) whose acid groups, at the reaction pH, take anionic form and are therefore capable of forming a stable complex with positive trivalent iron.

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



Staining and mounting

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

Feulgen

Application

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

Method

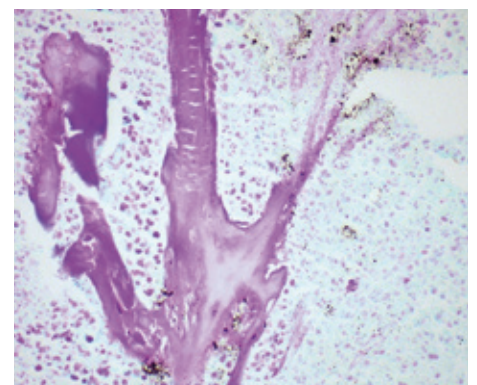
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section, leave to act for 40 minutes.
CAUTION: reagent A is corrosive. Handle with care and in an environment equipped with an extractor fan. Avoid contact with the skin and eyes. Wear protective gloves and goggles.
- 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.

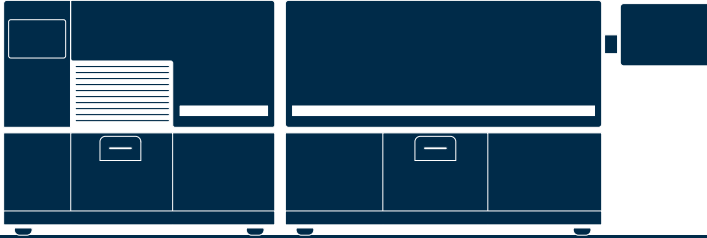
Result

DNA magenta red

Results

LUNG





Bio - Optica

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

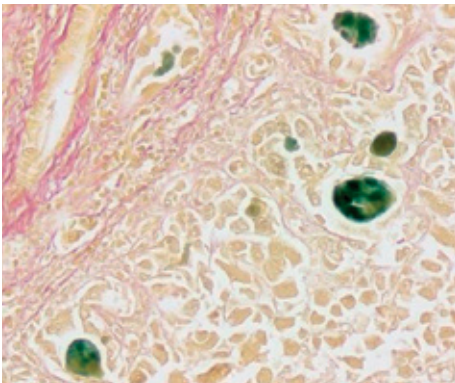
For highlighting bilirubin pigment on tissue sections.

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

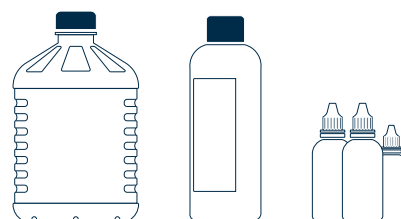


Result

Bilirubin green

Connective red

Collagen yellow



Staining and mounting

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

Paraldehyde Fuchsin

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

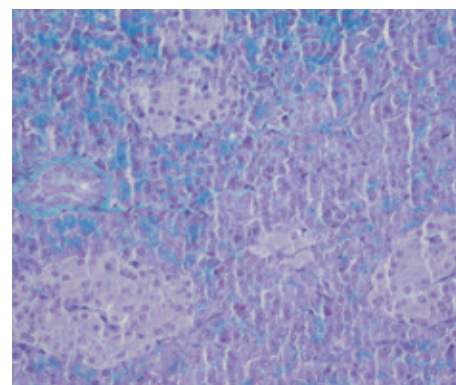
Cellular nuclei dark violet

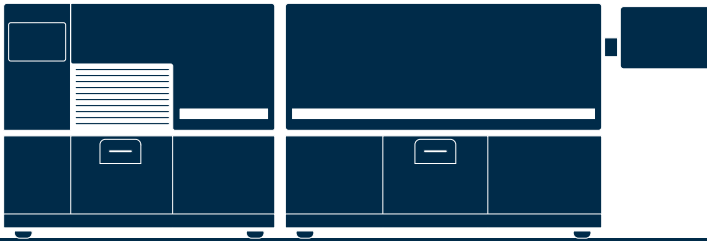
Connective tissue red

Tessuto connettivo green

Results

PANCREAS





Bio - Optica

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

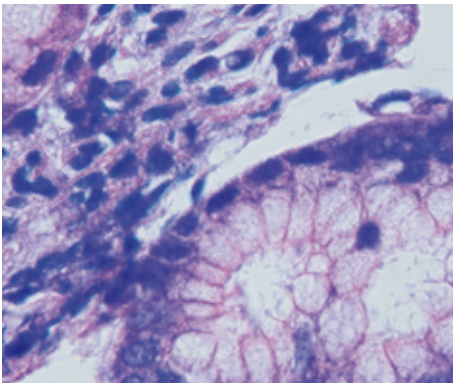
Method for viewing Helicobacter Pylori on sections from gastric biopsy. The qualitative and quantitative composition of the stain and the accurate differentiation make it possible to identify bacteria selectively on a particularly clean background.

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



Staining and mounting

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

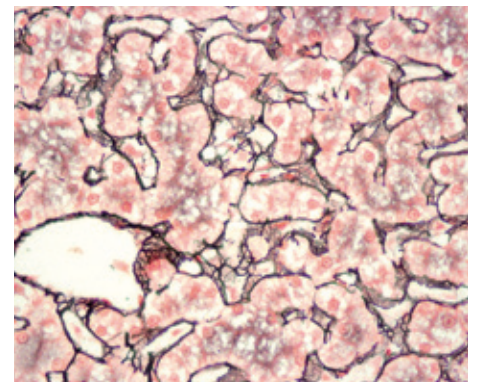
WARNINGS

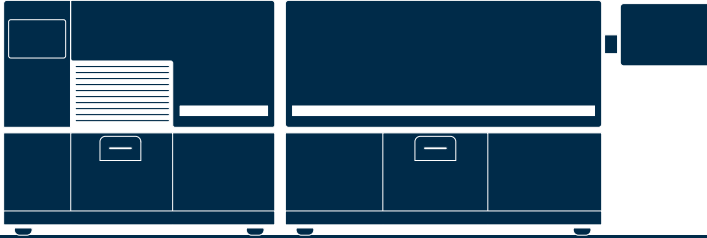
The success of the reaction depends on rigorous adherence to the following rules:

- 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

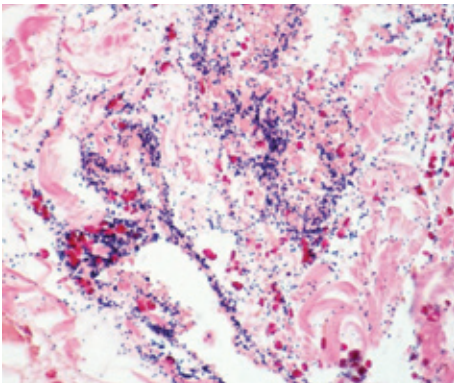
Method for differentiating Gram-positive and Gram-negative bacteria on histological sections, smears and tissue apposition.

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

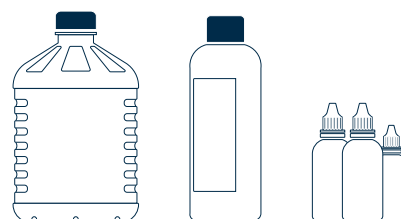


Result

Gram-positive bacteria blue

Gram-negative bacteria red

Nuclei red



Staining and mounting

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

Grimelius

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.

Result

Argyrophilic granules from light brown to black

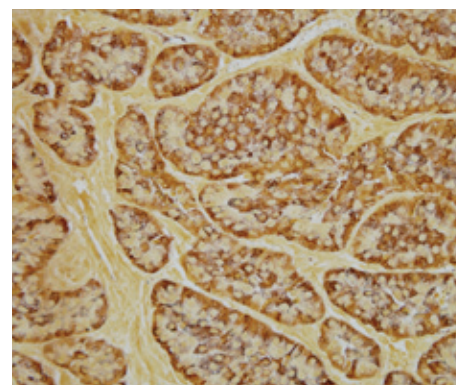
WARNINGS

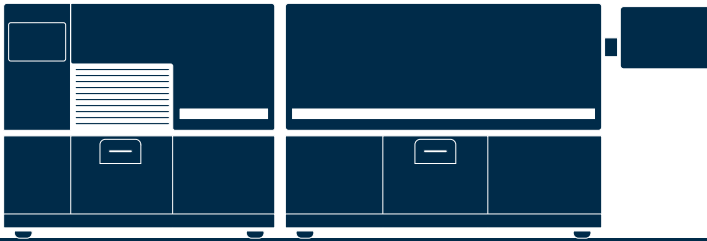
Use only thoroughly cleaned glassware

- 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.

Results

OVARIAN CANCER METASTASIS





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

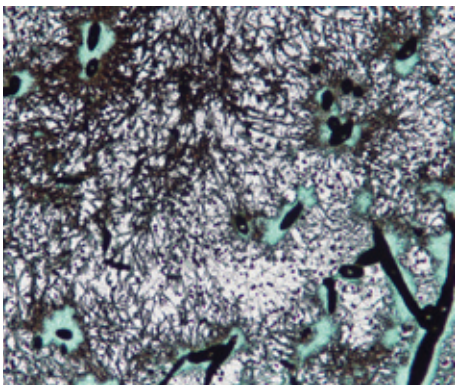
Method used for viewing fungi on a tissue section.

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

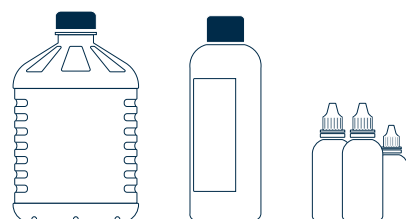
Mucins dark gray

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.



Staining and mounting

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

Grocott for microwave 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

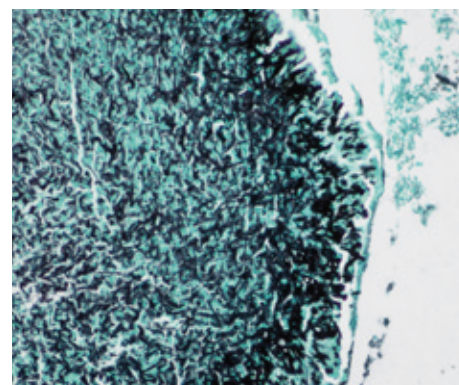
WARNINGS

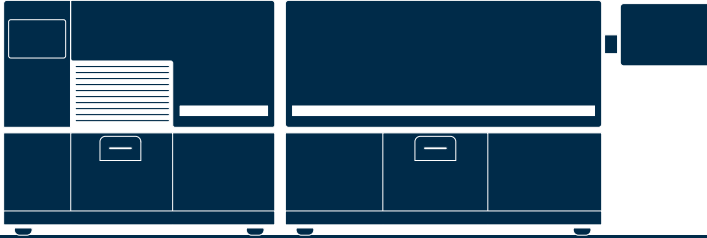
The success of the reaction depends on rigorous adherence to the following rules:

- 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

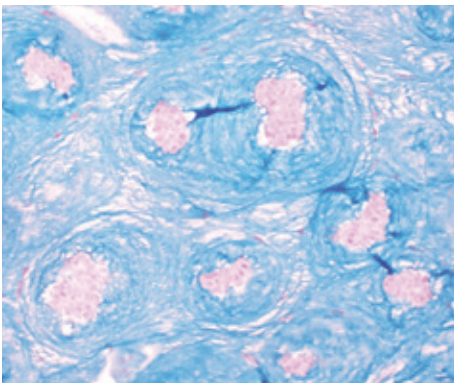
The digestion of histological sections with hyaluronidase is indicated for removing the following complex carbohydrates: hyaluronic acid and chondroitin sulfate A and B.

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.



Staining and mounting

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

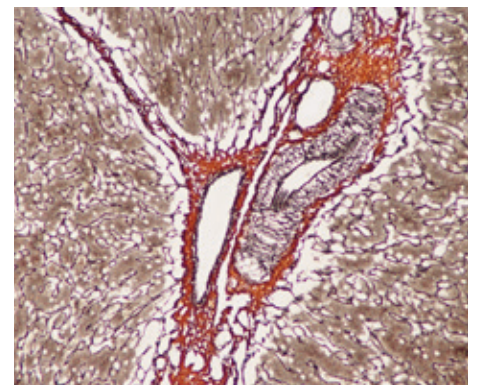
The success of the reaction depends on rigorous adherence to the following rules:

- 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.

