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Bio - Optica

# Bio - Optica

Improving Pathology

GENERAL CATALOGUE



# Bio - Optica

## Improving Pathology

### Mission

Proactively working with customers through continuous research aimed at innovation, assuring the compliance with strict quality standards.

### Vision

Guaranteeing excellence by offering advanced products that comply with the highest standards of anatomical pathology laboratories.

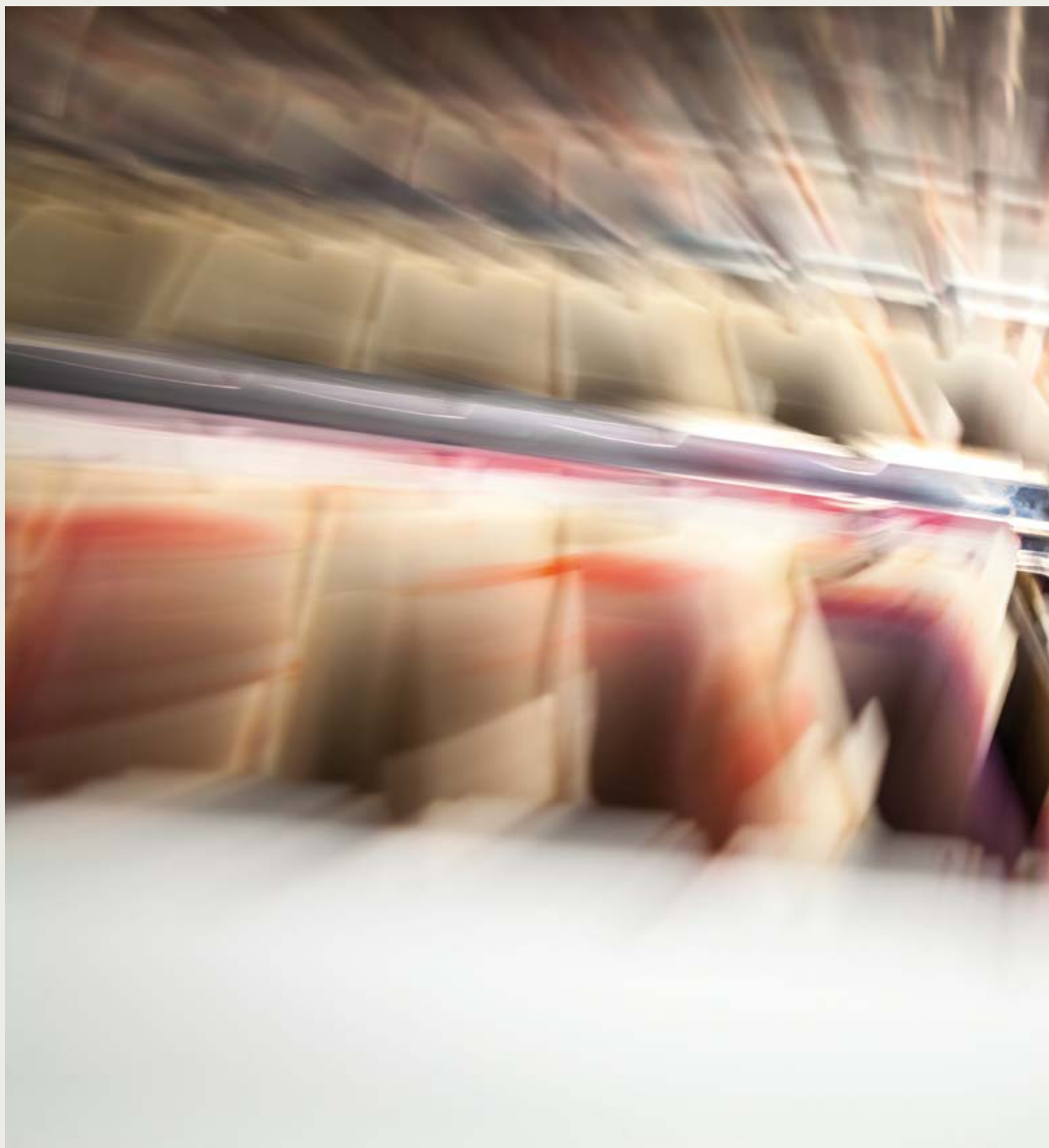
### Company

Bio-Optica was established in Milan in 1977. It is the first Italian company in the field of cyto/histopathology. Its headquarters are located in Milan, and its two production facilities are located in Peschiera Borromeo (instruments) and Bologna (reagents).

Bio-Optica has experienced a steady and regular growth over time. Nowadays it is a solid, industry-leading brand with 45 employees and 14 national agents, as well as a distribution network covering more than 60 countries.



# Bio - Optica





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## FIXATION

Bio-Optica produces a full range of fixatives suitable for any requirements and types of specimen.

### Formalin ready to use

PRODUCT	PACKAGING	CODE
● <b>Formalin 10% solution acetate buffered</b>	4x 2,5	05-01011Q
	240x2,5 l	05-01011Q-X60
	1x20 l	05-K01011
	24x20 l	05-K01011-X24
● <b>Formalin 10% solution neutral buffered</b>	4x2,5 l	05-01005Q
	240x2,5 l	05-01005Q-X60
	1x10 l	05-K01009
	40x10 l	05-K01009-X40
	1x20 l	05-K01004
	24x20 l	05-K01004-X24
	With tap	
● <b>Formalin 10% solution pH 7,2 - 7,4 buffered</b>	1x10 l	05-K01009R
	1x20 l	05-K01004R
	4x2,5 l	05-01012Q
	240x2,5 l	05-01012Q-X60
	1x10 l	05-K01022
● <b>Formalin zinc saline</b>	40x10 l	05-K01022-X40
	1x20 l	05-K01012
	24x20 l	05-K01012-X24
	4x2,5 l	05-01052Q
● <b>Formalin 10% saline</b>	240x2,5 l	05-01052Q-X60
	1x10 l	05-K01052
	4x2,5 l	05-01020Q
	240x2,5 l	05-01020Q-X60

### Formalin concentrate

PRODUCT	PACKAGING	CODE
● <b>Formaldehyde 30% w/v</b>	1x20 l	05-K01002
● <b>Formaldehyde 38-40% w/v</b>	4x2,5 l	05-01007Q
	240x2,5 l	05-01007Q-X60
	1x20 l	05-K01007
	24x20 l	05-K01007-X24
● <b>Formalin solution neutral buffered concentrate</b>	4x2,5 l	05-01006Q
	240x2,5 l	05-01006Q-X60
	1x10 l	05-K01004/CO
	40x10 l	05-K01004/COX40

## 10% Neutral buffered formalin in prefilled containers

Universal fixative in labelled/screen-printed sealed containers, in compliance with current regulations on the classification, labelling and packaging of dangerous substances. Prefilled containers are perfect for ensuring operator safety and proper histological specimen transportation.

PACKAGING	CAPACITY	CAP	CODE	CODE with TIMESTRIP
80x5 ml	10 ml	Screw cap	05-01P05	
640x5 ml	10 ml	Screw cap	05-01P05-X8	
54x9 ml	35 ml	Screw cap	05-01V15P	
540x9 ml	35 ml	Screw cap	05-01V15P-X10	
54x18 ml	55 ml	Screw cap	05-01V30P	05-01V30PT
540x18 ml	55 ml	Screw cap	05-01V30P-X10	05-01V30PT-X10
54x28 ml	55 ml	Screw cap	05-01V60P	05-01V60PT
540x28 ml	55 ml	Screw cap	05-01V60P-X10	05-01V60PT-X10
24x75 ml	125 ml	Screw cap	05-01V125P	05-01V125PT
192x75 ml	125 ml	Screw cap	05-01V125P-X8	05-01V125PT-X8
12x130 ml	250 ml	Pressure cap	05-01V250P	05-01V250PT
96x130 ml	250 ml	Pressure cap	05-01V250P-X8	05-01V250PT-X8
6x300 ml	500 ml	Pressure cap	05-01V500P	05-01V500PT
6x600 ml	1.000 ml	Pressure cap	05-01V1000P	05-01V1000PT
4x1.500 ml	3.000 ml	Pressure cap	05-01V3000P	05-01V3000PT
4x3.000 ml	5.000 ml	Pressure cap	05-01V5000P	05-01V5000PT

## Timestrip

Cutting-edge device for monitoring the fixing time. It is essential for preventing hypofixation and specimen necrosis, or hyperfixation and variability of results in immunohistochemistry and molecular biology.



### TIMESTRIP - Patent pending

#### 1\_Container with Timestrip

The Timestrip is fitted onto container cap

#### 2\_Insertion of the specimen

The specimen is put in the container prefilled with formalin

#### 3\_Timestrip activation

Press the Timestrip in to activate it

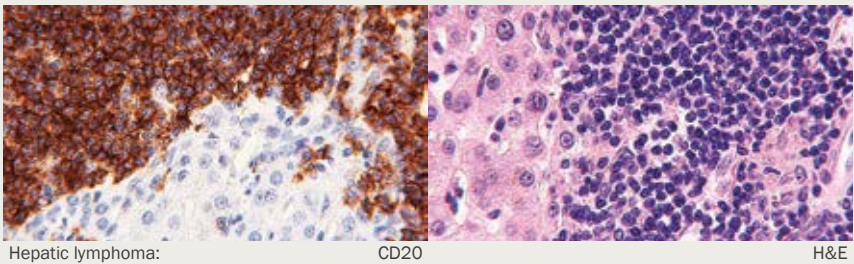
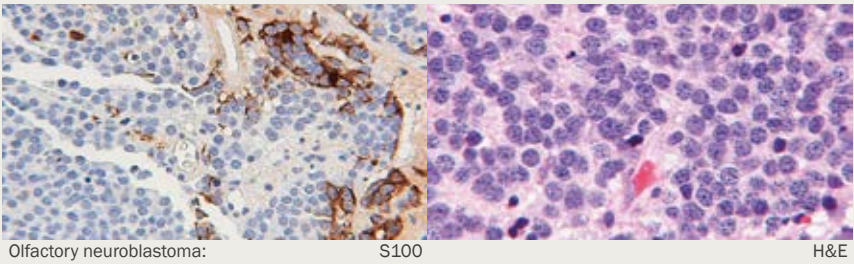
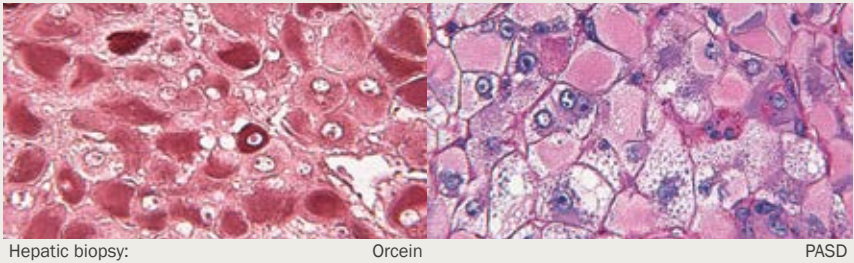
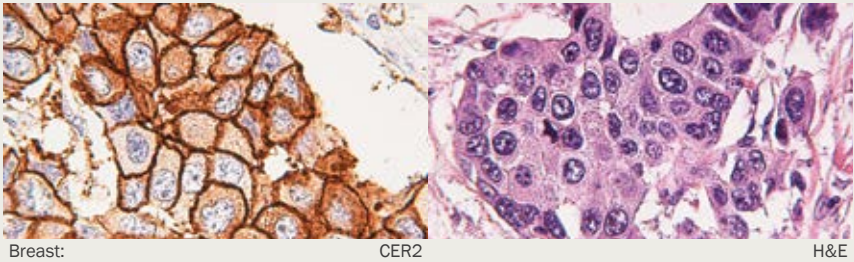
#### 4\_Timestrip coloured

Once the set time is over, the Timestrip is fully coloured  
(24h for biopsy, 48h for larger specimens)

**Cell-Block**

Formalin-free fixative for histological specimens. The active ingredient of Cell-Block is glyoxal, in a hydroalcoholic buffered solution. Glyoxal is a dialdehyde, whose structure is the same as that of two attached formaldehyde molecules: this means its mechanism of action is the same as formaldehyde. Immunoreactivity is not affected, and tissues are fixed preventing excessive hardening, thus simplifying their subsequent cutting. Cell-Block can fix small biopsies in 45-60 minutes. Slightly larger specimens are fixed in 1-2 hours and 2- 4 hours approximately are required for specimens with a thickness that exceeds 4 mm. Longer time is required for larger specimens.

PACKAGING	CODE
1x2,5 l	05-01065D
4x2,5 l	05-01065Q
54x9 ml	05-065V15P
54x18 ml	05-065V30P
54x25 ml	05-065V50P
24x75 ml	05-065V125P
6x300 ml	05-065V500P
4x1.800 ml	05-065V3000P
4x3.000 ml	05-065V5000P



## Other fixatives

PRODUCT AND DESCRIPTION	PACKAGING	CODE
● <b>B 5</b> For hematopoietic tissue	1x500 ml 1x10 l	05-M01023 05-K01023
● <b>Bouin</b> For bone marrow biopsies	1x500 ml 1x2,5 l 4x2,5 l	05-M01008 05-01008E 05-01008Q
● <b>Bouin Hollande sublimate</b> For hypophysis and endocrine pancreas	1x500 ml	05-M01026
● <b>Carnoy</b> Elective for glycogen	1x500 ml 1x2,5 l	05-M01013 05-01013E
● <b>Carson</b> For electron microscopy	1x500 ml 1x10 l	05-M01019 05-K01019
● <b>Dubosq Brezil</b> Excellent for needle biopsy	1x500 ml 1x2,5 l	05-M01024 05-01024E
● <b>Zenker fixative</b> For fine histology, cytology and mitochondria	54x18 ml 1x500 ml 1x2,5 l	05-01025V30P 05-M01025 05-01025E
● <b>F.A.A. fixative</b> Mixture for samples with high fat tissue content	1x2,5 l	05-01001E
● <b>Hollande</b> Excellent for trichrome stains	54x18 ml 4x2,5 l 1x2,5 l	05-01030V30P 05-01030Q 05-01030E
● <b>Immunofix</b> With paraformaldehyde 4% phosphate buffered, recommended for immunohistochemical techniques	1x10 l 1x20 l	05-K01015 05-K01016



## DECALCIFICATION

### Fixing decalcifying solutions

Fixing decalcifying solutions for osteomedullary biopsies and calcified tissues.