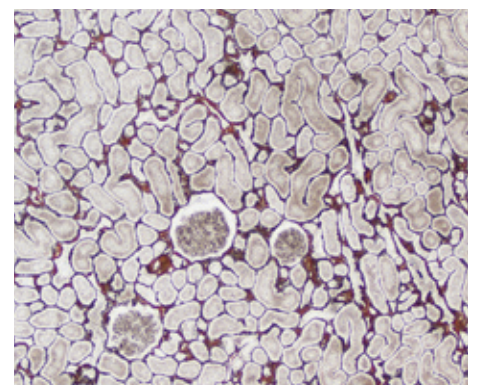
Silver impregnation

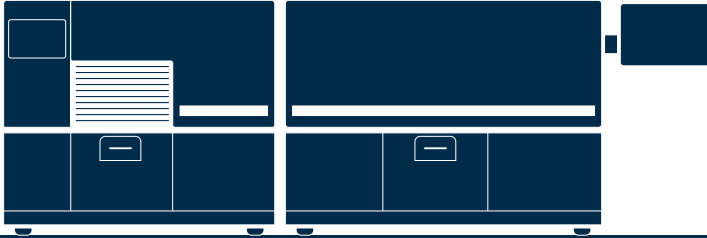
Results

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

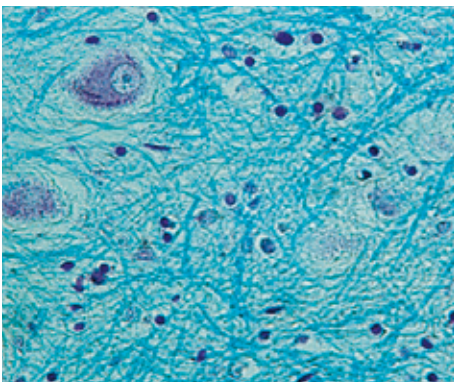
Method indicated for showing myelin and phospholipids on histological sections.

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

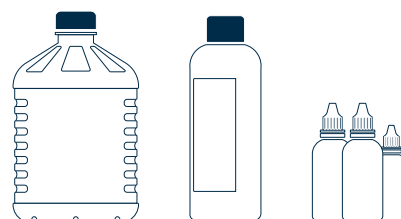


Result

Myelin turquoise blue

Neurons and glial nuclei from pink to violet

Nissl substance pale pink



Staining and mounting

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.

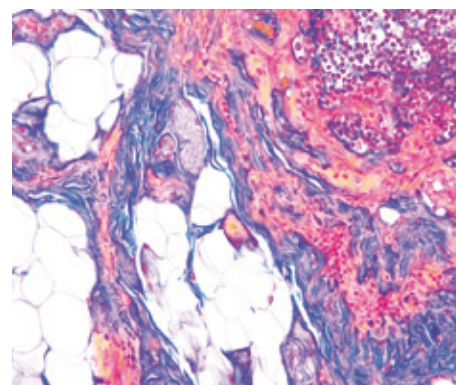
Result

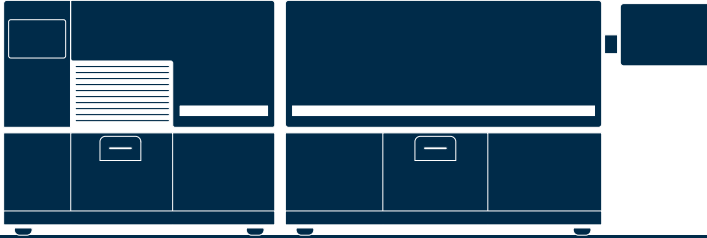
Nuclei, neurofibrils, myoglia, cartilage and bone tissue	red
Collagen fibrils	blue
Myelin	golden yellow
Elastic fibers	pale pink – yellow or colorless
Erythrocytes	yellow

Mallory's Trichrome

Results

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

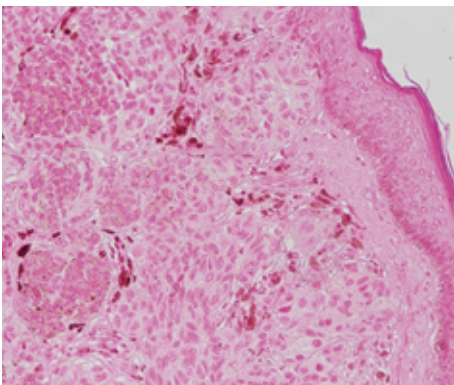
The method of choice for viewing melanin pigment on sections of histological tissue.

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

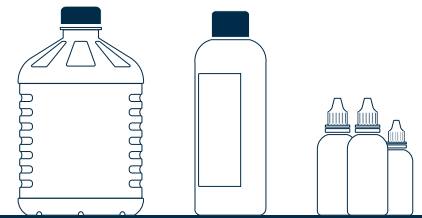
Results



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



Staining and mounting

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.

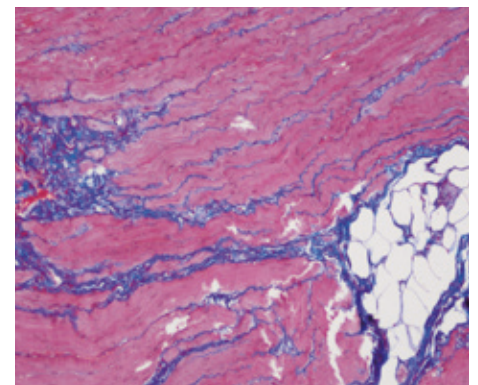
Result

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

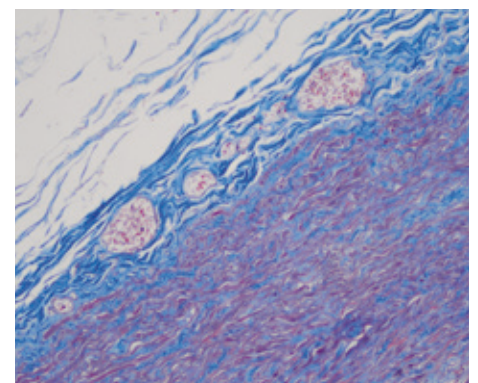
Masson Trichrome

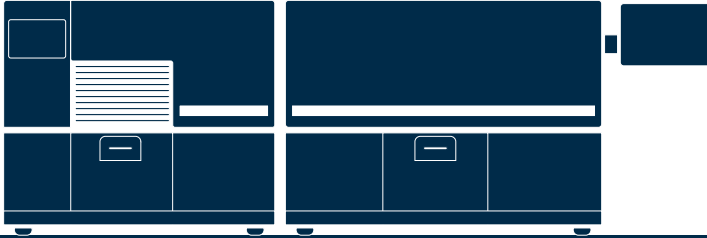
Results

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.

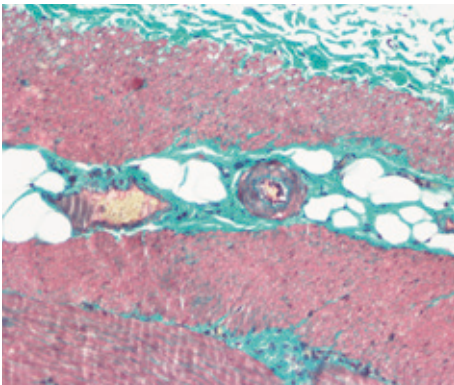
Particularly indicated for black and white micro-photography.

Method

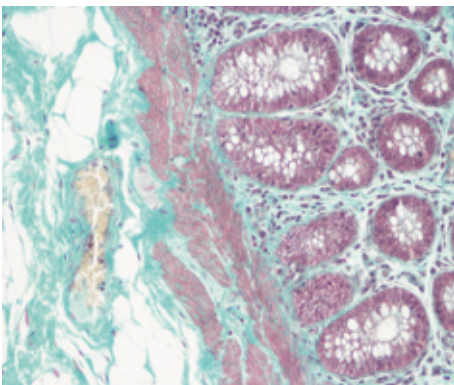
- 1) Bring the section to the distilled water.
- 2) Dispense 6 drops of reagent A onto the section and add 6 drops of reagent B : leave to act for 10 minutes.
- 3) Without washing, drain the slide and dispense 10 drops of solution C onto the section: leave to act for 4 minutes.
- 4) Wash quickly (3-4 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

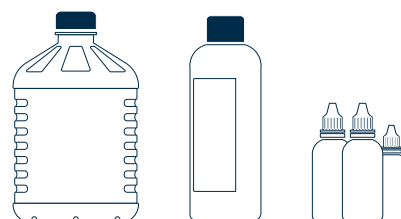
Nuclei and gametes black

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



Staining and mounting

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

May Grünwald Giemsa

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

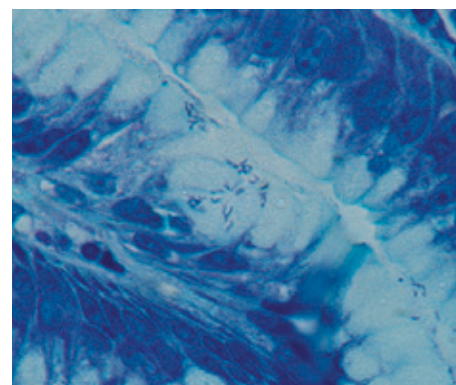
- 1) De-wax the section and bring it to the 70° ethanol.
- 2) Prepare the buffer solution: Pour 20 ml of distilled water into the attached container and add 10 drops of concentrated solution B. The diluted solution thus obtained will be designated "buffer solution B".
- 3) Dispense 10 drops of buffer 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.

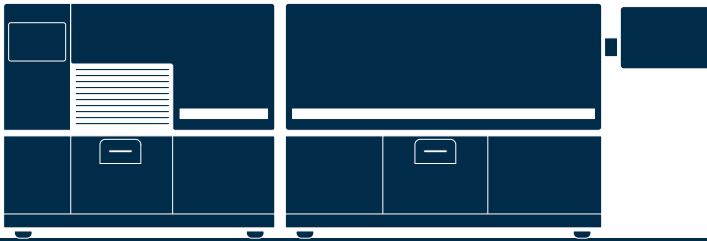
Result

Nuclei	blue
Basophilic cytoplasm	from sky blue to dark blue
Acidophilic cytoplasm	pink
Bacteria	blue

Results

STOMACH





Bio - Optica

Mucicarmin

PRODUCT AND APPLICATION

CODE

● **Mayer's mucicarmin**

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.

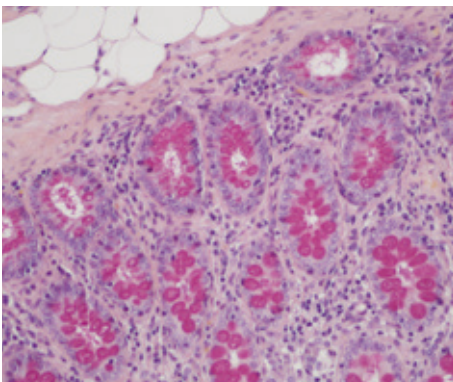
The use of Mucicarmin is of relative specificity, in fact mucins deriving from fibroblasts are generally weakly highlighted.