PRODUCT AND DESCRIPTION	PACKAGING	CODE
● <b>Mielodec</b> Decalcifying-fixative for bone marrow biopsies with two components	10x100 ml	04-230827
● <b>Gooding- Stewart</b> For calcified bone	1x2,5 l 4x2,5 l	05-03003E 05-03003Q

### Decalcifying solutions

Decalcifying solutions simplify bone specimen cutting operations.

PRODUCT AND DESCRIPTION	PACKAGING	CODE
● <b>Osteodec</b> Decalcifying solution for bone marrow biopsies	1x500 ml 1x2,5 l 4x2,5 l	05-M03005 05-03005E 05-03005Q
● <b>Biodec R</b> Fast decalcifying solution for mineralized tissues	1x500 ml 4x2,5 l	05-M03009 05-03009Q
● <b>Electrolytic decalcifying solution</b> Rapid decalcifier based on hydrochloric and formic acid	1x500 ml 4x2,5 l	05-M03004 05-03004Q



PROCESSING

Tissue processor VTP 300

VTP300 automatic processor is a vacuum tissue processor (floor model) designed for routine pathological histology operations. High quality manufacturing and extremely easy to use and to maintain. During the process, all stages and actions are shown on the display: current stage, current actions (loading, unloading, etc.), temperature of the processing chamber, temperature of paraffin hot chamber, pressure of the processing chamber, date and time of process completion and further information for supporting its use. It can process 300 specimens per cycle, guaranteeing high daily productivity and ensuring high-quality final products. This device is equipped with two stainless steel 150-cassette baskets for specimens, with dividers and cover.



● Features

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

Prefilled tanks

PRODUCT	PACKAGING	CODE
Formalin tank	6x2,7 l	65-30001S
Unyhol tank	6x2,7 l	65-30002S
Unyhol Plus tank	6x2,7 l	65-30003S
X-free tank	6x2,7 l	65-30016S
Bio Clear tank	6x2,7 l	65-30005S
Bio Plast paraffin tank	6x2,7 l	65-30006S
Distilled water tank	6x2,7 l	65-30007S
Dehyol 70 tank	6x2,7 l	65-30013S
Dehyol 95 tank	6x2,7 l	65-30008S
Dehyol absolute tank	6x2,7 l	65-30009S
Cell-Block tank	6x2,7 l	65-30010S
Charcoal filter tank	6x2 kg	65-30011

## Tissue processor FTP 300



The automatic processor FTP300 is a high-speed vacuum tissue processor (floor model).

It can process up to 300 biopsies in 45 minutes, without using microwaves or ultrasounds.

High speed processing is possible thanks to the cutting-edge EHE (Enhanced Heat Exchanger) that allows for reagent heating before loading in the processing chamber.

### PRODUCT

### CODE

- **Rapid automatic tissue processor for histology**
- **Automatic tissue processor for histology**

FTP300  
VTP300





## Solvents

### Bio Clear

Natural clearing reagent developed to replace xylene in slide processing, deparaffinization and dehydration.

PACKAGING	CODE
1x2,5 l	06-1782D
4x2,5 l	06-1782Q

### Xylene for histology

Xylene-based solvent for histology and cytology methods.

PACKAGING	CODE
4x2,5 l	06-1304Q

### Dehyol 70

70% alcohol mixture, perfect to replace 70% ethanol in all histology/cytology methods.

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

### Dehyol 95

95% alcohol mixture, perfect to replace 95% ethanol in all histology/cytology methods.

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



## Absolute Dehyol

Absolute alcohol mixture perfect to replace absolute ethanol in all histology/cytology methods.

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

## AlcoolPath 95

95% ethyl alcohol-based mixture containing less than 5% isopropyl alcohol.

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

## Absolute AlcoolPath

Absolute ethyl alcohol-based mixture containing less than 5% isopropyl alcohol.

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

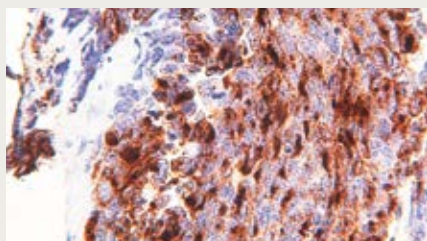
## Unyhol and Unyhol Plus

Unyhol and Unyhol Plus have been developed to clear the laboratory of any harmful and highly volatile reagents. They are to be used in sequence during processing and staining. Fewer steps and standardised methods for laboratory operating in compliance with the highest quality standards.

Unyhol prevents the excess specimen dehydration and can replace the whole series of alcohol concentrations.

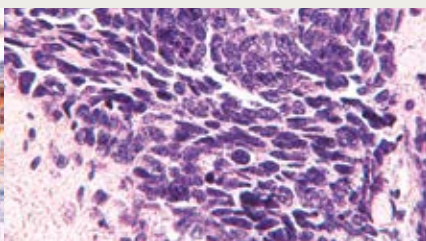
Unyhol Plus is based on natural terpenes. It is used for the clearing process and complements Unyhol action.

PRODUCT	PACKAGING	CODE
● <b>Unyhol</b>	1x5 l	06-10071F
	4x2,5 l	06-10071Q
● <b>Unyhol Plus</b>	1x5 l	06-9816F
	4x2,5 l	06-9816Q

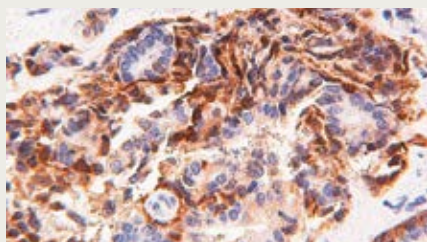


Microcytoma metastasis:

CHROMOGRANIN

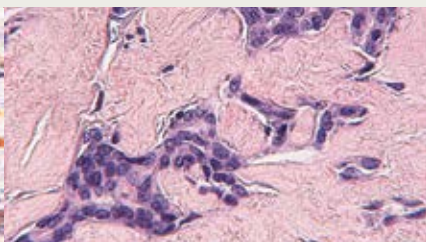


H&E



Breast:

C CALPONIN



H&E



### Bio-Plast Paraffins

Exclusive, high quality paraffin-plastic polymer mixtures. Excellent penetration into any tissue types and proper elasticity during cutting, for serial sections even with fibrous tissue.

DMSO (dimethyl sulfoxide) free.

DESCRIPTION	MELTING POINT	PACKAGING	CODE
Standard for routine	56÷58 °C	6x2 kg	08-7910
Special for processing	52÷54 °C	6x2 kg	08-7915
Plus, high quality	56÷58 °C	6x2 kg	08-7920
Standard for routine, blue colour	54÷57 °C	6x2 kg	08-7910B
Standard for routine	56÷58 °C	1x20 kg	08-7910/20
Plus, high quality	56÷58 °C	12x1 kg	08-7920K



### Material for biopsy

#### Filters for biopsy

Small pads made of a special solvent- and paraffin-permeable material; they allow for the processing of extremely small specimens preventing any loss of material.

COLOUR	PACKAGING	CODE
Blue	500 pcs	07-7290
Blue	5.000 pcs	07-7290/5
Blue	15.000 pcs	07-7290/15
Black	5.000 pcs	07-7291



#### Biopsy bags


Fine mesh nylon biopsy bags, resistant to solvent and paraffin, perfect for processing small sized histological specimens.

SIZE	PACKAGING	CODE
30x45 mm	1.000 pcs	07-00005
45x60 mm	1.000 pcs	07-00003
75x73 mm	1.000 pcs	07-00004


Mucosectomia Kit

Advanced kit for proper mucosectomy positioning, ensuring they will provide enough histopathological tissue for allowing correct diagnosis.

PACKAGING	SIZE	CODE
5 mucosectomia kit small	70X50 mm	08-8800
5 mucosectomia kit big	180x180 mm	08-8900



**1\_Mucosectomy positioning**  
As soon as it is drawn, the specimen is spread on the proper surface.




**2\_Specimen covering with protection filter**  
Filter protects the drawn specimen and keeps it in place

Endokit


Complete patented system for proper endoscopic biopsy orientation. It includes:

- cut strips in cellulose nitrate with sloped end
- 10% neutral buffered formalin prefilled test tubes for immediate biopsy fixation

PACKAGING	CODE
40 Endokit strips and 80 prefilled vials	08-8700N
40 Endokit	08-8710N



**1\_Cut stripes and prefilled test tubes**  
Ready-to-use device for optimising operator time



**2\_Biopsy positioning**  
Oriented biopsies simplify the diagnosis by the pathologist

## Cassette printer

Histology cassette printer Primera, with heat transfer printing technology. It allows both black&white and colour HD (high definition) printing of text, images, logotypes and Data Matrix and 2D bar codes. It can be interfaced with the laboratory reporting system.

### Features

Dimension:	304,8 x 657,9 x 490,0 mm (w x d x h)
Weight:	38,56 kg
Cassettes capacity:	4 loaders of 40 cassettes each
Output capacity:	7 cassettes / 17 cassettes with extension
Printing system:	thermal transfer
Print speed:	up to 11 cassettes per minute (monochrome) up to 8 cassettes per minute (full colour) up to 5 cassettes per minute (intermediate colour to tone)
Print colours:	8 colours; other colours are available through colour combinations
Compatibility cassettes:	standard cassettes with printing surface smooth inclined either 35 ° or 45 °, with lid or without lid, without the need for adjustment.



PRODUCT	CODE
Cassette printer with automatic loading	078404
Cassette printer with manual loading	078406
Cassette loader - additional module for 078406	078408

## Bio Cassettes with lid, stacked and with tape (for Primera)

COLOUR	PACKAGING	BIOPSY CASSETTES CODE	BIO CASSETTES CODE
White	50 hoppers with 40 pcs each	07-9800	07-9700
Orange	50 hoppers with 40 pcs each	07-9810	07-9710
Blue	50 hoppers with 40 pcs each	07-9820	07-9720
Yellow	50 hoppers with 40 pcs each	07-9830	07-9730
Lilac	50 hoppers with 40 pcs each	07-9840	07-9740
Pink	50 hoppers with 40 pcs each	07-9850	07-9750
Green	50 hoppers with 40 pcs each	07-9860	07-9760
Grey	50 hoppers with 40 pcs each	07-9880	07-9780





## Bio cassettes

Acetal resin embedding cassettes, for small biopsies and specimens.

### ● Bio Cassettes (with lid)

COLOUR	PACKAGING	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
Grey	3x500 pcs	07-7180

\* Available also in economic packaging with 4.500 pcs



### ● Bio Cassettes II (detachable lid)

COLOUR	PACKAGING COVERS + CASSETTES	CODE
White	1x2.000 pcs + 2x1.000 pcs	07-8100
Orange	1x2.000 pcs + 2x1.000 pcs	07-8110
Blue	1x2.000 pcs + 2x1.000 pcs	07-8120
Yellow	1x2.000 pcs + 2x1.000 pcs	07-8130
Lilac	1x2.000 pcs + 2x1.000 pcs	07-8140
Pink	1x2.000 pcs + 2x1.000 pcs	07-8150
Green	1x2.000 pcs + 2x1.000 pcs	07-8160



### ● Mega Cassettes (double height, with lid)

COLOUR	PACKAGING	CODE
White	750 pcs	07-7300

### ● Super Mega Cassettes (for macrosections, detachable lid)

Designed with larger handles for increasing the contact surface with paraffin and preventing specimen detachment during microtome cutting.

COLOUR	PACKAGING	SIZE	CODE
White	200 pcs	70x50x15 mm	07-7000







## Biopsy Cassettes

Acetal resin embedding cassettes, for small biopsies and specimens.

### ● Biopsy Cassettes (with lid)

COLOUR	PACKAGING	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
Grey	3x500 pcs	07-7280



### ● Biopsy Cassettes II (with detachable lid)

COLOUR	PACKAGING COVERS + CASSETTES	CODE
White	1x2.000 pcs + 2x1.000 pcs	07-8200
Orange	1x2.000 pcs + 2x1.000 pcs	07-8210
Blue	1x2.000 pcs + 2x1.000 pcs	07-8220
Yellow	1x2.000 pcs + 2x1.000 pcs	07-8230
Lilac	1x2.000 pcs + 2x1.000 pcs	07-8250
Pink	1x2.000 pcs + 2x1.000 pcs	07-8260
Green	1x2.000 pcs + 2x1.000 pcs	07-8280

## Embedding Cassettes

Acetal resin cassettes, without lid and with round holes.



COLOUR	PACKAGING	CODE
White	3x1.000 pcs	07-7350

Metal lids for embedding cassettes.

PACKAGING	CODE
10 pcs	07-086-74195

## Embedding Rings

Acetal resin embedding rings.



COLOUR	PACKAGING	CODE
White	1.500 pcs	07-7600
Orange	1.500 pcs	07-7610
Blue	1.500 pcs	07-7620
Yellow	1.500 pcs	07-7630
Pink	1.500 pcs	07-7650
Green	1.500 pcs	07-7660

Printer cassettes

● **Stacked cassettes tube, with detachable lid, for Thermo Scientific printer**

COLOUR	PACKAGING	BIOPSY CASSETTES CODE	BIO CASSETTES CODE
White	20 tubes with 75 pcs each	07-9600	07-9500
Orange	20 tubes with 75 pcs each	07-9610	07-9510
Blue	20 tubes with 75 pcs each	07-9620	07-9520
Yellow	20 tubes with 75 pcs each	07-9630	07-9530
Lilac	20 tubes with 75 pcs each	07-9640	07-9540
Pink	20 tubes with 75 pcs each	07-9650	07-9550
Green	20 tubes with 75 pcs each	07-9660	07-9560
Grey	20 tubes with 75 pcs each	07-9680	07-9580

● **Stacked cassettes with tape and hinged lid, for Leica and Sakura printers**

COLOUR	PACKAGING	BIOPSY CASSETTES CODE	BIO CASSETTES CODE
White	50 hoppers with 40 pcs each	07-9400	07-9300
Orange	50 hoppers with 40 pcs each	07-9410	07-9310
Blue	50 hoppers with 40 pcs each	07-9420	07-9320
Yellow	50 hoppers with 40 pcs each	07-9430	07-9330
Lilac	50 hoppers with 40 pcs each	07-9440	07-9340
Pink	50 hoppers with 40 pcs each	07-9450	07-9350
Green	50 hoppers with 40 pcs each	07-9460	07-9360
Grey	50 hoppers with 40 pcs each	07-9480	07-9380

● **Stacked cassettes with tape and detachable lid, for TBS and RA Lamb printers**

COLOUR	PACKAGING	BIOPSY CASSETTES CODE	BIO CASSETTES CODE
White	50 hoppers with 40 pcs each	07-9200	07-9100
Orange	50 hoppers with 40 pcs each	07-9210	07-9110
Blue	50 hoppers with 40 pcs each	07-9220	07-9120
Yellow	50 hoppers with 40 pcs each	07-9230	07-9130
Lilac	50 hoppers with 40 pcs each	07-9240	07-9140
Pink	50 hoppers with 40 pcs each	07-9250	07-9150
Green	50 hoppers with 40 pcs each	07-9260	07-9160
Grey	50 hoppers with 40 pcs each	07-9280	07-9180



## EMBEDDING

### Embedding station

Modular system for histological specimen paraffin embedding  
It consists of three separate units:

- Paraffin dispenser
- Thermal unit
- Cooling plate

Operating parameters, as well as module switching on/off, can be programmed separately.

The paraffin dispenser features:

- Proximity sensor for paraffin supply, with possible flow adjustment
- 6 x heated forceps seats
- Heated paraffin collection tray

The accurate temperature control for the paraffin bath and the processing plate, and the separated supply nozzle heating guarantee constant operating temperature.  
The upper part of the thermal unit is compatible with all marketed processor baskets.  
Two versions available.





**Embedding station CD1000**

The CD1000 model is equipped with cooling plate PF100.  
It can contain up to 70 standard embedding cassettes.  
Plastic anti-drip edges.

● **Features**

Dimension:	1200 x 560 x 290 mm (w x d x h)
Weight:	68 Kg
Working hot plate:	aluminium surface 350 x229 (w x d)
Paraffin basin:	in stainless steel, about 4 l volume
Upper chamber for processing rack with removable basin:	in stainless steel, about 5,5 l volume, surface 315 x 210 x 104 mm (w x d x h)
Lower basin:	in stainless steel, capacity 3 l
Cooling surface:	in stainless steel, surface 420 x 245 mm (w x d)
Working temperature:	hot elements +20 °C - +70 °C cooling plate -20 °C - +20 °C

PRODUCT	CODE
Complete embedding station	40-200-000
Paraffin dispenser	40-200-100
Cooling plate	40-300-200
Thermal unit	40-200-200



## Embedding station CD2000

The CD2000 model features the new cooling plate PF200. It can contain up to 250 standard embedding cassettes. It features Plexiglas lid and 48 mm-high edge, providing a real cooling chamber, rather than a simple cooling base, with the benefits below:

- High cooling power
- No condensation on plate surface (condensation water limits to 0°C the effective surface temperature)
- No condensation dripping on the laboratory bench



### Features

Dimension:	1200 x 560 x 290 mm (w x d x h)
Weight:	68 kg
Working hot plate:	aluminium surface 350 x 229 (w x d)
Paraffin basin:	in stainless steel, about 4 l volume
Upper chamber for processing rack with removable basin:	in stainless steel, about 5,5 l volume, surface 315 x 210 x 104 mm (w x d x h)
Lower basin:	in stainless steel, capacity 3 l
Cooling surface:	in stainless steel, surface 422 x 245 mm (w x d)
Working temperature:	hot elements +20°C - +70°C cooling plate -20°C - +20°C

PRODUCT	CODE
Complete embedding station	40-200-001
Paraffin dispenser	40-200-100
Cooling plate	40-300-201
Thermal unit	40-200-200



## Heated forceps

Forceps with electronic temperature control for specimen embedding. This device is preset for operation with two simultaneously heated forceps.

PRODUCT	CODE
Heated forceps (with 1 mm tip)	40-200-050
Spare forceps red with 1 mm tip	40-200-053
Spare forceps yellow with 2 mm tip	40-300-054
Spare forceps blue with 4 mm tip	40-200-055



## Paraffin dispenser

Paraffin dispenser with 8-litre stainless steel tank with heated base and digital electronic thermostat for programming device switch on/off.

### Features

Dimension:	450 x 370 x 540 (w x d x h)
Weight:	16 kg
Temperature:	from +20 °C to +70 °C

PRODUCT	CODE
Paraffin dispenser	40-200-101



## Steel embedding moulds

Stainless steel moulds for paraffin embedding of histological specimens.

### Bio Mold

SIZE	PACKAGING	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

SIZE	PACKAGING	CODE
33 x 24 x 12 mm	6 pcs	07-MBM6

### Super Mega Mold

SIZE	PACKAGING	CODE
65 x 45 x 15 mm	10 pcs	07-7010



## Dispomold in PVC

Disposable PVC embedding moulds.

SIZE	PACKAGING	CODE
7 x 7 x 5 mm	1.500 pcs	07-MP7070
15 x 15 x 5 mm	1.500 pcs	07-MP1515
24 x 24 x 5 mm	1.500 pcs	07-MP2424
30 x 24 x 5 mm	1.500 pcs	07-MP3024
37 x 24 x 5 mm	1.500 pcs	07-MP3724

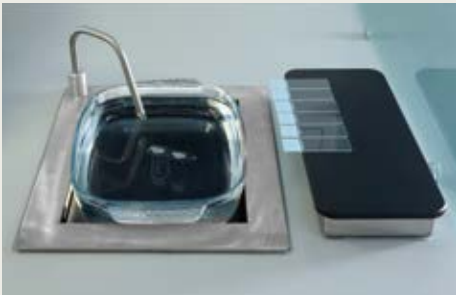




# MICROTOMY

## Microtome Bench

Complete cutting unit complete with all required equipment for microtome sectioning of paraffin embedded specimens. The painted metal frame houses: cooling chamber, water bath and hot plate.



### Features

Dimension:	1500 x 800 x 1775 mm (w x d x h)
Weight:	120 Kg
<b>Cooling plate</b>	
Working surface:	310 x 300 mm
Capacity:	170 cassettes in vertical position
Minimal temperature:	-20 °C
<b>Water bath</b>	
Adjustable temperature:	from +20 °C to +70 °C
Lighting:	with neon lamp
<b>Hot plate</b>	
Capacity:	up to 24 slides
Adjustable temperature:	from +20 °C to +70 °C
PRODUCT	CODE
Microtome Bench TMB	40-300-400

## Second operator bench TSO

Second microtome cutting bench, complete with water bath and hot plate. To complement the Microtome Bench, providing two complete workstations.

### Features

Dimension:	1200 x 800 x 1775 mm (w x d x h)
Weight:	100 Kg
PRODUCT	CODE
Bench for second operator	40-300-401

Freezing plate PF200

Cooling plate featuring an operating chamber with 48 mm-high edge, designed for providing a real cooling chamber, rather than a simple cooling base. It features chamber lid, may be opened from both sides, and a thermostat for operating temperature adjustment. This solution provides the benefits below:

- High cooling power
- No condensation on the base plate or dripping on the laboratory bench
- Possibility to cool several paraffin embedded blocks (250 approx.)

Features

Dimension:	500 x 550 x 290 mm (w x d x h)
Weight:	30 Kg
Capacity:	250 cassettes
Working temperature:	from +20 °C to -20 °C
Cooling system:	without CFC
PRODUCT	CODE
Cooling plate	40-300-201



Cooling plate PF100

Cooling plate for paraffin embedded histological specimens. Featuring anti-drip edges. It can contain up to 70 blocks.

Features

Dimension:	500 x 550 x 290 mm (w x d x h)
Weight:	30 Kg
Capacity:	70 cassettes
Working temperature:	from +20 °C to -20 °C
Cooling system:	without CFC
PRODUCT	CODE
Cooling plate	40-300-200





### Water bath WB1770

Equipped with removable Pyrex tank (1,2 litre capacity) for easy water filling/draining and for guaranteeing improved safety and simple use. Temperature is controlled by a probe in direct contact with water, featuring a safety device that stops power supply when the tank is removed. The upper base plate can be heated and can hold up to 24 slides.

#### ● Features

Dimension:	350 x 365 x 155 mm (w x d x h)
Slide-dryer plate dimensions:	350 x 100 mm (w x d)
Weight:	8 Kg
Thermostat:	electronic thermostat with digital display
Bath temperature:	from +20 °C to +70 °C
Temperature control:	through NTC10K probe immersed directly in water
Basin lighting:	neon lamp 6 Watt
Working temperature adjustment (slide - dryer plate):	from +20 °C to +50 °C

PRODUCT	CODE
Water bath WB1771	40-300-000
Pyrex basin	40-300-050

### Round water bath WB100

Easy-to-use and reliable bath with temperature control, equipped with: analogue thermostat, heating light indicator and large heated surface for slides. Size: 330x90 mm (ø x h) and internal tank size 200 mm (ø)

PRODUCT	TEMPERATURE	CODE
Water bath WB100	from +30 °C to +80 °C	40-300-002



## Hot plates

Hot plate for general laboratory purposes.  
Featuring anodized aluminium top and digital electronic thermostat.  
Temperature can be adjusted up to 90 °C.

PRODUCT	DIMENSION	WEIGHT	CODE
PC400 hot plate	150 x 190 x 100 mm	1,5 Kg	40-300-300
PC800 hot plate	150 x 380 x 100 mm	2 Kg	40-300-301
PC810 hot plate	300 x 400 x 100 mm	7 Kg	40-300-302



## Forced convection oven SVF100

Oven with temperature control.  
For fast slide drying and laboratory material rapid heating.  
The digital display allows adjustment working of parameters and programming oven switching on/off.  
The chamber is equipped with two removable and height-adjustable perforated shelves, and with a removable collection tray.

### Features

Dimension:	490 x 340 x 610 mm (w x d x h)
Dimension internal chamber:	410 x 300 x 430 mm (w x d x h)
Weight:	32 Kg
Power:	2.000 Watt
Thermostat:	electronic thermostat with microprocessor with display in two languages
Temperature:	from +20 °C to +70 °C
Programming:	on/off, weekly

PRODUCT	CODE
SVF100 oven	40-300-101



## Histology oven SVN1790

Laboratory oven.  
For slide and glassware drying, or for laboratory material rapid heating.  
It includes two removable perforated shelves and one bottom tray.

### Features

Dimension:	480 x 380 x 315 mm (w x d x h)
Dimension chamber:	300 x 300 x 215 mm (w x d x h)
Temperature:	from +20 °C to +100 °C with digital electronic thermostat

PRODUCT	CODE
SVN1790 oven	40-300-100





## Steel blades

**C PROFILE** - For cryostat.

LENGHT	MATERIAL	CODE
12 cm	Steel	08-12/C
16 cm	Steel	08-16/C
18 cm	Steel	08-18/C
22 cm	Steel	08-22/C

**D PROFILE** - For microtome. Special blades for cutting embedded resin specimens or non-decalcified paraffin embedded biopsies.

LENGHT	MATERIAL	CODE
12 cm	Steel	08-12/D
16 cm	Steel	08-16/D
18 cm	Steel	08-18/D
22 cm	Steel	08-22/D



## Brushes

For cryo-microtomy and microtomy.

PRODUCT	PACKAGING	CODE
Small for biopses	4 pcs	08-0822
Small for microtome sectioning	4 pcs	08-0823
Medium for microtome sectioning	4 pcs	08-0824
Medium for cleaning microtome blade	2 pcs	08-0825
Large for microtome cleaning	2 pcs	08-0826
Large for cryostat cleaning	2 pcs	08-0827
Set with 5 brushes for cryostat (includes codes 0822-0823-0824-0825-0827)	1 pcs	08-0828
Set with 5 brushes for microtome (includes codes 0822-0823-0824-0825-0826)	1 pcs	08-0829



## BioParaFree

Completely odourless dewaxing spray solution, for cleaning microtomes, work benches and stations from paraffin residues.

Bottle with sprayer.

PACKAGING	CODE
1x100 ml	08-1750
4x100 ml	08-1750-X4

## Killik

Embedding medium for cryostat sectioning.

COLOUR	PACKAGING	CODE
Neutral	4x100 ml	05-9801
Pink	4x100 ml	05-9801R
Blue	4x100 ml	05-9801B
Green	4x100 ml	05-9801V



## Crio Clor 0,3

Chlorexydine-based (0.3%) spray disinfectant for cryostat, effective against bacteria, fungi and other viruses (hepatitis B, poliomyelitis, herpes simplex).

PACKAGING	CODE
1x125 ml	05-9802



## Cryo spray

Freezing spray for histology purposes: quickly freezes the tissue to be sectioned by cryostat, as well as cooling down paraffin embedded specimens before microtome cutting.

PACKAGING	CODE
12x150 ml	08-SPRAY



## Microtome oil

Microtome lubricant.

PACKAGING	CODE
1x100 ml	08-1721
2x100 ml	08-1720







## STAINING

### Automatic stainer AUS140



Automated stainer for histology, with XY translator, suitable for all “routine and special” histological staining processes, and able to carry out simultaneously several staining processes, limited only by the number of tanks available (10-12 processes approximately). Continuous loading of baskets containing 30 slides. The performance depends on the staining protocol and, however, exceeds 2.000 slides/day.