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

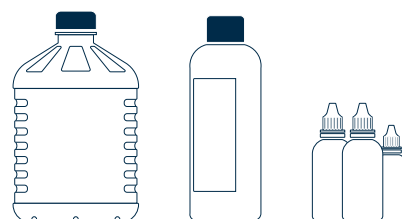


Result

Mucins from dark pink to red

Nuclei blue - violet

Other components orange



Staining and mounting

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

Nitro blue tetrazolium

Application

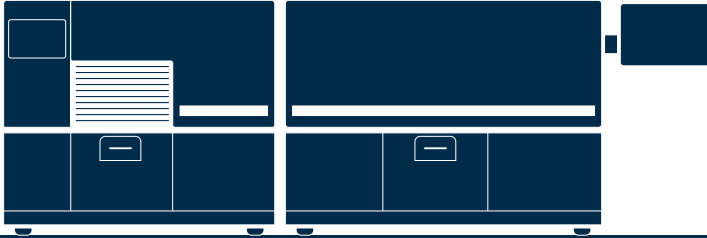
Post mortem, infarcted areas of the myocardium undergo a series of changes that are visible in sequence. In the first 6-12 hours after the acute episode, the myocardial infarction is generally neither macroscopically nor microscopically detectable. The ischemic muscle can, however, be highlighted, showing 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 O

PRODUCT AND APPLICATION

CODE

● **Oil red O**

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.

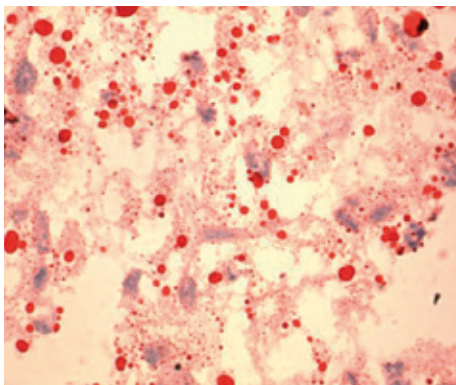
Fixation: you are advised to use saline formalin or Baker fixative in order to make the phospholipids less soluble.

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



Staining and mounting

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

Orcein

Application

Identification of elastic fibers on tissue sections.

Method

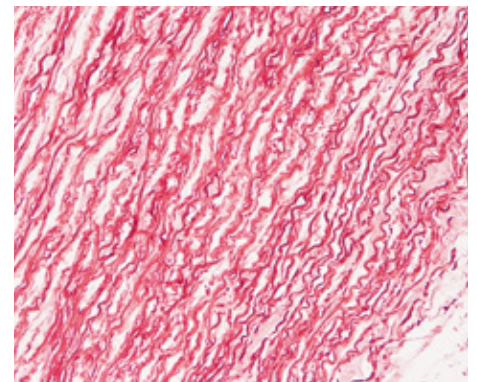
- 1) Bring the section to the distilled water.
- 2) Dispense 5 drops of reagent A and 5 drops of reagent B onto the section. Leave to act for 4 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent C onto the section. Leave to act for 1 minute.
- 5) Wash in distilled water.
- 6) Prepare 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.

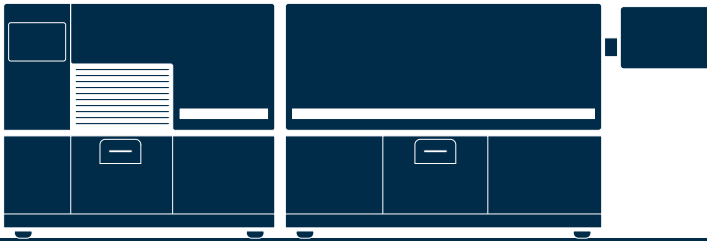
Result

Elastic fibers	from dark brown to dark purple
Background	almost colorless

Results

ELASTIC FIBERS





Bio - Optica

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

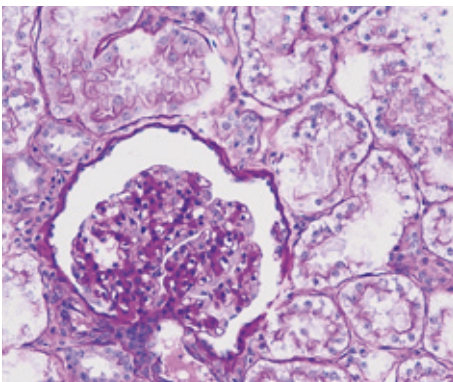
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 20 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of solution 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.

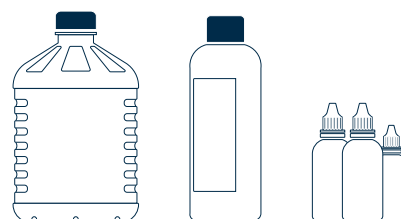
KIDNEY

Results



Result

PAS-positive substances	magenta red
Nuclei	blue



Staining and mounting

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

P.A.S. Picro Indigo Carmine

Application

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

Method

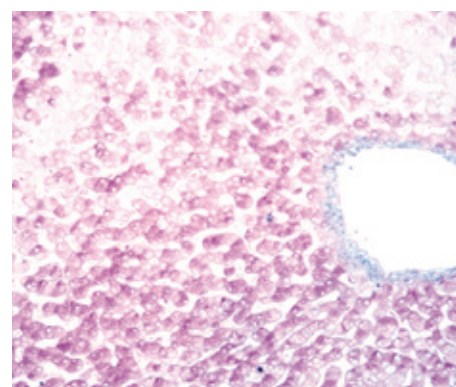
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 15 minutes.
- 5) Wash in distilled water.
- 6) Dispense 10 drops of reagent 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.

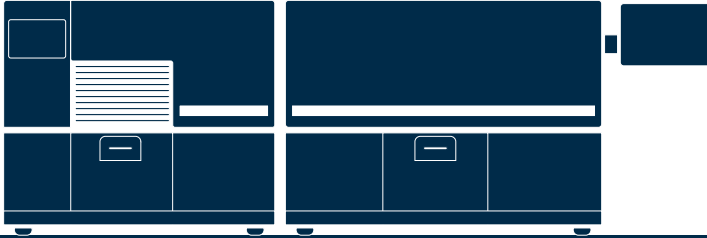
Result

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

Results

LUNG





Bio - Optica

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

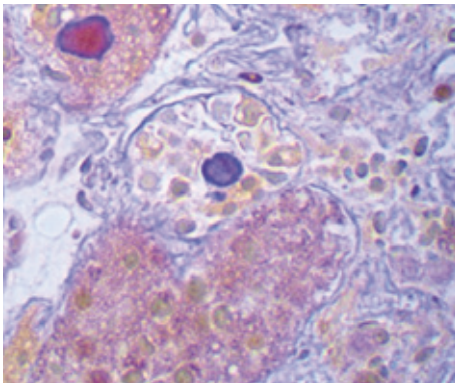
P.A.S. reaction particularly indicated for the pituitary gland for differentiating alpha cells from beta cells. The results are good on all tissues.

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

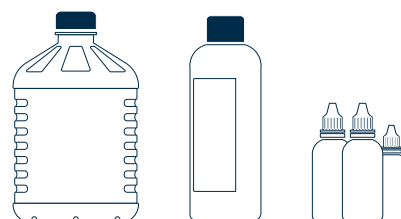


Result

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



Staining and mounting

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

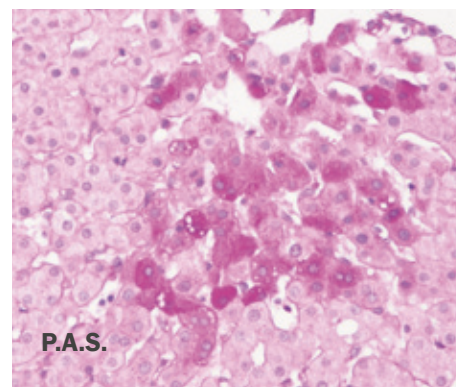
PAS-positive substances magenta red

Nuclei blue

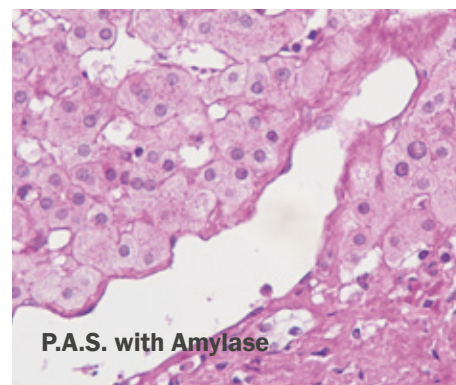
P.A.S. - A

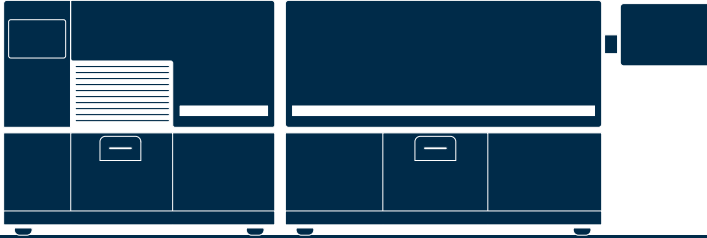
Results

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.

Result

Reactive ferric iron	blue
Nuclei	red

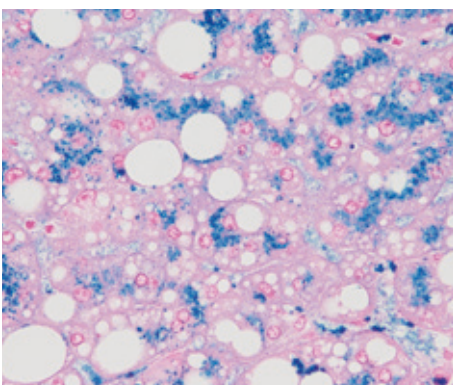
Notes:

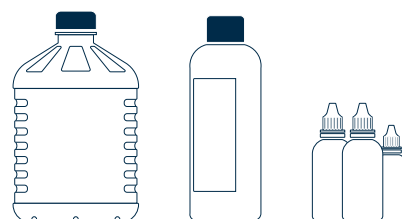
False positives may be caused by three easily identifiable factors:

- 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.

LIVER

Results





Staining and mounting

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

Perls - Van Gieson

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

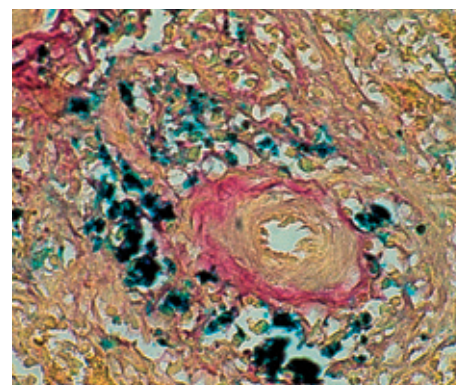
Reactive ferric iron blue

Collagen purple red

Cytoplasm, muscle, stratum corneum of the epithelium, glia and erythrocytes yellow

Results

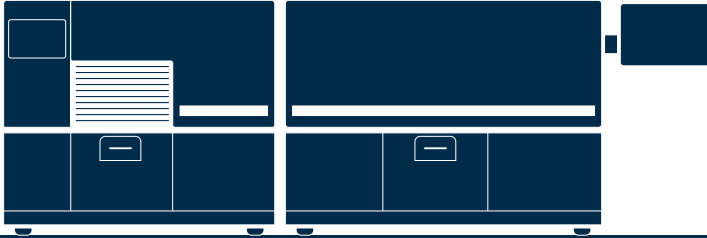
LIVER



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.



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

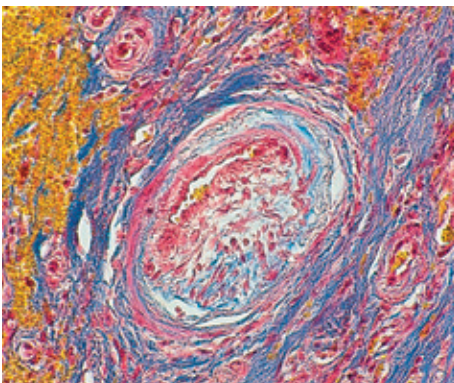
Trichrome stain recommended for connective sections.