#### ● Features

Dimension:	1.150 x 770 x 900 mm (w x d x h)
Weight:	150 kg
Working stations:	40 stations total
Bath capacity:	485 ml
Reagents stations:	28 plastic baths for reagents in two series, while the frontal series has 5 washing baths for tap water with pressure regulator and flow timing and a rack with 2 for loading and 3 for unloading, accessible while lid closed, and 2 with forced ventilation of hot air at 60 °C, electronic control
Basket for slides:	30 slides
Number of programs:	over 50 programs, with more than 100 parameters for program
Programming immersion time:	from 1" to 99' 59", in second intervals
Interface:	touch screen monitor, with a large colour display that can show graphically the progress of ongoing programs, the scheme of the process baths and all the relevant data of the stains

PRODUCT	CODE
● <b>Automatic stainer AUS 140</b>	40-400-200
● <b>Automatic stainer AUS140 with oven</b>	40-400-250
● <b>Automatic stainer AUS140 with distilled water baths</b>	40-400-300

## Accessories

PRODUCT	CODE
Active charcoal filter	40-400-253
Hanger for Sakura rack	40-400-256
Hanger for Shandon rack	40-400-257
Hanger Leica rack	40-400-258
Hanger for Medite rack	40-400-259
Collector for lab aspiration	40-400-260
Basket for special stain	40-400-261
Reduction bath for special stain	40-400-262



### **\_Optional reagent saving system for special staining processes**

Special staining processes are handled by special equipment for reducing reagent consumption, such equipment allows to be loaded reagent tanks with a reduced capacity of 150 ml, and 8-slide baskets.

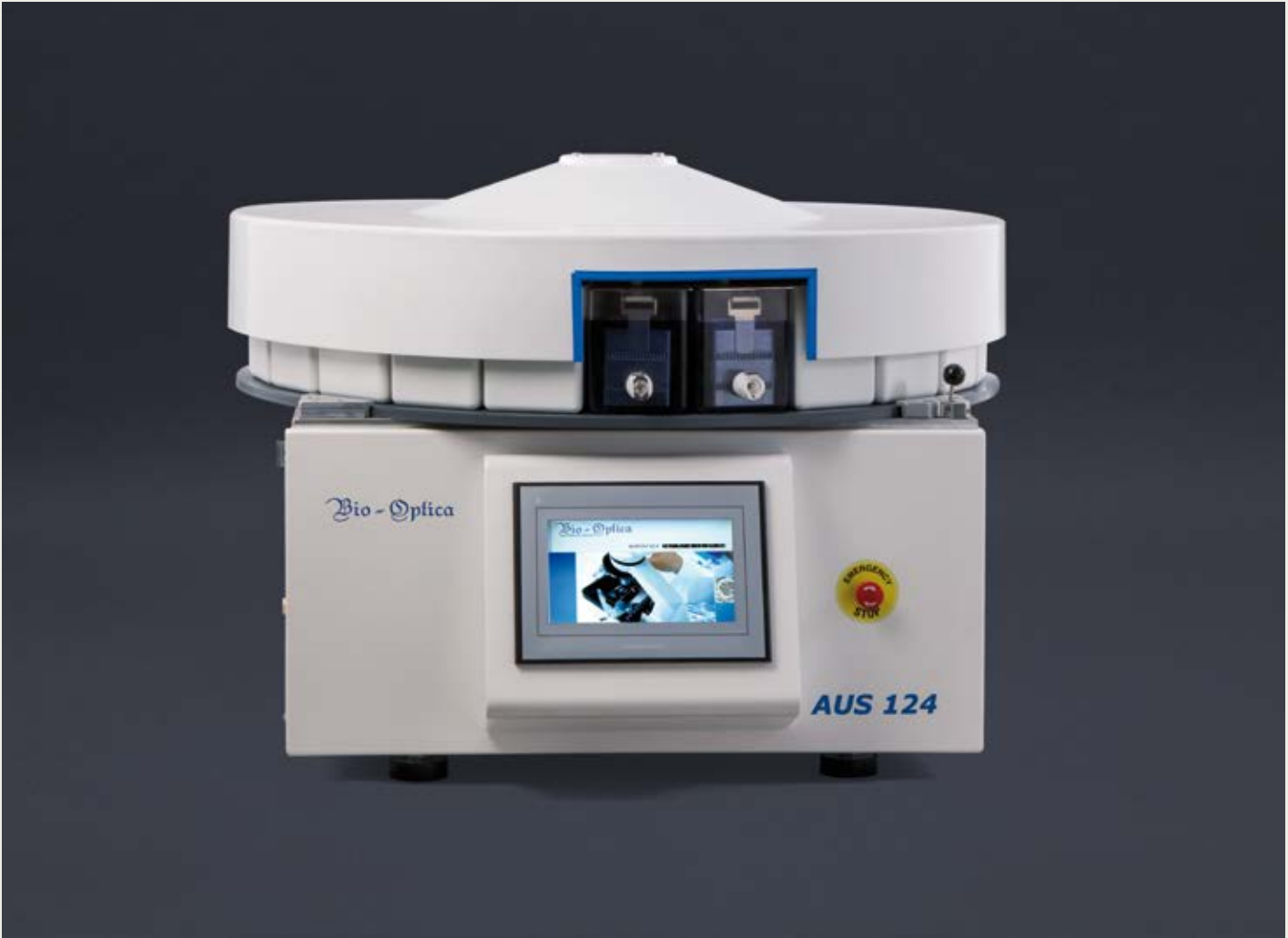
### **\_Standard independent filtering system, with easy-to-remove filter**

Integrated vapour neutralisation and active carbon filtering system.

### **\_Possibility to connect to laboratory extraction system**

Preset for connecting the intake manifold on device upper part, enabling the connection to hospital central system for vapour discharge to the outside.





**Linear stainer AUS124**

Automated slide stainer with carousel. Extremely easy to use, it has an integrated fume extraction and filtration system. It includes user-friendly programming system that allows to set the operating parameters alternating different staining processes.



● <b>Features</b>	
Dimension:	600 x 700 x 600 mm (w x d x h)
Weight:	75 Kg
Working stations:	24 including 2 washing stations
Bath capacity:	750 ml
Basket for slides:	65 slides
Number of programs:	50 different staining protocols, with a maximum number of 30 passages each
Programming immersion time:	time of immersion and dripping from 00':01'' up to 50':59''
Interface:	colour touch screen control panel for the programs and visualization of the parameters and the control of the process of stains
Security:	external cover for containing fumes
Other features:	2 lithium buffer batteries for emergency power supply in case of black-out

PRODUCT	CODE
Automatic stainer AUS124	40-400-000

Automated stainer for microbiology and haematology AUS107



Automated stainer for microbiology, haematology and anatomical pathology with seven work units (five for reagents, one for slide washing and one for slide drying). A version with six work units for reagents and one washing unit for hematoxylin and eosin stains is available for extemporaneous examinations. It features a built-in active carbon filtration system and a dripping system that protect the basket during the transfer from one tank to another, keeping reagents clean for longer time. The AUS107 stainer has been designed for ensuring operator safety. All units, indeed, are closed by a cover, which sharply reduces emissions to the work environment. Moreover, units are automatically emptied conveying all reagents in a discharge tank, without the operator having to come into contact with dangerous substances.

● Features

Dimension:	500 x 450 x 450 mm (w x d x h)
Weight:	12 Kg
Programming:	through memory card
Immersion time:	from 1" to 99'59"
Interface:	LCD display showing the parameters of color and set-up tool
Bath capacity:	300 ml
Basket capacity:	24 slides

PRODUCT	CODE
Automatic stainer AUS107	40-400-100

Specific staining kits

PRODUCT	CODE
Gram for microbiology	04-100803
Ziehl-Neelsen for microbiology	04-111803
MGG Quick Stain for haematology	04-090805
Fast H&E for frozen section	04-065010



## Bench Tech series 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.



### Features

Aspiration:	1 three-phase electrofan adjustable
Lighting:	2 led tubes, 10 Watt/each

PRODUCT	DIMENSION	CODE
Bench Lab Tech 90	900 x 750 x 1340 mm	50-090-201
Bench Lab Tech 130	1300 x 750 x 1340 mm	50-130-201
Bench Lab Tech 150	1500 x 750 x 1340 mm	50-150-201

### Filters

The filter changing is easy thanks to the removable frontal panel. This system is a feature of all Bio-Optica hoods (LabTech series, Trimming Tech series and Bench Tech series).

PRODUCT	CODE
HEPA filter	50-F005
Filter for alcohol and xylene	50-F004
Alumina filter for formalin	50-F003





Manual stainer

Basic easy-to-use PEPT (polyethylene terephthalate) system for cytology and histology staining processes.

The 10-10 kit includes a steel base, twelve tanks with cover (300 ml capacity) and a basket for twenty-five slides.

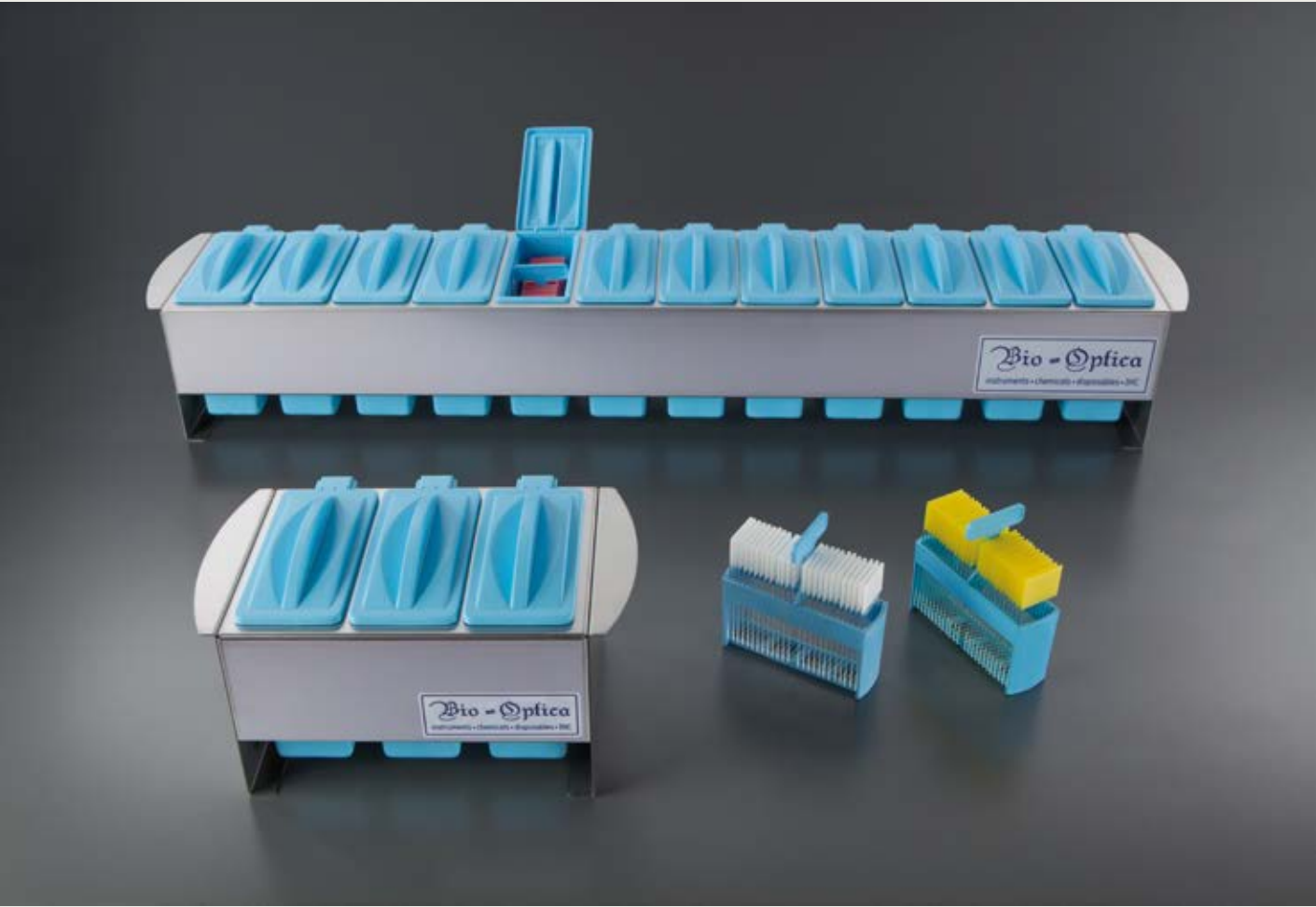
The haematology kit includes one base three tanks with cover and one basket.

Basket and tanks are resistant to solvents and to high temperature (up to 170 °C), and can be used in microwave ovens.

PRODUCT	N. OF DISHES	CODE
Haematology set	3	10-20
Staining set	12	10-10

ACCESSORIES AND SPARE PARTS

PRODUCT	PACKAGING	CODE
Dish with attached cover	12 pcs	10-30
Dish with separated cover (for old model)	12 pcs	10-33
Basket for 25 slides with plastic handle	6 pcs	10-42





### Plastic staining kit

Dish (dimension: 81x101x70 mm) featuring 2 covers: one for closing the dish completely, and the other one with a slot for basket insertion during staining. Resistant to high temperature (up to 120 °C).

PRODUCT	PACKAGING	CODE
TPX staining dish	4 pcs	44-13091
Basket for 20 slides	2 pcs	44-13092



### Glass staining kit

PRODUCT	CODE
Complete set	10-2000
Dish with cover (size 81 x 101 x 70 mm) and basket	10-1820
Basket for 20 slides	10-1910
Spare tweezer for code 10-1910	10-2010

### Staining dishes

PRODUCT	PACKAGING	CODE
Glass Hellendhal dish	1 pcs	10-1410
TPX Hellendhal dish	4 pcs	44-13101
Glass Coplin dish	1 pcs	10-1710
Glass Schefferdecker dish	1 pcs	10-1610
TPX Schefferdecker dish	1 pcs	44-13111





### Slide master for special and immunohistochemistry staining

Base for horizontal staining of 20 slides, perfect for special staining and immunohistochemistry processes. It is equipped with two removable and tiltable slide-holding racks, moist chamber and cover.

The adjustable feet and check bead ensure perfect level.

SIZE	CODE
32 x 26 x 11 cm (w x d x h)	15-MEQ001

### Timers

Minute counter for laboratories, resistant to solvents.

MODEL	PACKAGING	CODE
Clip	1 pcs	44-10851
One hand	1 pcs	44-10852
Electronic	1 pcs	44-10853
Digital electronic	1 pcs	44-06057A000



### Adapter for macrosection slides

To be used with baskets of automated and manual stainers for staining macrosection slides together with standard slides.

PRODUCT	PACKAGING	CODE
Adapter for large slides	2 pcs	20-E103/SL/R30A





## Pap Pen

It spreads a water repellent waxy film on the slide, to limit the staining area.

PRODUCT	DIAMETER TIP	PACKAGING	CODE
Liquid Blocker	5 mm	1 pcs	11-100
Liquid Blocker Mini	2 mm	1 pcs	11-100M



## Forceps

Microscopy forceps made of polyester resin and glass fibre, resistant to acids, bases and heat (up to 200 °C).

PRODUCT	PACKAGING	CODE
Pointed, 12 cm	1 pcs	08-K2A
With large tip, 12 cm	1 pcs	08-K35A
Curved tip, 12 cm	1 pcs	08-K6
With flat tip, 12 cm	1 pcs	08-KR

Antimagnetic steel microscopy forceps, resistant to acids.

PRODUCT	PACKAGING	CODE
Curved and flat tip, 11,5 cm	1 pcs	08-321
Flat tip for slides, 10,5 cm	1 pcs	08-325
Pointed reeded, 14 cm	1 pcs	08-524
Curved and flat tip, 15,5 cm	1 pcs	08-615

## Coated paper

Bench paper, with one waterproof side, covered by a polyethylene film.

PRODUCT	PACKAGING	CODE
Sheets, 48 x 60 cm	100 pcs	08-CA2000
Bench Guard, roll, 50 m	1 pcs	08-BG50
Bench Guard, sheets, 60 x 49 cm	50 pcs	08-BG60



## Filter paper

For all laboratory requirements.  
Good resistance, under both wet and dry conditions.

SIZE	PACKAGING	CODE
50 x 50 cm	500 pcs	08-656

Slide printer

Extremely compact printer for histology slides, with thermal transfer printing technology. It allows both black&white and colour HD (high definition) printing of text, images, logotypes or Data Matrix and 2D bar codes. It can be interfaced with the laboratory reporting system.



Features

Dimension:	179,8 x 319,5 x 218,4 mm (w x d x h)
Weight:	7,62 Kg
Slides capacity:	loading capacity of 100 slides, Charger with LED lighting, for visual check of the amount of remaining slides
Output capacity:	15 slides/minute
Printing system:	thermal Transfer
Print speed:	up to 7 slides per minute (monochrome) up to 5 slides per minute (colour)
Print colours:	8 colours, other colours available by colour combination
Slides compatibility:	bevelled slides with 90° corners with coloured band dimension :76,2 x 25,4 mm (3"x1") standard or positively calibrated, bevelled, with satin white band

PRODUCT	CODE
Slide printer	078102

Dedicated microscope slides

DESCRIPTION	PACKAGING	CODE
Ground edge, white end	2.500 pcs	PR-001
Ground edge, white end, positively charged	2.500 pcs	PR-S-001





## Microscope slides

High quality Menzel Glaser slides, cleaned and degreased; cellophane wrapped and free from dust, dirt and cracks.

Bio-Optica microscope slides are resistant to enzymatic treatments and microwaves (750-800 watt).

Dimensions: 26 x 76 mm.

CUSTOM SLIDE SIZE AVAILABLE UPON REQUEST.

## Microscope slides, cut edge

### STANDARD

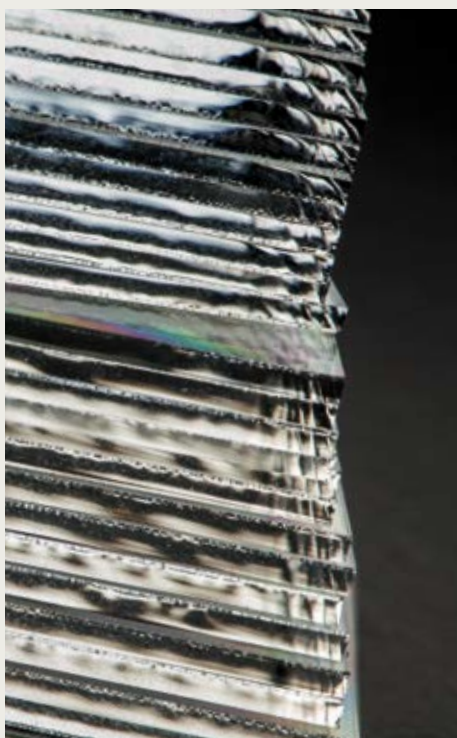
END	PACKAGING	CODE
Neutral	1.000 pcs	09-OT95
Frosted	1.000 pcs	09-OTB95

### STANDARD WITHOUT CELLOPHANE

END	PACKAGING	CODE
Neutral	1.000 pcs	09-OT95SC
Frosted	1.000 pcs	09-OTB95SC

### SUPERFROST WITH COLOURED FROSTED END

END	PACKAGING	CODE
Orange	1.000 pcs	09-9050
White	1.000 pcs	09-9030
Blue	1.000 pcs	09-9010
Yellow	1.000 pcs	09-9040
Pink	1.000 pcs	09-9000
Green	1.000 pcs	09-9020



## Microscope slides, 90° ground edge

### STANDARD

END	PACKAGING	CODE
Neutral	1.000 pcs	09-0M90
Frosted	1.000 pcs	09-0MB90

### SUPERFROST WITH COLOURED FROSTED END

END	PACKAGING	CODE
Orange	1.000 pcs	09-9250
White	1.000 pcs	09-9230
Blue	1.000 pcs	09-9210
Yellow	1.000 pcs	09-9240
Pink	1.000 pcs	09-9200
Green	1.000 pcs	09-9220



## Microscope slides, 45° ground edge

### STANDARD

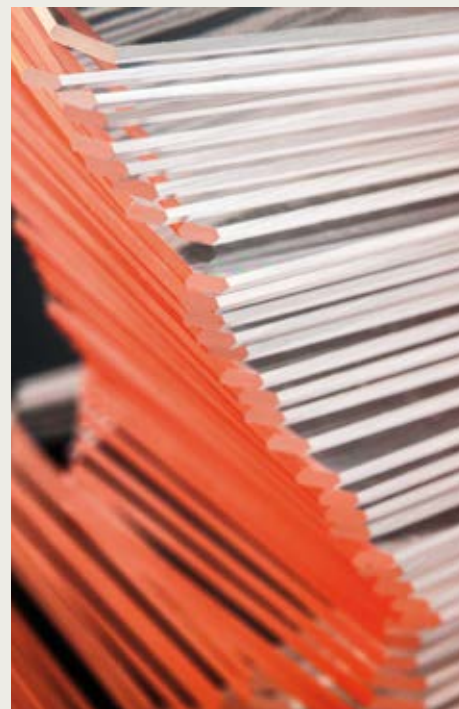
END	PACKAGING	CODE
Neutral	1.000 pcs	09-0M95
Frosted	1.000 pcs	09-0MB95

### STANDARD WITHOUT CELLOPHANE

END	PACKAGING	CODE
Neutral	1.000 pcs	09-0M95SC
Frosted	1.000 pcs	09-0MB95SC

### SUPERFROST WITH COLOURED FROSTED END

END	PACKAGING	CODE
Orange	1.000 pcs	09-9150
White	1.000 pcs	09-9130
Blue	1.000 pcs	09-9110
Yellow	1.000 pcs	09-9140
Pink	1.000 pcs	09-9100
Green	1.000 pcs	09-9120



## Superfrost Printink microscope slides

High quality slides, cleaned and degreased, specially designed for ink jet printers.  
Dimensions: 26 x76 mm.

EDGE	END	PACKAGING	CODE
Cut	Pink	1.000 pcs	09-9000P
Cut	Blue	1.000 pcs	09-9010P
Cut	Green	1.000 pcs	09-9020P
Cut	White	1.000 pcs	09-9030P
Cut	Yellow	1.000 pcs	09-9040P
Cut	Orange	1.000 pcs	09-9050P
45° ground edge	Pink	1.000 pcs	09-9100P
45° ground edge	Blue	1.000 pcs	09-9110P
45° ground edge	Green	1.000 pcs	09-9120P
45° ground edge	White	1.000 pcs	09-9130P
45° ground edge	Yellow	1.000 pcs	09-9140P
45° ground edge	Orange	1.000 pcs	09-9150P
90° ground edge	Pink	1.000 pcs	09-9200P
90° ground edge	Blue	1.000 pcs	09-9210P
90° ground edge	Green	1.000 pcs	09-9220P
90° ground edge	White	1.000 pcs	09-9230P
90° ground edge	Yellow	1.000 pcs	09-9240P
90° ground edge	Orange	1.000 pcs	09-9250P





## Coated microscope slides

### POLYSINE SLIDES

Adhesion is guaranteed by a chemical coating with properties equivalent to polysine.

FEATURES	SIZE	PACKAGING	CODE
90° ground edge	25 x 75 mm	72 pcs	09-OPOL

### SUPERFROST PLUS SLIDES

An electrostatic treatment charges slide surface positively, allowing to obtain perfect adhesion for the sections with enzymatic digestion, DNA denaturation, RNA hybridization.

FEATURES	SIZE	PACKAGING	CODE
90° ground edge	25 x 75 mm	72 pcs	09-OPLUS

### SUPERFROST PLUS GOLD SLIDES

Designed to guarantee maximum adhesion to cryostat sections, thanks to a new coating that chemically binds the section to the slide

FEATURES	SIZE	PACKAGING	CODE
90° ground edge	25 x 75 mm	72 pcs	09-OPLUS/G

### SUPERFROST ULTRAPLUS SLIDES

Next generation slides, positively charged. They ensure perfect section adhesion even in case of stronger treatments.

FEATURES	SIZE	PACKAGING	CODE
90° ground edge	25 x 75 mm	72 pcs	09-OPLUS/U
45° ground edge	25 x 75 mm	72 pcs	09-OPLUS/U45

## Diagnostic slides

Well chamber slides for immunohistochemistry, immunofluorescence or immunolabelling of histology sections and cell cultures.

COATING	N. WELLS	PACKAGING	CODE
Epoxy resin	1	100 pcs	09-ER315
Epoxy resin	3	100 pcs	09-ER303
Epoxy resin	8	100 pcs	09-ER301
Epoxy resin	10	100 pcs	09-ER308
Epoxy resin	12	100 pcs	09-ER302
Teflon	3	100 pcs	09-ER203
Teflon	8	100 pcs	09-ER201
Teflon	10	100 pcs	09-ER208
Teflon	12	100 pcs	09-ER202



## Markers

### Cassette markers

Special permanent markers: they do not discolour during processing, guaranteeing perfect specimen identification.

They can write on glass, metal, porcelain and plastic.

MODEL AND COLOUR	PACKAGING	CODE
Securline Marker II – black	10 pcs	11-51
Securline Marker II – red	10 pcs	11-56
Histology Pen - black	12 pcs	11-50



### Tube Checker

Special ink pen for indelible marking of embedding cassettes. Ink is resistant to alcohols and xylene.

Pens have two tips: large and fine.

COLOUR	PACKAGING	CODE
Black	1 pcs	11-400



### Electric engraving pen

Small low-voltage device for slide engraving.

PRODUCT	PACKAGING	CODE
Electric glass marker	1 pcs	11-60
Spare tip	3 pcs	11-61



### Diamond point pen

For slide engraving.

PRODUCT	PACKAGING	CODE
With aluminium hex handle	1 pcs	08-DS2F
In glossed metal with diamond vanishing tip	1 pcs	08-DS3



### Tissue Capture

Large tip (18 mm) pen for coating slides with polysine, resistant to solvents.

PACKAGING	CODE
1 pcs	11-200





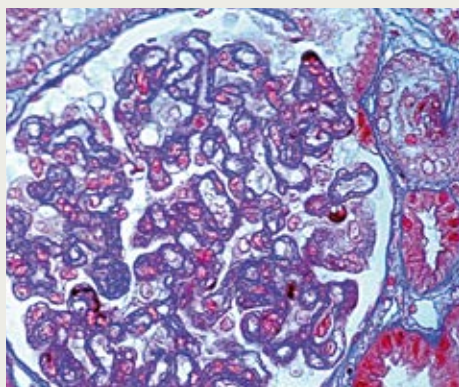


## Manual staining kit

From their launch on the market, Bio-Optica staining kits have been achieving more and more success among Italian and European operators, mainly thanks to the special features we would like to highlight:

- fast and easy to use
- result repeatability
- reasonable cost
- operator safety
- reduced environmental impact

### Afog



#### PRODUCT AND APPLICATION

#### CODE

#### ● Afog Acid Fuchsin Orange G

04-021002

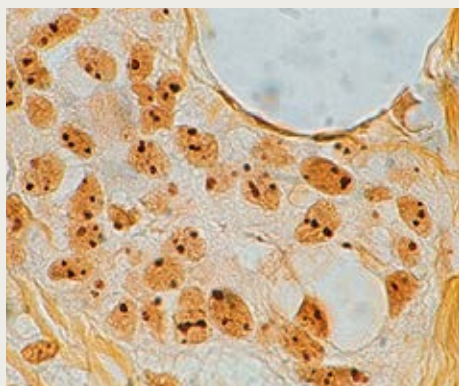
Reference method for staining protein deposits in kidney biopsy.

Number of test	100
Procedure time	22 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Collagen fibrils	blue
Nuclei	black
Erythrocytes, cytoplasm	pink - orange
Elastic fibrils	pale pink or unstained
Glomerular protein deposits	lively red

### AgNOR



#### PRODUCT AND APPLICATION

#### CODE

#### ● AgNOR

04-045801

Method for staining argentophilic deposits (100 kD) in the nucleolar organizer region (NOR) in paraffin embedded sections and smears.