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



Staining and mounting

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

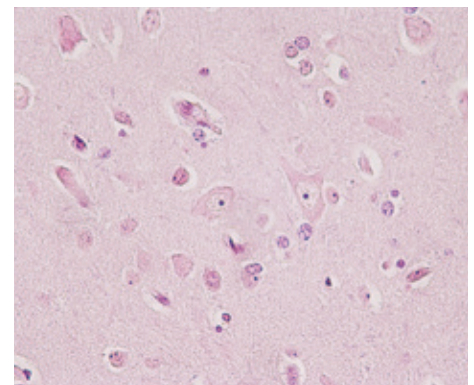
Nuclei, fibrin (most), myofibrils, astrocytes, certain elastic fibers, glia, myelin fibers dark blue

Collagen, bone matrix, cartilage brick red in various shades

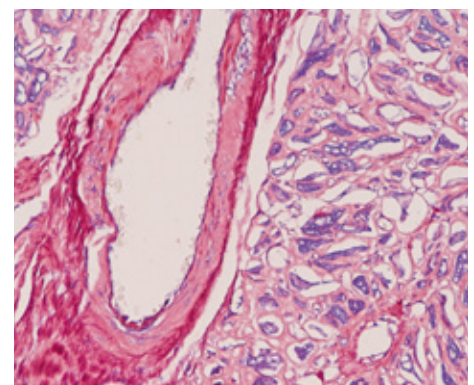
P.T.A.H. Phosphotungstic Acid Hematoxylin

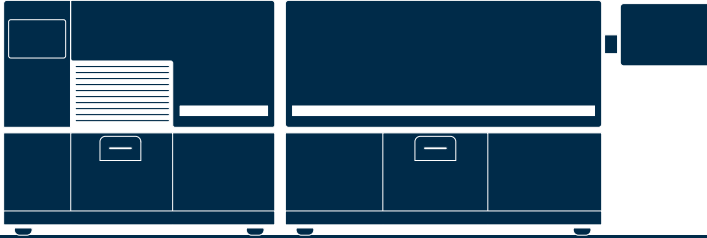
Results

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

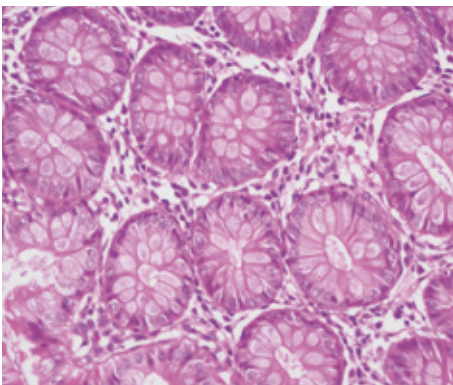
Rapid method for staining cryostat sections with a thickness of 6 microns.

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

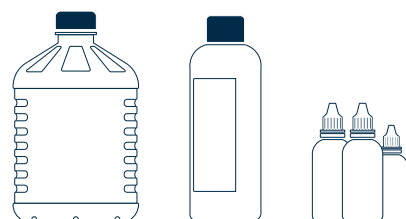
Results



Result

Cytoplasm, connective tissue pink in various shades and intensities

Nuclei blue



Staining and mounting

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

Congo Red

Application

Method for highlighting amyloid on tissue sections.

Method

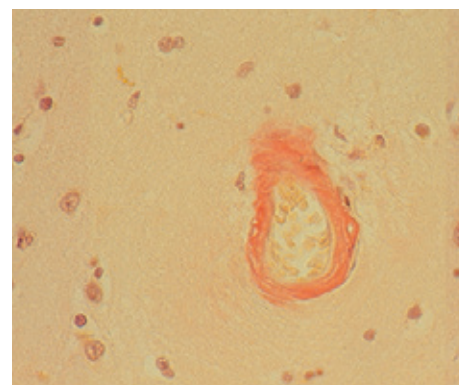
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 15 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 30 seconds.
- 5) Wash in running tap water for 5 minutes.
- 6) Dispense 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.

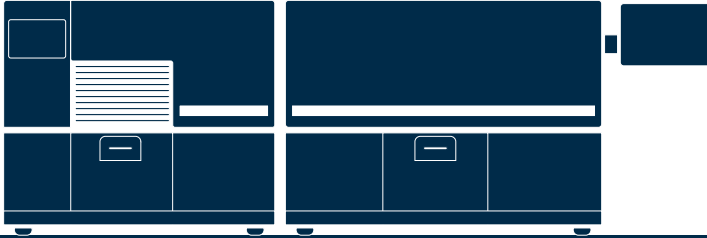
Result

Amyloid substance	brick red and birefringent in polarized light
Nuclei	blue

Results

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

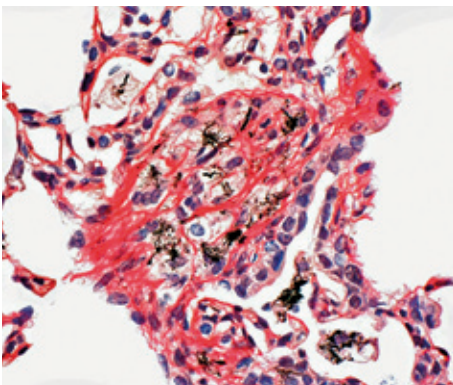
Method for highlighting amyloid in tissues fixed in formalin and embedded in paraffin.

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

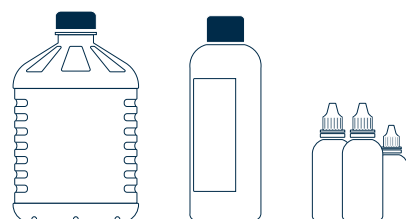
Results



Result

Amyloid substance pink - red

Nuclei blue



Staining and mounting

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

Picrosirius Red

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

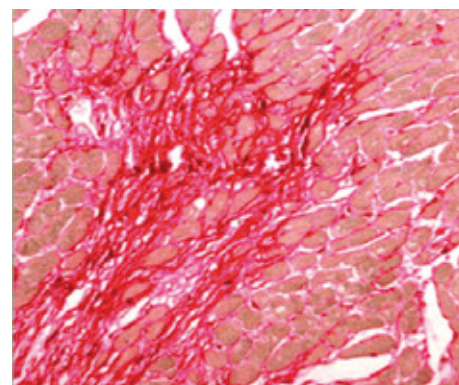
Collagen fibers red

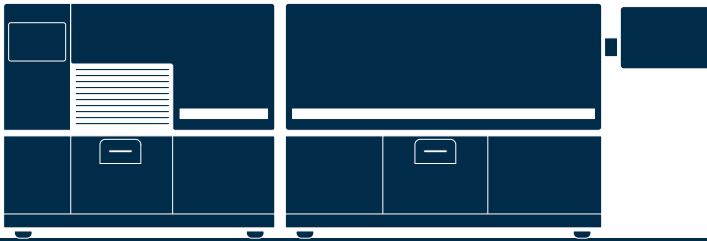
Nuclei blue

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

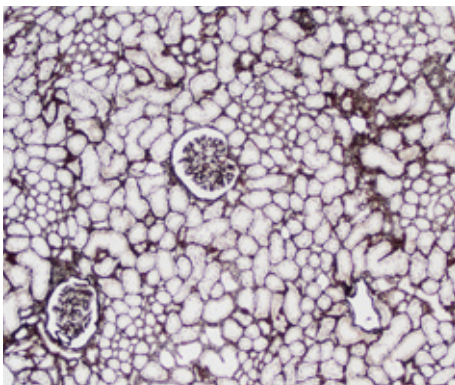
Method used for viewing argyrophilic elements and mucopolysaccharides (basal membranes, mycetes, bacteria, etc.) on tissue sections. It is the method of choice for studying the basal membrane in renal biopsy.

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.



Staining and mounting

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.

Result

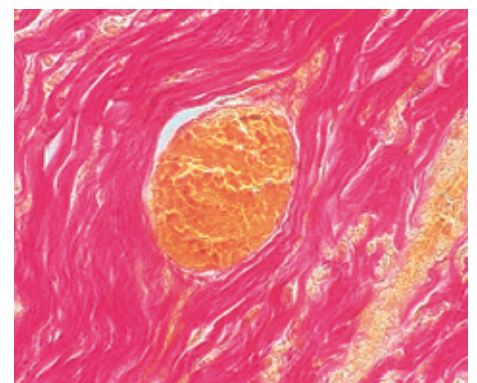
Nuclei black

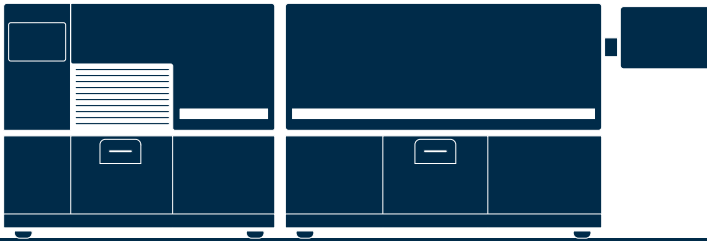
Collagen fibers purple red

Cytoplasm, smooth and striated muscle, stratum corneum of the epithelium, glia and erythrocytes yellow

Results

CONNECTIVE TISSUE





Bio - Optica

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.

Result

DNA pale green

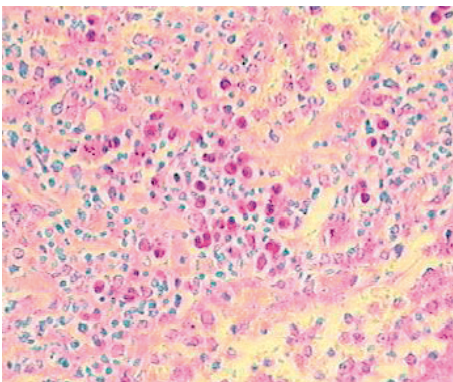
RNA (plasma cells, nucleoli, blasts) pink - red

Mast cell granules blue

Background contrast turquoise

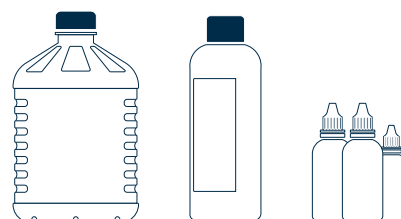
CONNECTIVE TISSUE

Results



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).



Staining and mounting

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.

Result

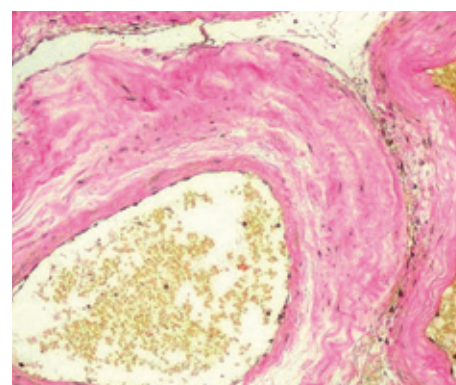
Elastic fibers and nuclei black

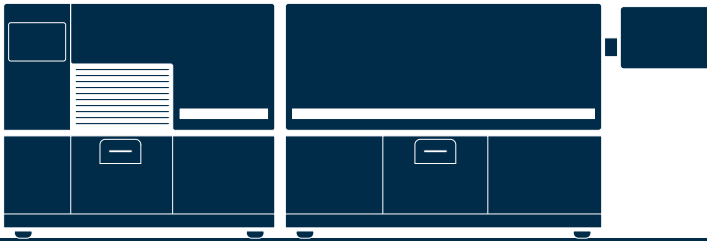
Collagen red

Other tissue elements yellow

Results

ARTERY





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

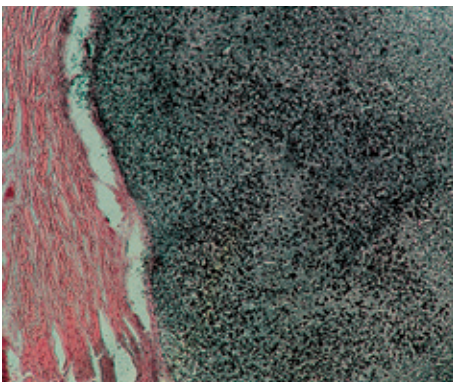
Method indicated for viewing calcium ions on histological sections.

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

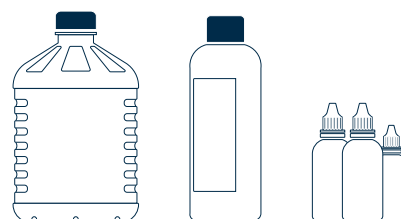
Results



Result

Sites where calcium salts were present black

Nuclei red



Staining and mounting

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

Warthin-Starry

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.