Number of test	48
Procedure time	30 minutes
Product validity	1 year
Storage temperature	darkness, 15 - 25 °C

#### Result

AgNOR, argentaaffin granules	black
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PRODUCT AND APPLICATION

CODE

- **Alcian Blue pH 0,5** 04-165812
- **Alcian Blue pH 1** 04-166802

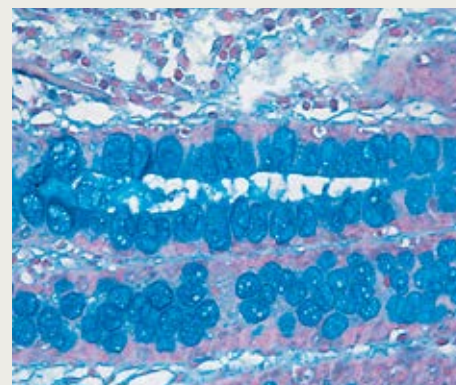
For staining strongly sulphured mucins in tissue sections.

Number of test	100
Procedure time	50 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

Strongly sulphured mucins	turquoise blue
Nuclei	red

**Alcian Blue**



PRODUCT AND APPLICATION

CODE

- **Alcian Blue pH 2,5** 04-160802

Method for staining acid mucopolysaccharides in tissue sections.

Number of test	100
Procedure time	50 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

Acid mucopolysaccharides	turquoise blue
Nuclei	red

PRODUCT AND APPLICATION

CODE

- **Alcian Blue pH 2,5 - pH 1** 04-161802

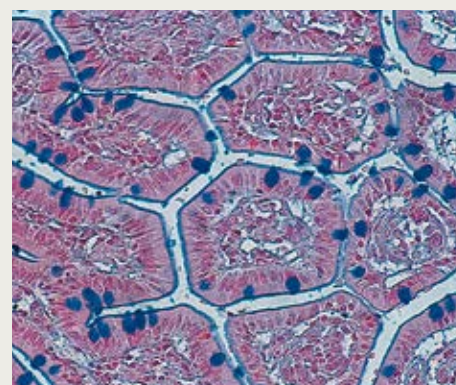
Method for staining and distinguishing acid mucopolysaccharides in tissue sections. For staining only strongly sulphured mucins, leaving out slightly sulphured mucins, hyaluronic acid and sialomucins, this method requires 2 serial sections. The first one is treated by using Alcian blue pH 2.5 solution, and the subsequent one by Alcian blue pH 1 solution. By comparing the two specimens, the quantity of strongly sulphated mucins can be observed.

Number of test	100
Procedure time	50 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

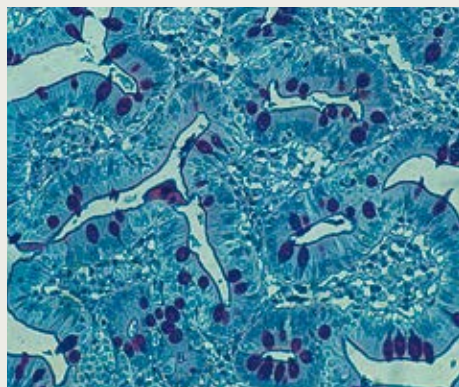
**Result**

Acid mucopolysaccharides	turquoise blue
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**Alcian Blue pH 2,5 - 1**



## Alcian Blue PAS



### PRODUCT AND APPLICATION

### CODE

#### ● **Alcian Blue pH 2,5 PAS**

04-163802

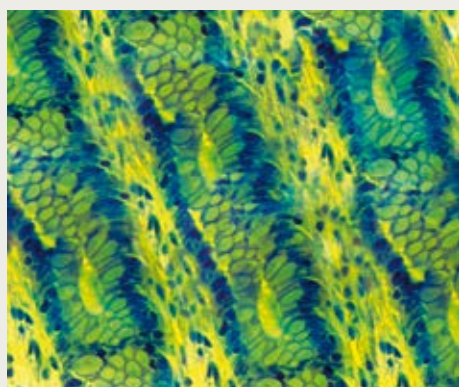
Combined method to distinguish between acid mucins, neutral mucins and carbohydrates in tissue sections.

Number of test	100
Procedure time	1 h 25 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

#### **Result**

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

## Alcian Yellow - Toluidine Blue



### PRODUCT AND APPLICATION

### CODE

#### ● **Alcian yellow-toluidine blue for Helicobacter pylori**

04-169812

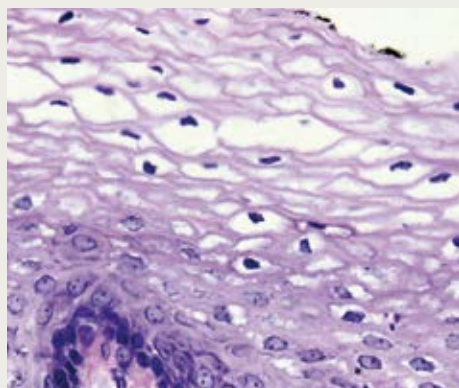
Combined method for staining Helicobacter pylori and epithelial mucins in gastric tissue sections; recommended thickness 5 µm.

Number of test	100
Procedure time	25 minutes
Product validity	1 year
Storage temperature	15 - 25 °C

#### **Result**

Helicobacter pylori	blue
Mucin	yellow
Background	pale blue

## Amylase



### PRODUCT AND APPLICATION

### CODE

#### ● **Amylase - for enzymatic digestion**

04-140808

Removal of glycogen from:

- Hepatic tissue, paraffin embedded sections: histological section digestion by amylase-based solution is recommended when glycogen has to be removed for observing only epithelial neutral mucins. This is the preferred method for hepatic biopsy.
- Muscular tissue: by analysing adjacent cryostat sections, one of whom previously treated with amylase, glycogen presence can be assessed from a quality point of view.

Number of test	100
Procedure time	10 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

#### **Result**

Further to PAS reaction, glycogen removal can be observed by comparing the specimen with an adjacent section of the same specimen that was not treated with amylase.

PRODUCT AND APPLICATION

CODE

● **Azan trichrome staining**

04-001802

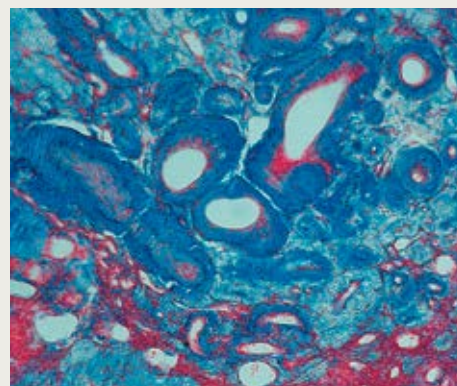
Preferred method for the connective tissue, especially recommended for muscular fibres, glial cells, collagen, reticulum, kidney stromal glomerular cells, erythrocytes and nuclear chromatin.

Number of test	100
Procedure time	1 h 40 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

Collagen, reticulum, basophil cells granules of hypophysis, juxtaglomerular granules and kidney glomerular stroma	deep blue
Neuroglia	reddish
Muscle	orange
Chromatin, erythrocytes and acidophil granules of hypophysis	red
Cytoplasmatic granules of hypophysis delta cells	light blue

**Azan Trichrome**



PRODUCT AND APPLICATION

CODE

● **Bielschowsky for neurofibrils**

04-040805

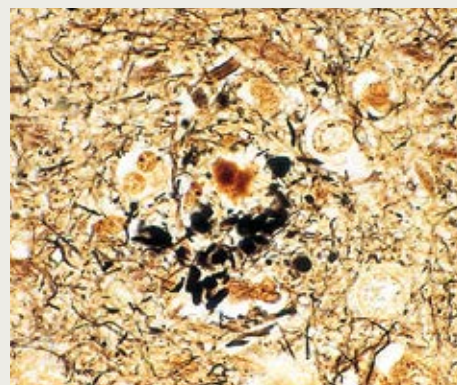
Recommended method for staining neurofibrils, axons, dendrites and senile plaque.

Number of test	100
Procedure time	45 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

**Result**

Neurofibrils, axons and dendrites	black
Background	yellow - tobacco brown

**Bielschowsky**



PRODUCT AND APPLICATION

CODE

● **Brown - Brenn for bacteria**

04-100807

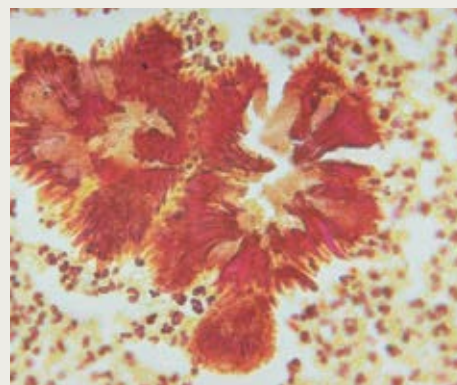
Method for distinguishing between Gram-positive and Gram-negative bacteria.

Number of test	100
Procedure time	8 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

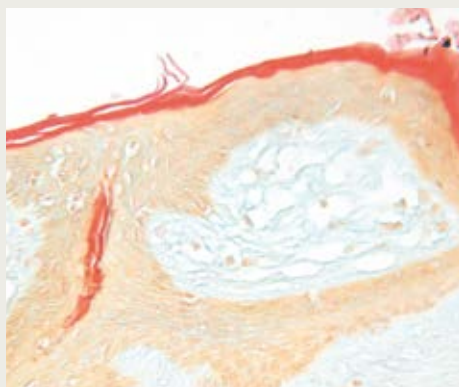
Gram-positive bacteria	blue
Gram-negative bacteria	red
Filaments of Nocardia and Actinomyces	blue
Nuclei	red
Other tissue elements	yellow

**Brown - Brenn**





## Dane



### PRODUCT AND APPLICATION

### CODE

#### ● Dane's staining method for keratin (modified)

04-220822

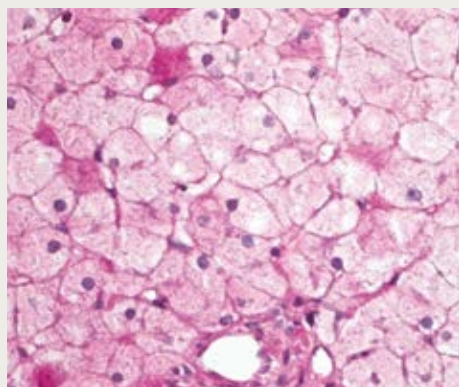
Method for staining prekeratin, keratin and mucin in tissue sections. Especially suitable for skin pathologies.

Number of test	100
Procedure time	40 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Pre-keratin and keratin	orange, red-orange
Mucins	turquoise
Nuclei	orange-brown

## Diastase



### PRODUCT AND APPLICATION

### CODE

#### ● Diastase for enzymatic digestion

04-140805

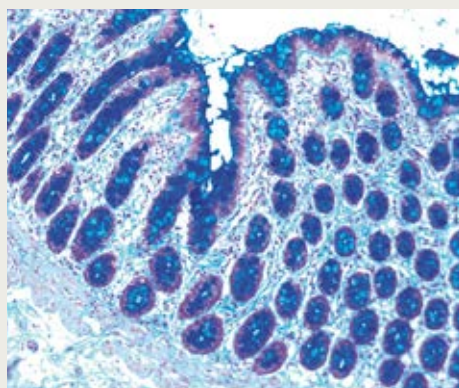
Histological section digestion by diastase solution is recommended when glycogen has to be removed for observing only epithelial neutral mucins. This is the preferred method for hepatic biopsy.

Number of test	40
Procedure time	30 minutes (oven) or 1 h (room Temperature)
Product validity	1 year
Storage temperature	2 - 8 °C

#### Result

Further to PAS reaction, glycogen removal can be observed by comparing the specimen with an adjacent section of the same specimen that was not treated with diastase.

## Colloidal iron



### PRODUCT AND APPLICATION

### CODE

#### ● Colloidal iron for acid mucins

04-180809

Method recommended for observing acid mucins.

Number of test	12 assays x 50 ml
Procedure time	1 h 30 minutes
Product validity	1 year
Storage temperature	15 - 25 °C

#### Result

Acid mucins	blue
Nuclei	red

# PRODUCT AND APPLICATION

# CODE

## ● Feulgen reaction for DNA

04-120802

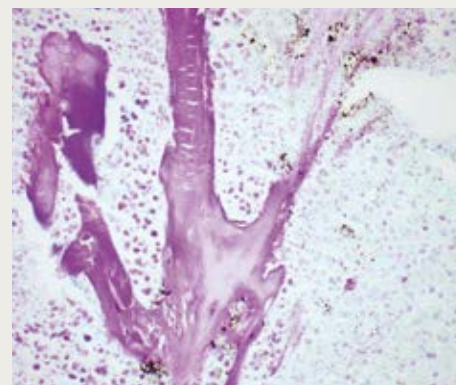
This method is used for DNA staining in tissue sections.

Number of test	100
Procedure time	1 h 5 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

### Result

DNA	magenta red
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## Feulgen



# PRODUCT AND APPLICATION

# CODE

## ● Fouchet-Van Gieson for bilirubin

04-121872

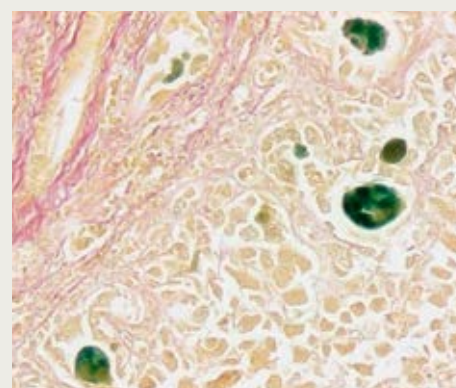
For staining bilirubin in tissue sections.

Number of test	100
Procedure time	35 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

### Result

Bilirubin	green
Connective tissue	red
Collagen	yellow

## Fouchet-Van Gieson



# PRODUCT AND APPLICATION

# CODE

## ● Gomori's paraldehyde-fuchsin

04-045872

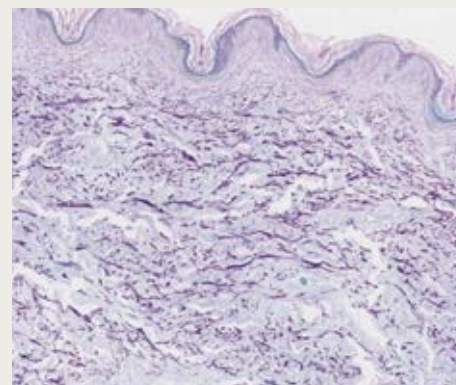
For staining, in tissue sections, the elastic fibres and secretion granules in alpha and beta cells of the islands of Langerhans in endocrine pancreas.

Number of test	100
Procedure time	1 h 15 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

### Result

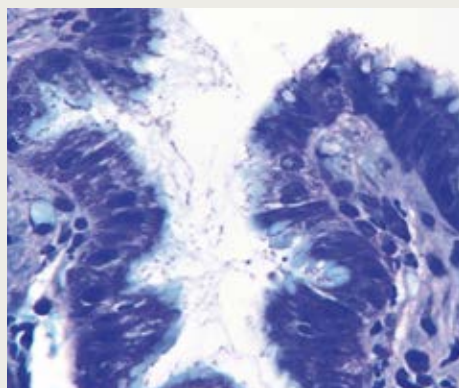
Beta cells granules	dark violet
Cells nuclei	dark violet
Background	red
Connective tissue	green

## Fuchsin Paraldehyde





## Giemsa



### PRODUCT AND APPLICATION

### CODE

#### ● Giemsa for Helicobacter pylori

04-090803

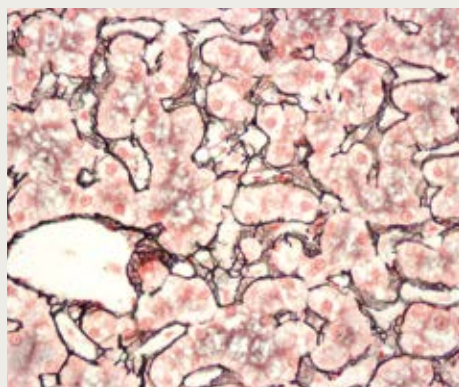
Method for staining Helicobacter pylori in gastric biopsy sections. Thanks to staining mixture composition (in terms of both quality and quantity) as well as the accurate differentiation, selective bacteria identification against an especially clean background is possible.

Number of test	75
Procedure time	1 h
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Helicobacter pylori	blue, in form of seagull's wing
Nuclei	blue
Cytoplasm	pink

## Gordon-Sweet



### PRODUCT AND APPLICATION

### CODE

#### ● Gordon-Sweet for reticulum

04-040802

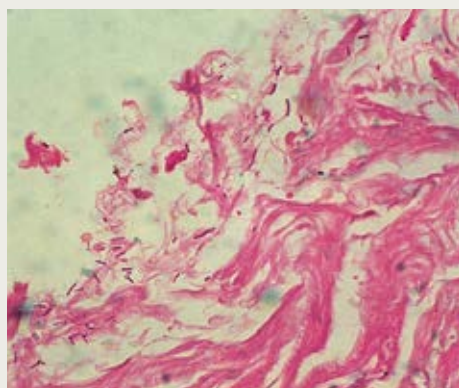
Recommended method for staining argyrophilic reticular fibres in the connective tissue.

Number of test	100
Procedure time	40 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

#### Result

Reticular and nervous fibers	black
Nuclei	red

## Gram



### PRODUCT AND APPLICATION

### CODE

#### ● Gram staining for bacteria

04-100802

Method for distinguishing Gram-positive and Gram-negative bacteria in histological sections, smears and tissue appositions.

Number of test	100
Procedure time	40 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Gram-positive bacteria	blue
Gram-negative bacteria	red
Nuclei	red

# PRODUCT AND APPLICATION

# CODE

## ● Grimelius method for argyrophilic reaction

04-044822

for microwave oven

04-044822W

For staining argyrophilic substances in tissue sections and appositions.

Number of test 100

Procedure time 3 h 35 minutes  
(20 minutes with microwave oven)

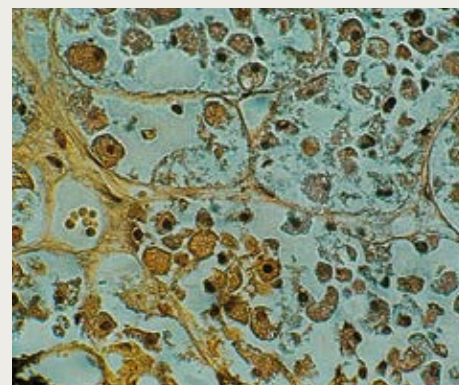
Product validity 1 year

Storage temperature 2 - 8 °C

## Result

Argyrophilic granules from light brown to black

## Grimelius



# PRODUCT AND APPLICATION

# CODE

## ● Grocott for fungi

04-043823

for microwave oven

04-043823W

Method used for staining fungi in tissue sections.

Number of test 120

Procedure time 1 h 50 minutes  
(50 minutes with microwave oven)

Product validity 1 year

Storage temperature 2 - 8 °C

## Result

Fungi sharply delineated in black

Mucines dark grey

Background green

## Grocott



# PRODUCT AND APPLICATION

# CODE

## ● Bovine testicular hyaluronidase for enzymatic digestion

04-150805

Histology section digestion by hyaluronidase is recommended for removing complex carbohydrates, such as hyaluronic acid and chondroitin sulphate A and B.

Number of test 10

Procedure time 1 h

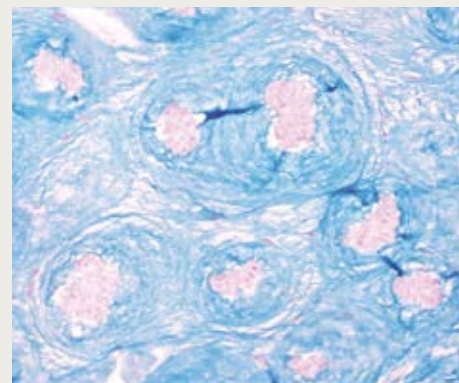
Product validity 1 year

Storage temperature 2 - 8 °C

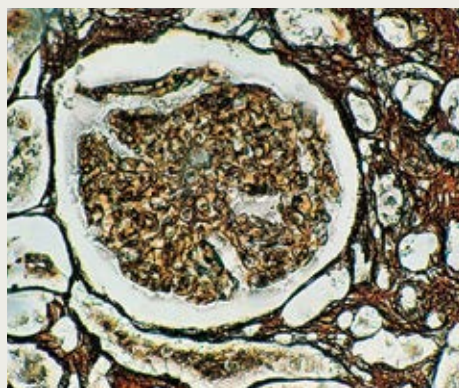
## Result

The failure to stain the specimen section through Alcian Blue has to be related to the presence of hyaluronic acid or chondroitin sulphates.

## Hyaluronidase



## Silver impregnation



### PRODUCT AND APPLICATION

### CODE

#### ● Silver impregnation for reticulum

04-040801

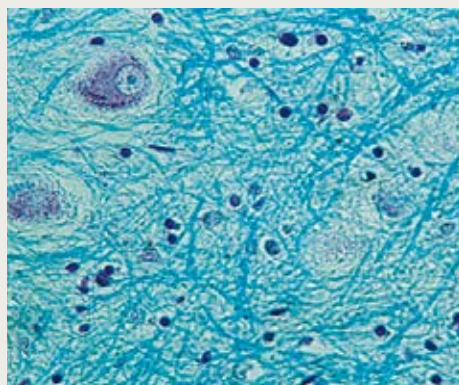
Recommended method for staining argyrophilic reticular fibres in the connective tissue.

Number of test	100
Procedure time	35 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

#### Result

Reticular and nervous fibers	black
Connective tissue	tobacco brown
Collagen	gold yellow

## Luxol fast blue



### PRODUCT AND APPLICATION

### CODE

#### ● Klüber Barrera Luxol fast blue

04-200812

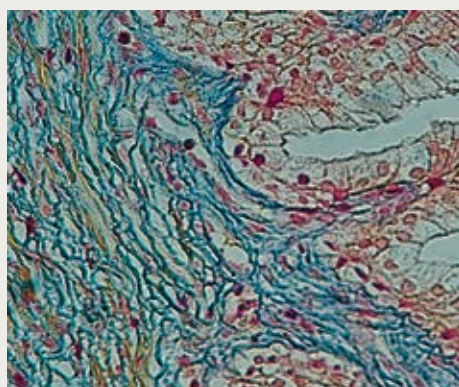
Recommended method for staining myelin and phospholipids in histological sections.

Number of test	100
Procedure time	20 minutes + overnight
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Myelin	turquoise blue
Neurons and glial nuclei	pink to violet
Nissl substance	pale pink

## Mallory Trichrome



### PRODUCT AND APPLICATION

### CODE

#### ● Mallory trichrome staining

04-020802

Reference method for staining connective tissue in histological sections. It is especially suitable for staining collagen, reticulum, cartilage, bones, amyloid.

Number of test	100
Procedure time	20 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Collagen fibrils	deep blue
Nuclei, myofibrils, neuroglia fibrils, cartilage, bone	red
Erythrocytes, myelin	gold yellow
Elastic fibrils	pale pink, yellow or unstained

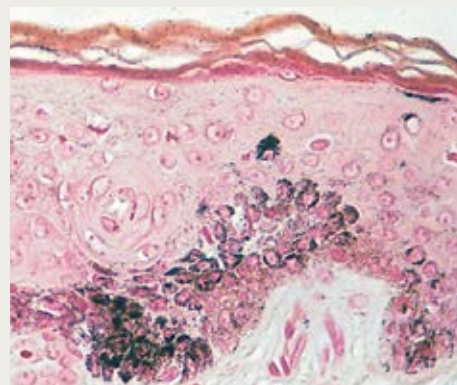


PRODUCT AND APPLICATION

CODE

● <b>Masson Fontana for melanin</b>	04-041822
for microwave oven	04-041822W
Preferred method for observing the melanotic pigment in histological tissue sections.	
Number of test	100 (25 assays for microwave oven)
Procedure time	45 minutes + overnight (20 minutes with microwave oven)
Product validity	1 year
Storage temperature	2 - 8 °C
<b>Result</b>	
Melanin	black
Nuclei	red

## Masson Fontana

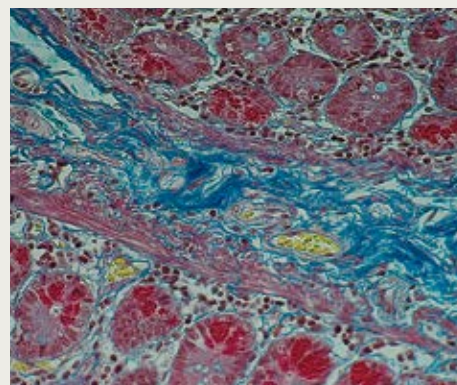


PRODUCT AND APPLICATION

CODE

● <b>Masson trichrome staining with aniline blue</b>	04-010802
Preferred method for connective tissue, especially suitable for gametes, nuclei, neurofibrils, neuroglia, collagen, keratin, intracellular fibrils and Golgi apparatus negative images.	
Number of test	100
Procedure time	35 minutes
Product validity	2 years
Storage temperature	15 - 25 °C
<b>Result</b>	
Nuclei and gametes	black
Cytoplasm, keratin, muscle fibres, acidophil granules	red
Collagen, mucus, basophil granules of hypophysis	blue
Delta cells granules of hypophysis	blue
Erythrocytes	yellow

## Masson Trichrome

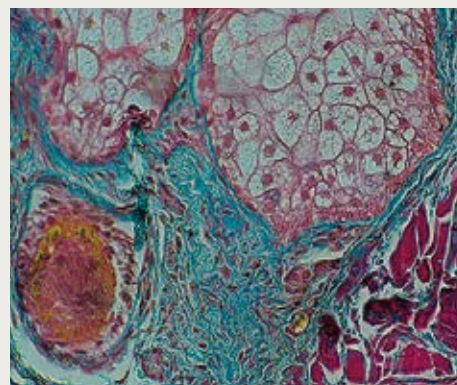


PRODUCT AND APPLICATION

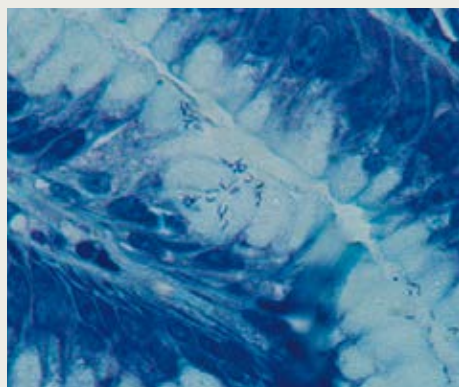
CODE

● <b>Masson-Goldner trichrome (light green) staining</b>	04-011802
Preferred method for connective tissue, suitable for gametes, nuclei, neurofibrils, neuroglia, collagen, keratin, intracellular fibrils and Golgi apparatus negative image.	
Number of test	100
Procedure time	35 minutes
Product validity	2 years
Storage temperature	15 - 25 °C
<b>Result</b>	
Nuclei and gametes	black
Cytoplasm, keratin, muscle fibres, acidophil granules	red
Collagen, mucus, basophil granules of hypophysis	green
Delta cells granules of hypophysis	green
Erythrocytes	yellow

## Masson Trichrome Goldner



## May Grünwald Giemsa



### PRODUCT AND APPLICATION

### CODE

#### ● May Grünwald Giemsa for sections

04-081802

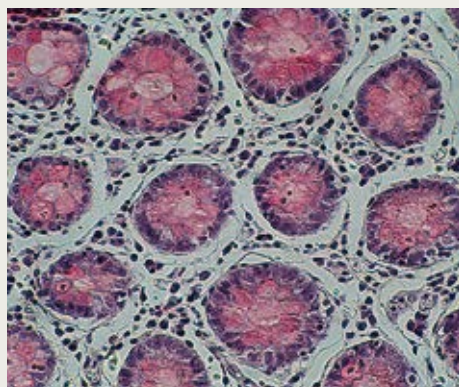
Preferred method for distinguishing cell types and staining parasites in tissue sections; especially suitable for lymphohematopoietic tissues. This staining method is often used for identifying endothelial reticulum.