Result

Spirochetes and other micro-organisms black

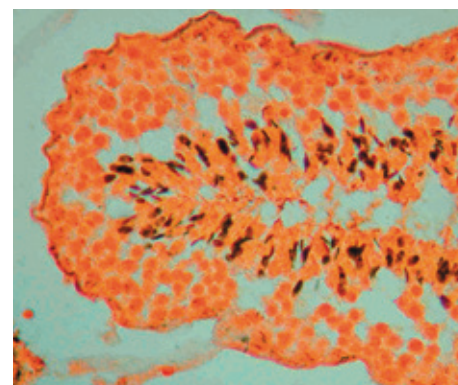
Background golden brown

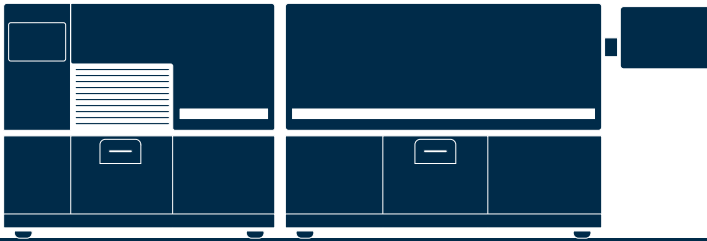
WARNINGS

- 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).

Results

SPIROCHETES





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

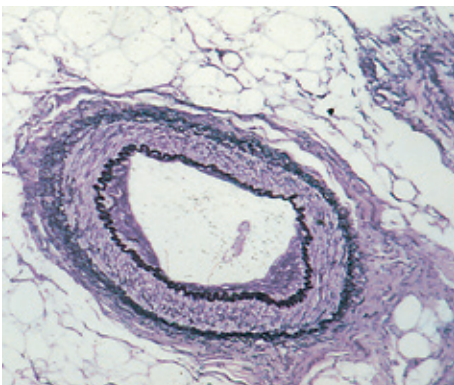
Method indicated for demonstrating elastic fibers on histological sections.

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

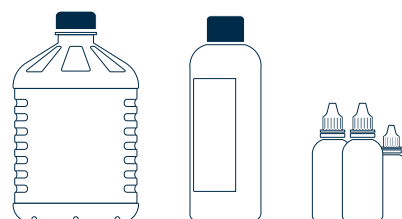
Results



Result

Elastic fibers

from dark blue to black



Staining and mounting

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

Weigert - rapid method

Application

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

Method

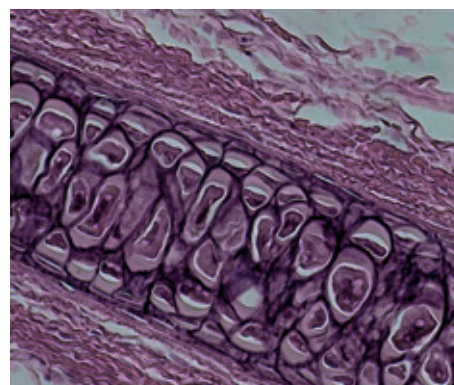
- 1) Bring the section to the distilled water.
- 2) Dispense 10 drops of solution A onto the section: leave to act for 5 minutes.
- 3) Wash in distilled water.
- 4) Prepare the humid chamber as follows: soak the disc of filter paper with 20 drops of reagent B, insert the slide in the humid chamber and 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.

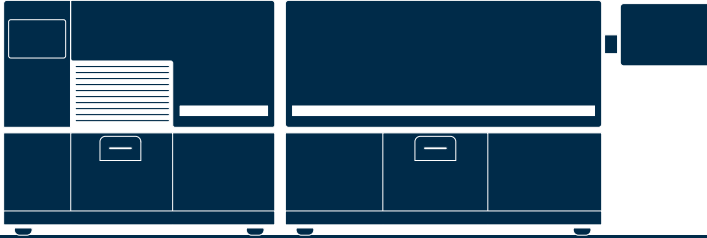
Result

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.

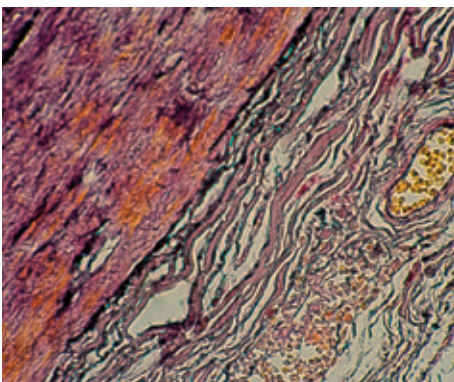
Van Gieson trichrome is the most commonly used method in association with Weigert staining for elastic fibers.

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.

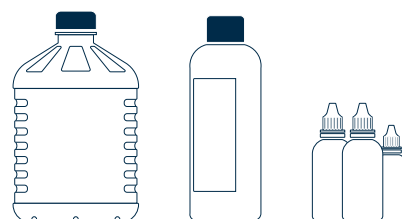
CONNECTIVE TISSUE AND ELASTIC FIBERS

Results



Result

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



Staining and mounting

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.

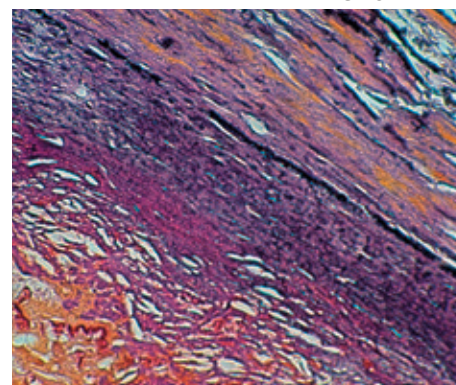
Result

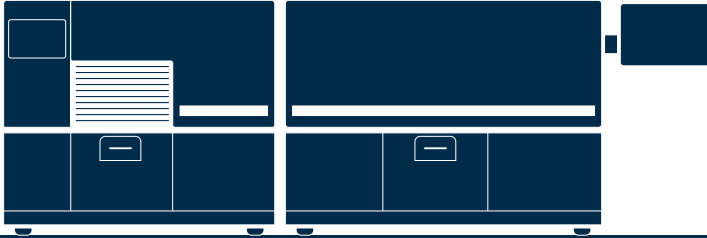
Elastic fibers	purple - brown
Nuclei	black
Collagen	red, in various shades
Connective tissue, erythrocytes	yellow

Weigert Van Gieson rapid method

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

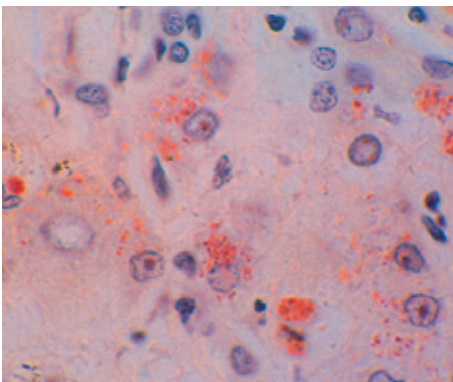
Method for viewing copper on sections of liver tissue.

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.

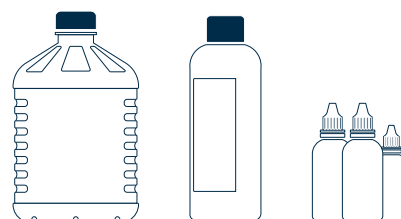
LIVER

Results



Result

Copper	red - orange
Nuclei	blue



Staining and mounting

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

Ziehl-Neelsen

Application

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

Method

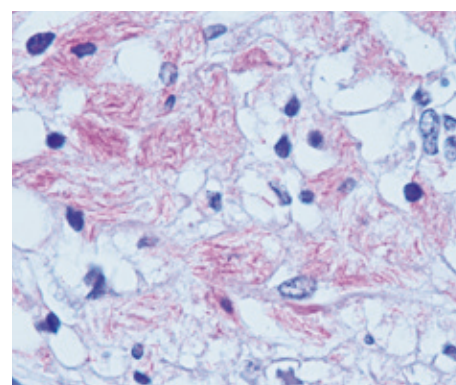
- 1) Bring the sections to the distilled water.
- 2) Dispense 10 drops of reagent A onto the section: leave to act for 10 minutes.
- 3) Wash in distilled water.
- 4) Dispense 10 drops of reagent B onto the section: leave to act for 30 minutes.
- 5) Wash in distilled water and dry the slide with filter 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.

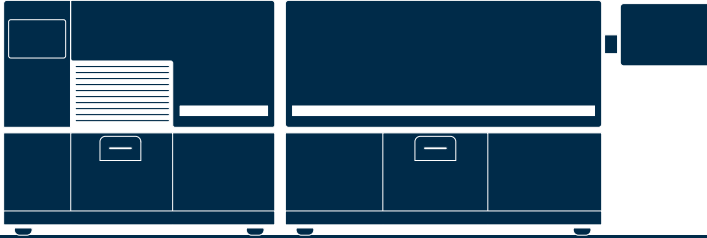
Result

Koch's bacillus and other acid-resistant elements	red
Nuclei	blue - violet

Results

LUNG





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

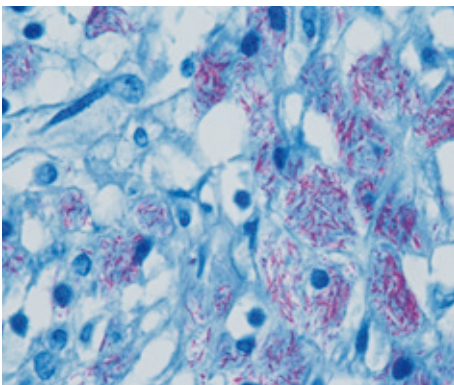
For highlighting pathogenic mycobacteria with particular regard to Koch's and Hansen's bacillus, on histological sections, sputum and culture smears, and appositions.

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

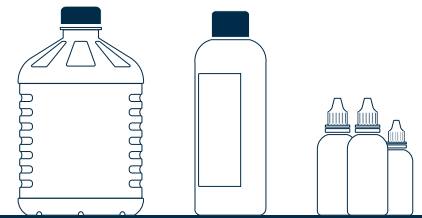
Results



Result

Koch's bacillus, Hansen's bacillus and other acid-resistant elements red - violet

Background contrast light blue



Staining and mounting

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

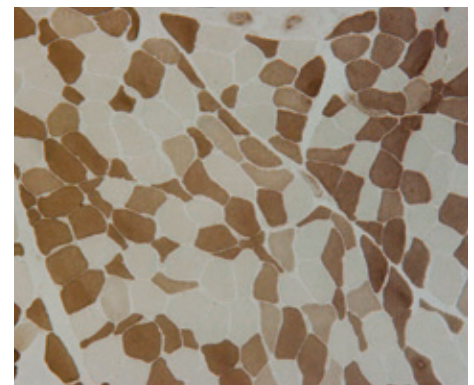
Section 4.7 - preincubation at pH 4.7

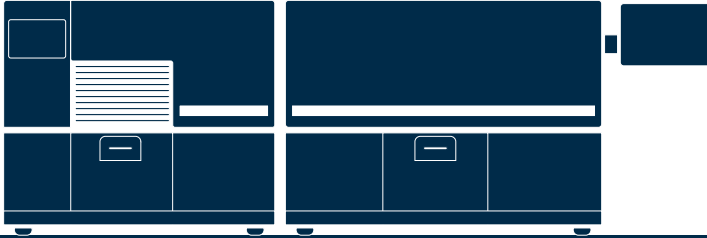
Type 1 fibers	brown
Type 2A fibers	white - beige
Type 2B fibers	brown - dark brown

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

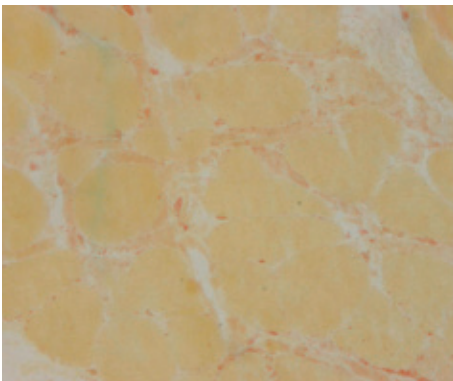
CODE

- **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

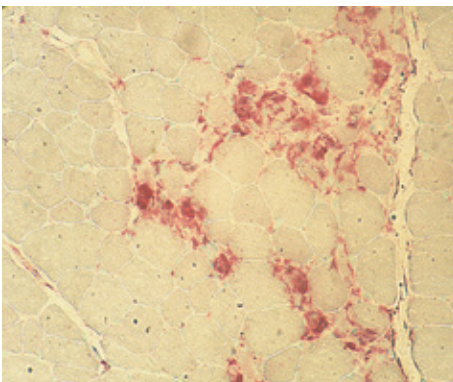
CODE

- **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.
Present in macrophages and lysosomes; identifies necrosis and regeneration.

Result

Positive enzymatic activity of acid phosphatase	red
Background and nuclei	green



Staining and mounting

PRODUCT AND APPLICATION

CODE

- **Alkaline phosphatase**

30-30121LY

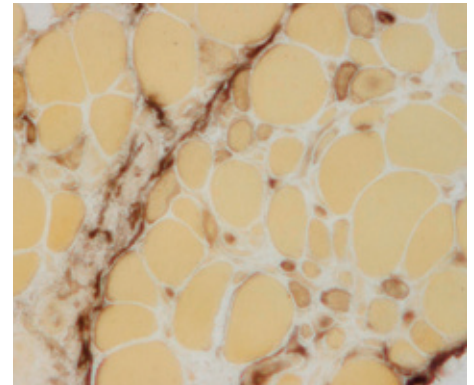
Evaluating enzymatic activity of alkaline phosphatase. Useful for highlighting the sites of phagocytosis and inflammation in muscle biopsies.

Result

Positive enzymatic activity of alkaline phosphatase black

Background yellow ochre

Alkaline phosphatase



PRODUCT AND APPLICATION

CODE

- **Phosphofructokinase (PFK)**

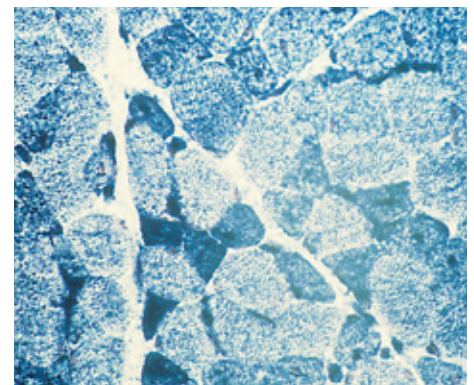
30-30117LY

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.

Result

Positive PFK activity dark blue

Phosphofructokinase (PFK)



PRODUCT AND APPLICATION

CODE

- **Phosphorylase**

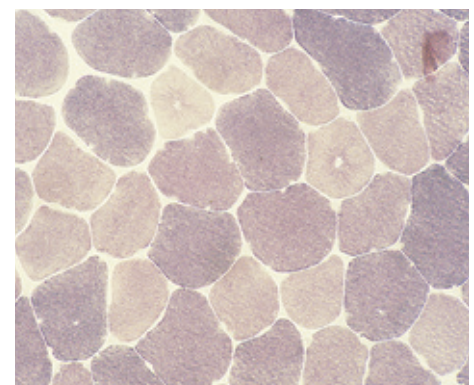
30-30123LY

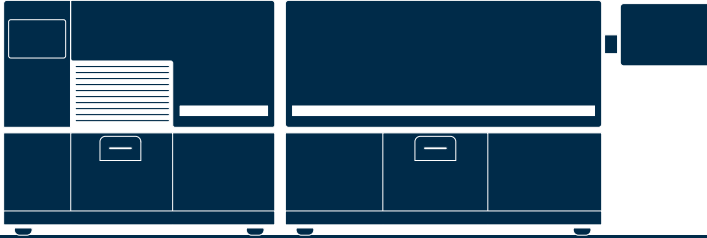
Highlighting enzymes belonging to the phosphorylase class involved in glycogenolysis.

Result

Phosphorylase enzyme activity various shades of blue

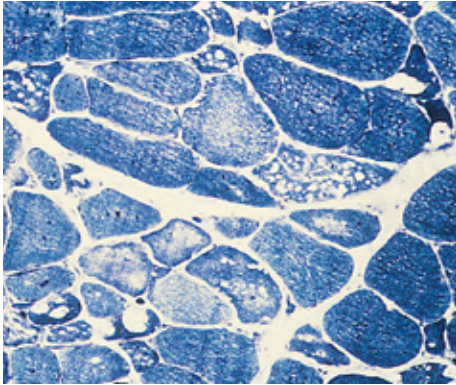
Phosphorylase





Bio - Optica

Myoadenylate deaminase



PRODUCT AND APPLICATION

CODE

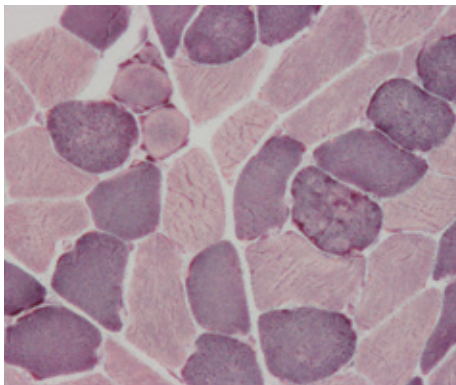
- **Myoadenylate deaminase** 30-30116LY

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

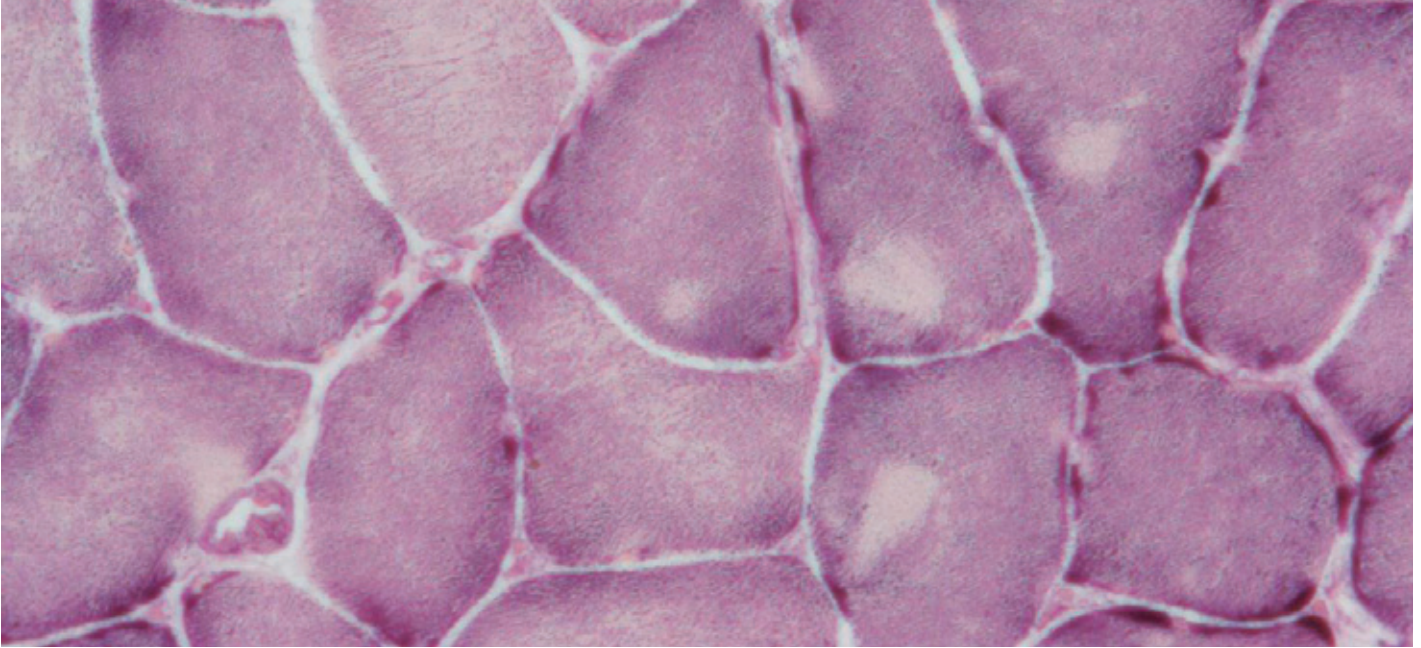
Evaluation of enzymatic activity of succinate dehydrogenase (SDH) detected specifically in the mitochondria.

Result

Positive SDH activity gray - blue

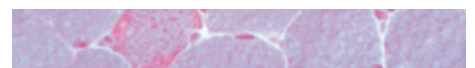


Staining and mounting



Fixatives for enzyme histochemistry

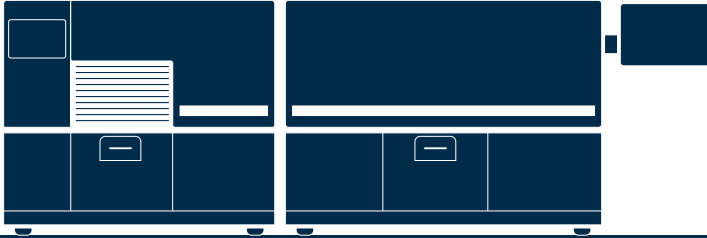
PRODUCT	PACK	DESCRIPTION	CODE
Backer fixative	1x500 ml	Facilitates staining with Oil Red O	30-30111
Fixative for acid phosphatase	1x100 ml	For use in enzyme histochemical staining for acid phosphatase	30-30120



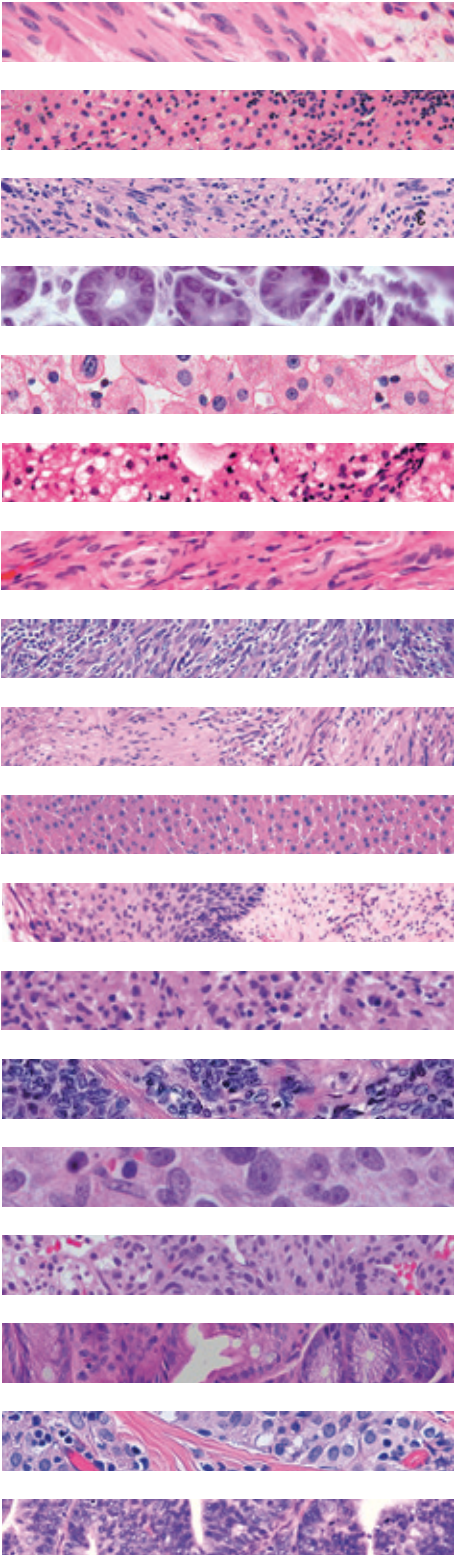
Staining solutions for enzyme histochemistry

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

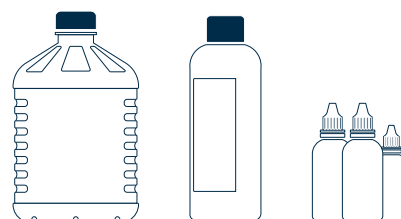
Bio-Optica provides operators with a complete range of nuclear stains; all solutions are stable and yield excellent cellular details.

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

Histology solutions

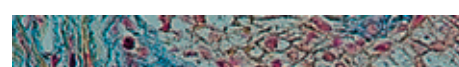
In addition to a number of important functional benefits (safety, time saving, reduced workload, easy estimation of costs per test), Bio-Optica's ready-to-use solutions yield excellent, reproducible results. These are essential characteristics for meeting the requirements of laboratories adhering to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

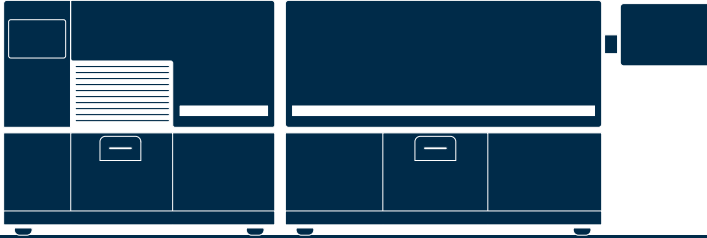
PRODUCT AND DESCRIPTION	PACK	CODE
● Alcian Blue pH 1 Mowry	1x500 ml	05-M26005
● Alcian Blue pH 2,5 Mowry	1x150 ml	05-B26003
	1x500 ml	05-M26003
	1x1 l	05-26003/L
● Alcian Blue pH 3,1 Mowry	1x150 ml	05-B26002
● Acridine Orange	1x150 ml	05-B07013
● Orange G Pearse	1x150 ml	05-B29003
● Auramine Rhodamine	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



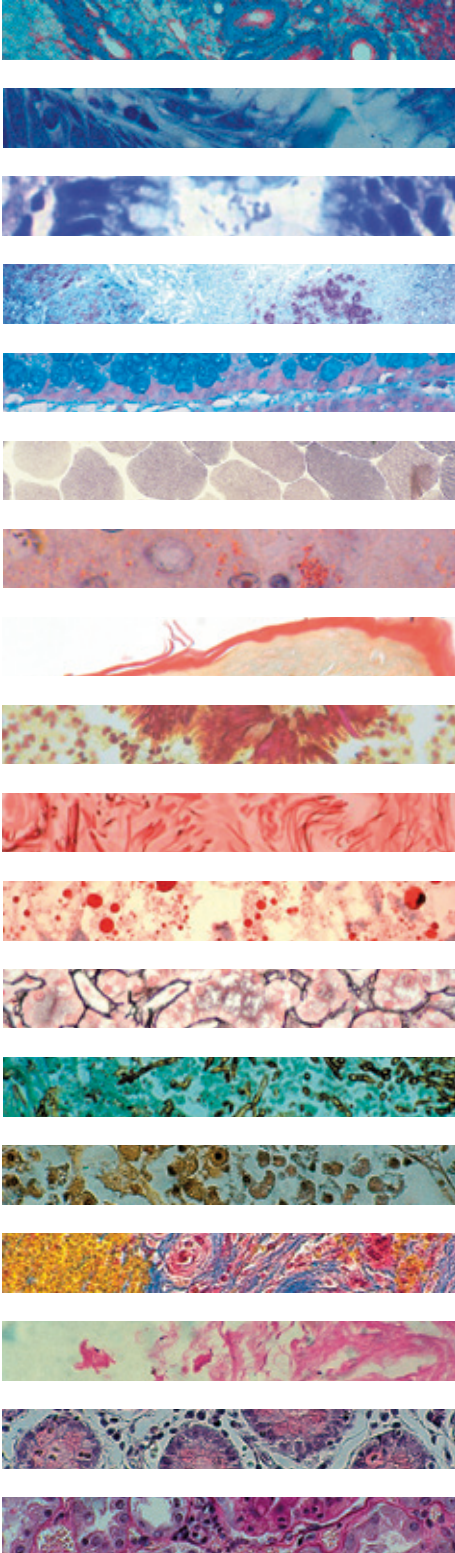
Staining and mounting

PRODUCT AND DESCRIPTION	PACK	CODE
● Ziehl Neelsen Methylene Blue	1x150 ml 1x1 l	05-B20003 05-20003/L
● Toluidine Blue	1x150 ml 1x500 ml	05-B23001 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 1x1 l 1x2,5 l	05-M10002 05-10002/L 05-10002E
● Eosin Y alcoholic solution 0,5%	1x150 ml 1x500 ml 1x1 l 1x2,5 l	05-B10003 05-M10003 05-10003/L 05-10003E
● Eosin Y Plus alcoholic solution	1x500 ml 1x1 l	05-M11007 05-11007/L
● Eosin Phloxin solution	1x150 ml 1x500 ml 1x1 l	05-B10020 05-M10020 05-10020/L
● Erythrosine orange Dominici	1x500 ml	05-M12003
● Fuchsin, phenicated Ziehl	1x500 ml 1x1 l	05-M20007 05-20007/L
● Paraldehyde Fuchsin Gridley	1x150 ml	05-B21002
● Fuchsin ponceau Masson	1x150 ml	05-B10005
● Giemsa Pappenheim	1x500 ml 1x1 l 1x2,5 l	05-M12005 05-12005/L 05-12005E
● Luxol Fast Blu Kluwer Barrera	1x150 ml	05-B18001
● May Grunwald Pappenheim	1x500 ml 1x1 l 1x2,5 l	05-M12002 05-12002/L 05-12002E
● Mucicarmine solution	1x150 ml	05-B26001
● Nuclear Fast Red	1x150 ml 1x500 ml	05-B07006 05-M07006
● Orcein Shikata solution	1x150 ml	05-B11001
● Picrofuchsin Van Gieson	1x150 ml 1x500 ml 1x1 l	05-B10012 05-M10012 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





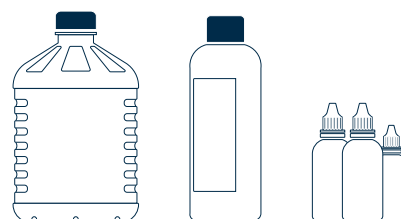
Bio - Optica



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



Staining and mounting

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

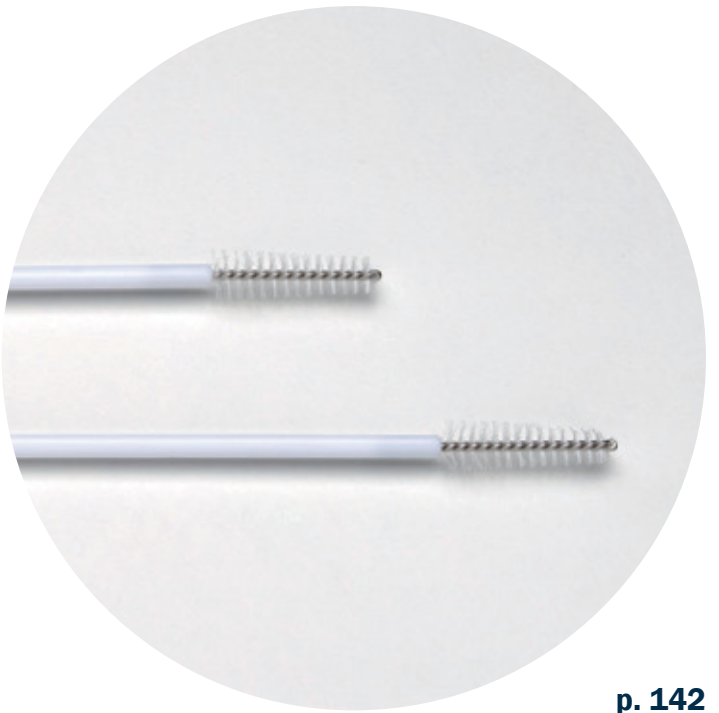


Coverslips

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



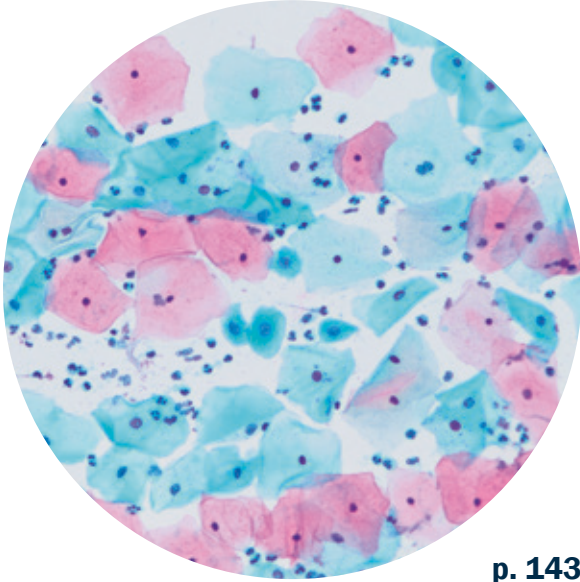


p. 142



p. 143

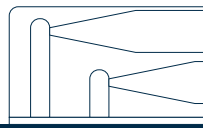
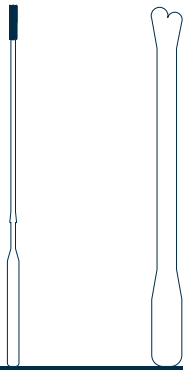


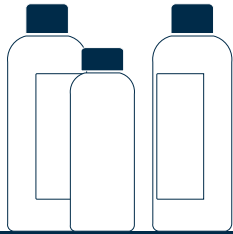


p. 143



p. 142





Bio - Optica



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

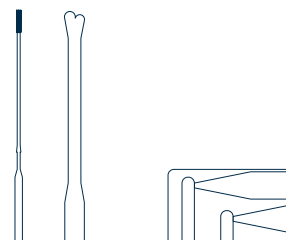
PRODUCT AND DESCRIPTION	PACK	CODE
● Cy-Fix Fixative for liquid-based cytology	54x25 ml	05-01C50P
	1x1 l	05-01C50L
	54x25 ml (colorless)	05-01C50PN
● Cy-FixM Cytology fixative for mucus-rich samples	54x25 ml	05-01C51P
	1x1 l	05-01C51L
● Bio-fix Spray fixative for vaginal cytology	4x200 ml	05-X200
● Saccomanno's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

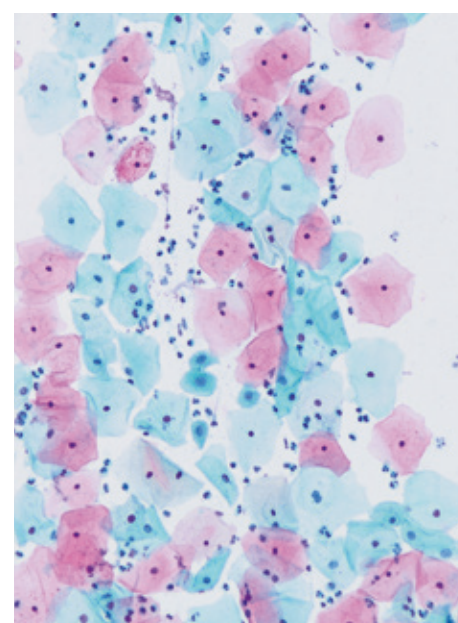
Also known as “Fast Papanicolaou”. The method involves only two stains, one nuclear and one cytoplasmic.

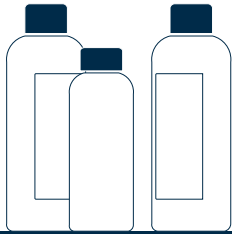
PRODUCT	PACK	CODE
● IWA - Isaach Wurch nuclear stain	1x1 l	05-12020/L
● IW3 - Isaach Wurch cytoplasmic stain	1x1 l	05-12021/L

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





Bio - Optica

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

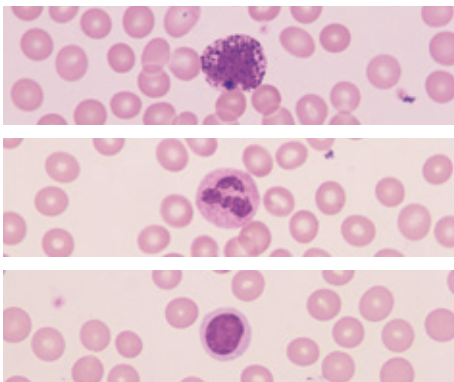
Application

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

Method

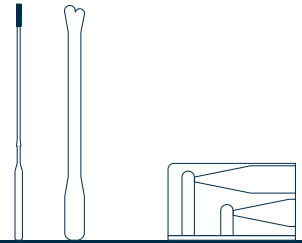
- 1) Pour 100 ml of reagent B (buffer - concentrated solution) into a 1000 ml calibrated flask and top up to the required volume with tap water (buffer - work solution). Keep the two buffer solutions at 4° - 6° centigrade.
- 2) Dispense 10 drops of reagent A onto the slide; leave to act for 5 minutes. 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



PRODUCT AND APPLICATION

CODE

MGG Quick Stain

- **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.

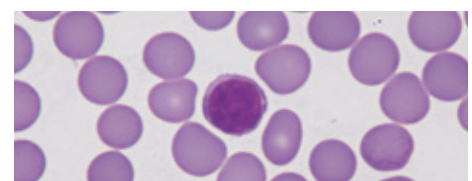
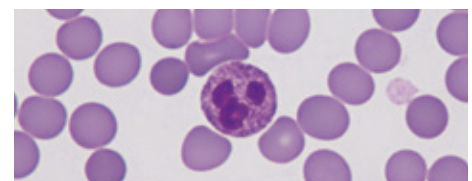
Method

- 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).

Result

The colors and details are superimposable on those of May Grunwald Giemsa standard staining

Results

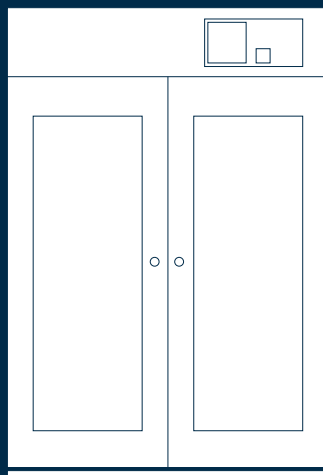




p. 148



p. 154

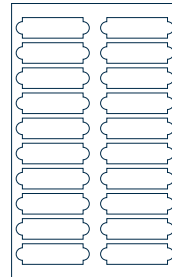
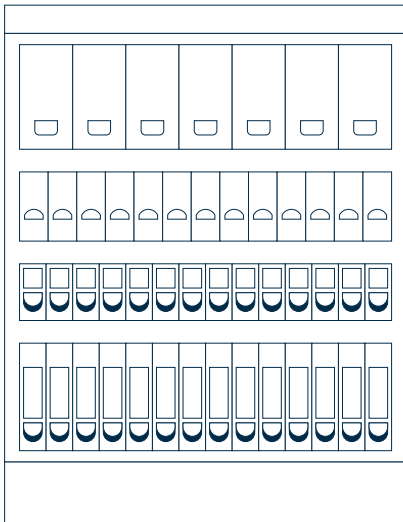


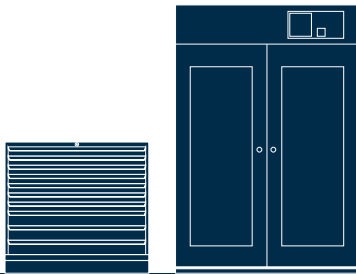


p. 150



p. 153





Bio - Optica

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.

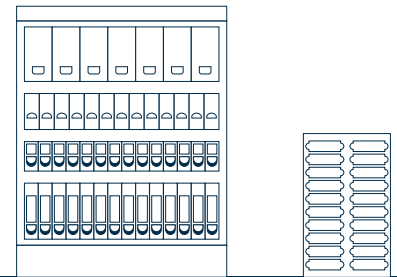
Its interior is equipped with plastic trays (code 03-C28N) for more effective archiving of both slides and embedded blocks.

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	14	1450 mm	338	03-V92B23B
	17920 C	(S6 and C8)			
	80640 S	16	1550 mm	400	03-V80B22B
	22400 C	(S6 and C10)			



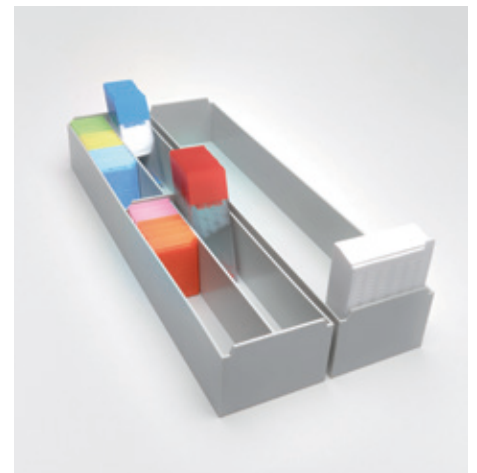
Storage



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	DRAWERS	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



Bio - Optica

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.

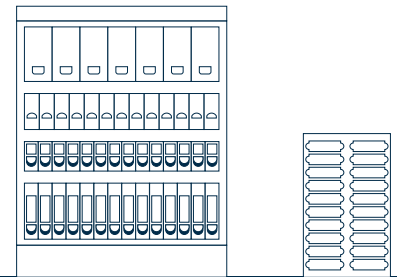
The spacer spring is recommended for keeping the slides in a vertical position with the correct spacing between them.



● Characteristics

Dimensions (W x D x H):	Istoglass - 490 x 490 x 140 mm 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 Istobloc - up to 860 cassettes or 540 rings
Recommended stacking of modules:	Up to 10 Istoglass 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



Storage

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

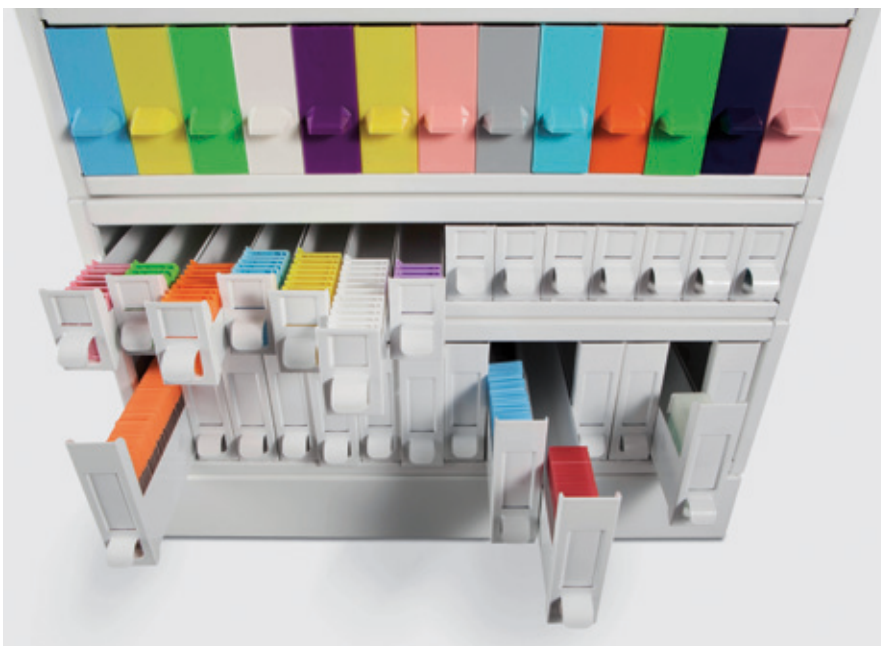
Modular system for filing slides and paraffin-embedded preparations.

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.

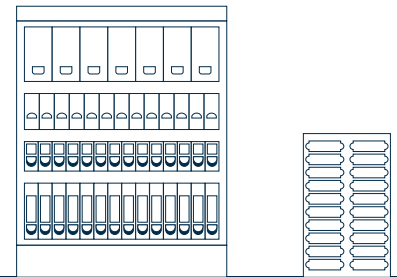
PRODUCT	CAPACITY PER MODULE	DIMENSIONS	PACK	CODE
Cartoglass	3000 slides	290x400x80 mm	10 pcs.	03-4015-BA
Cartoblock	320 cassettes 220 rings	290x400x45 mm	10 pcs.	03-4010-BC
Top		290x400x15 mm	10 pcs.	03-4020-B0



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



Storage

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).

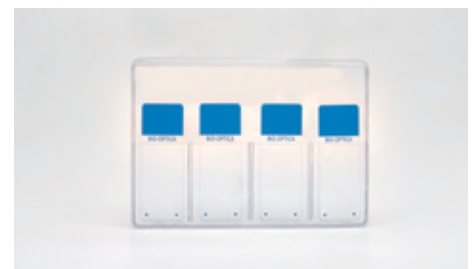
PRODUCT	PACK	DIMENSIONS	CODE
10 slides	40 pcs.	95x340 mm	44-13080
20 slides	20 pcs.	190x340 mm	44-13081
40 slides	10 pcs.	395x340 mm	44-13082
20 slides with lid	1 pc.	190x290 mm	09-57620



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

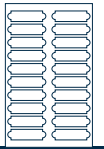
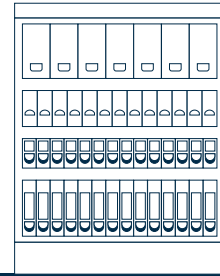
Extractor system

- 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



Storage



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

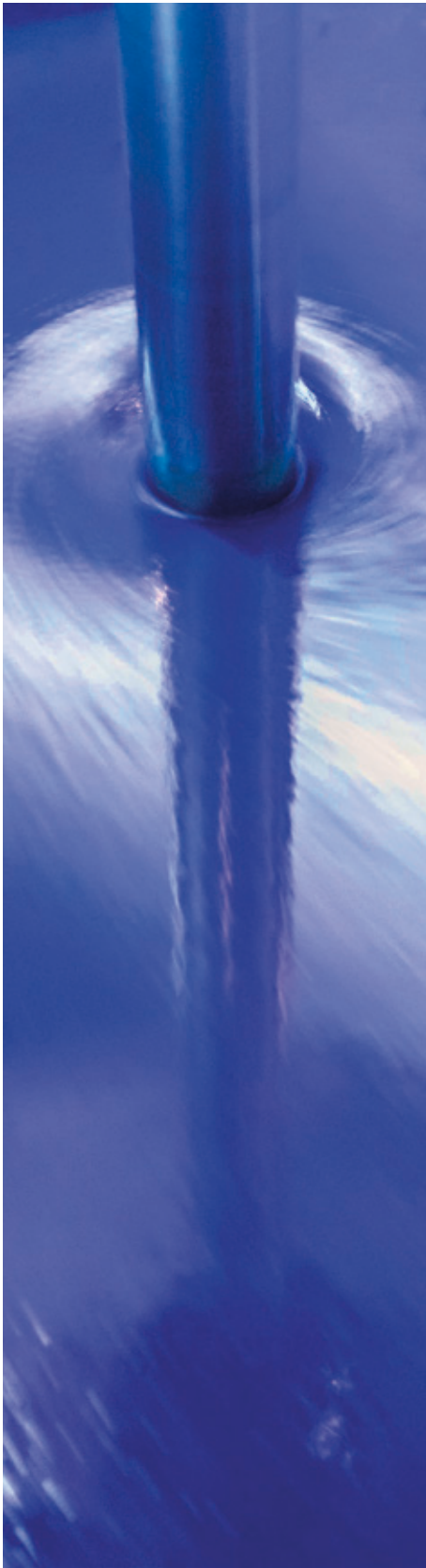
L

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

Sacomanno 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