Number of test	100
Procedure time	35 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Nuclei	blue
Basophil cytoplasm	from pale blue to dark blue
Acidophil cytoplasm	pink
Bacteria	blue

## Mucicarmine



### PRODUCT AND APPLICATION

### CODE

#### ● Mayer's Mucicarmine

04-190812

Recommended method for staining epithelial acid mucopolysaccharides (mucins) in histological sections. The use of Mucicarmine has a low level of specificity: indeed, generally mucins from fibroblasts are stained poorly.

Number of test	100
Procedure time	50 minutes
Product validity	1 year
Storage temperature	15 - 25 °C

#### Result

Mucins	deep pink to red
Nuclei	blue-violet
Other components	orange

## Nitro blue tetrazolium

### PRODUCT AND APPLICATION

### CODE

#### ● Nitro blue tetrazolium

04-253031

For staining the areas affected by a heart attack: the ischaemic muscle can be stained, showing the loss of oxidative activity thanks to the nitro blue tetrazolium staining of the fresh specimen.

Number of test	15
Procedure time	30 minutes
Product validity	2 years
Storage temperature	2 - 8 °C

#### Result

The infarcted areas are not stained



PRODUCT AND APPLICATION

CODE

● **Oil red O**

04-220923

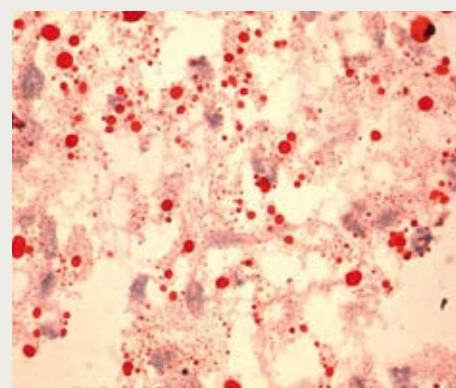
For staining lipids on cryostat tissue sections. Fixation: we recommend using saline formalin or Baker's fixative to prevent phospholipid dissolution.

Number of test	100
Procedure time	25 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

Lipids	red
Nuclei	blue

**Oil red O**



PRODUCT AND APPLICATION

CODE

● **Orcein for elastic fibres**

04-055802

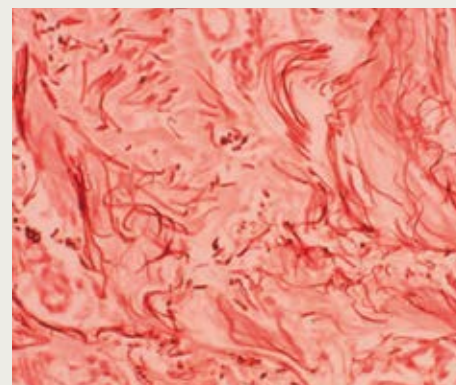
Identification of elastic fibres in tissue sections.

Number of test	100
Procedure time	30 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

Elastic fibers	brown-purplish red
Background	almost colourless

**Orcein**



PRODUCT AND APPLICATION

CODE

● **P.A.S. Periodic Acid Schiff according to Hotchkiss - MC Manus**

04-130802

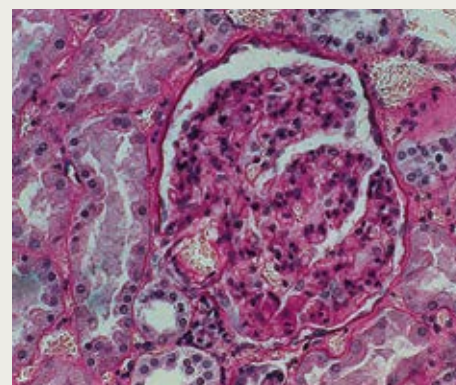
For staining normal or pathological tissue components through adjacent aminohydroxyl or glycolic groups.

Number of test	100
Procedure time	30 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

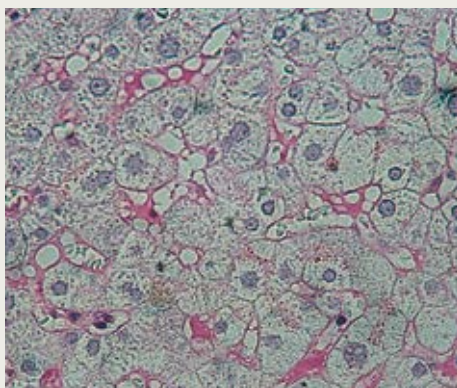
**Result**

Positive P.A.S. substances	magenta red
Nuclei	blue

**P.A.S. Periodic Acid Schiff**



## P.A.S. - A



### PRODUCT AND APPLICATION

### CODE

#### ● P.A.S. - A Periodic Acid Schiff - Amylase

04-130803

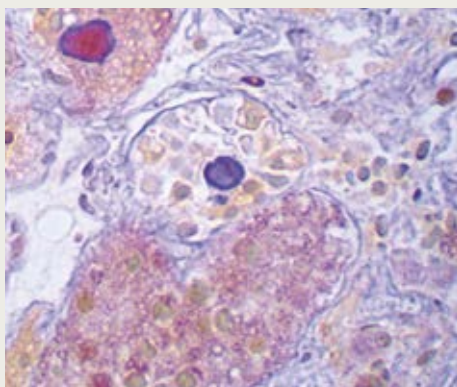
Preferred method for revealing the presence of glycogen in fixed sections of hepatic tissue or in frozen specimens of muscular tissue.

Number of test	100
Procedure time	60 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

#### Result

Positive P.A.S. substances	magenta red
Nuclei	blue

## P.A.S. Pearse



### PRODUCT AND APPLICATION

### CODE

#### ● P.A.S. Pearse

04-132802

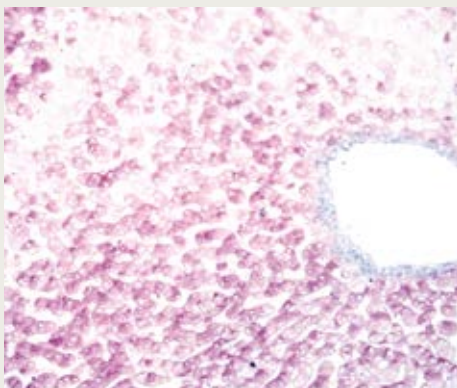
P.A.S. reaction recommended for distinguishing alpha and beta hypothalamus cells.

Number of test	100
Procedure time	60 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

#### Result

P.A.S. positive substances	red purple
Nuclei	dark-brown
Alpha cells granules and erythrocytes, cytoplasm, red cells	orange
Gamma cells granules	purplish violet

## P.A.S. Picro Indigo Carmine



### PRODUCT AND APPLICATION

### CODE

#### ● P.A.S. Picro Indigo Carmine, Morel - Maronger modified

04-131802

Method suitable for observing simultaneously neutral mucopolysaccharides and connective tissue in tissue sections.

Number of test	100
Procedure time	45 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

#### Result

P.A.S. positive substances	magenta red
Connective tissue	blue green
Muscle, horny layer of the skin, neuroglia fibers and erythrocytes	yellow-green

# PRODUCT AND APPLICATION

# CODE

## ● **Perls method for ferric iron** 04-180807

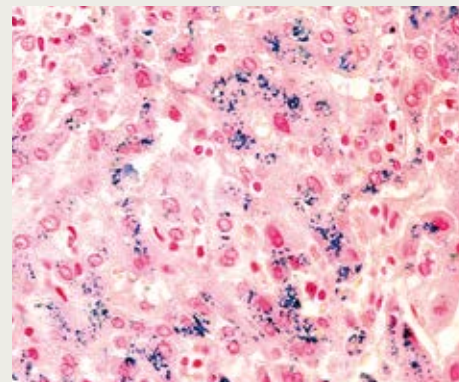
Method suitable for observing reactive ferric iron in tissue sections and blood and bone marrow smears.

Number of test	60
Procedure time	35 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

### Result

Reactive ferric iron	blue
Nuclei	red

## Perls



# PRODUCT AND APPLICATION

# CODE

## ● **Perls - Van Gieson method for connective tissue and ferric iron** 04-181807

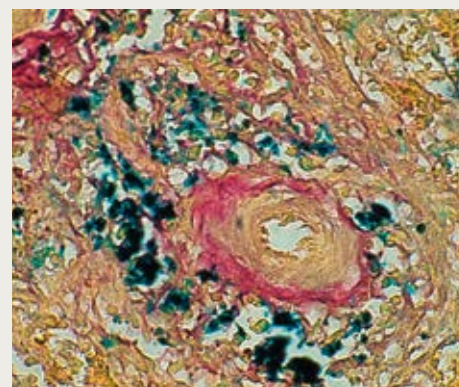
Method suitable for observing simultaneously reactive ferric iron, collagen and connective tissue in tissue sections.

Number of test	100
Procedure time	35 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

### Result

Reactive ferric iron	blue
Collagen	purple red
Cytoplasm, muscle, horny layer of the skin, neuroglia and erythrocytes	yellow

## Perls - Van Gieson



# PRODUCT AND APPLICATION

# CODE

## ● **Picro Mallory trichrome staining** 04-021822

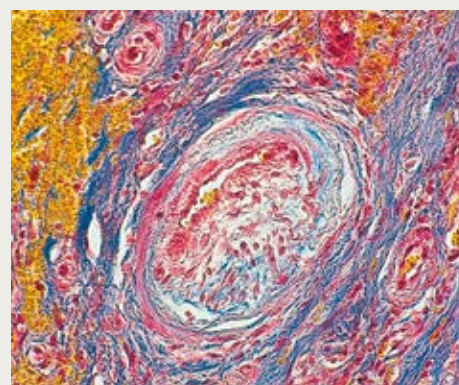
Trichrome staining especially recommended for connective tissue sections.

Number of test	100
Procedure time	40 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

### Result

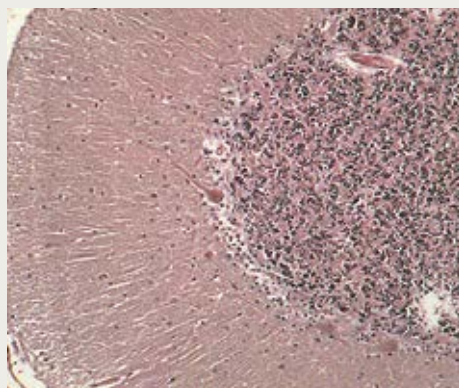
Nuclei	dark brown
Collagen fibers	dark blue
Ground substance of cartilage, bone, mucus, basophil granules of hypophysis and amyloid	varying shades of blue
Fibroglia, neuroglia, axis cylinders and fibrine	red
Acidophil granules of hypophysis	orange
Myelin and erythrocytes	yellow
Elastic fibers	from pale pink to yellow

## Picro Mallory Trichrome





## P.T.A.H.



### PRODUCT AND APPLICATION

### CODE

#### ● P.T.A.H. Phosphotungstic acid hematoxylin

04-060802

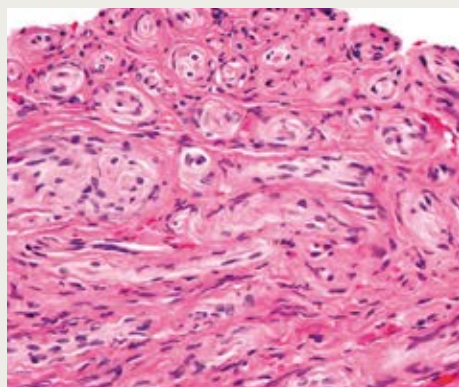
This method was originally developed for staining the neuroglia. Nowadays, it is used for distinguishing smooth and striated muscle tissues (staining the isotropic bands of skeletal muscle myofibrils). It is also used for fibrin.

Number of test	100
Procedure time	13 minutes + overnight
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Nuclei, fibrins (for a great part)	dark blue
myofibrils, astrocytes, some elastic fibers, neuroglia, myelin fibers	
Collagen, bone matrix, cartilage	rick red in various tonalities

## Rapid frozen sections



### PRODUCT AND APPLICATION

### CODE

#### ● Rapid frozen sections H&E staining kit

04-061010

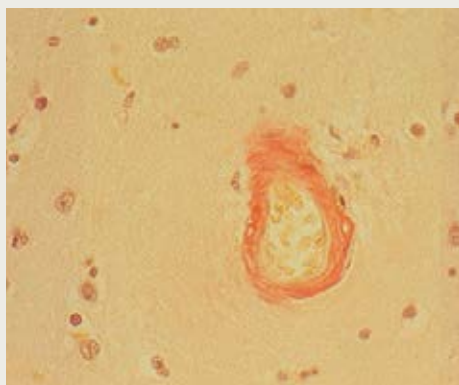
Kit for rapid H&E staining for frozen sections (6 micron thickness).

Number of test	100
Procedure time	3 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Nuclei	blue
Cytoplasm, connective tissue	various shades of pink

## Congo Red



### PRODUCT AND APPLICATION

### CODE

#### ● Congo Red staining according to Highman

04-210822

Method for staining amyloid in tissue sections.

Number of test	100
Procedure time	35 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Amyloid	brick red, birefringent in polarized light
Nuclei	blue

PRODUCT AND APPLICATION

CODE

● **Sirius Red** 04-210923

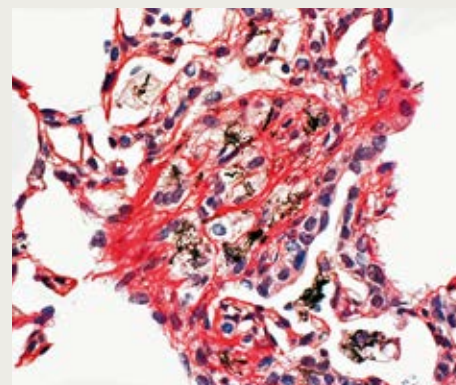
Method for amyloid staining in formalin fixed and paraffin embedded tissues.

Number of test	100
Procedure time	1 h 15 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

Amyloid	pink- red
Nuclei	blue

**Sirius Red**



PRODUCT AND APPLICATION

CODE

● **Picro Sirius Red** 04-121873

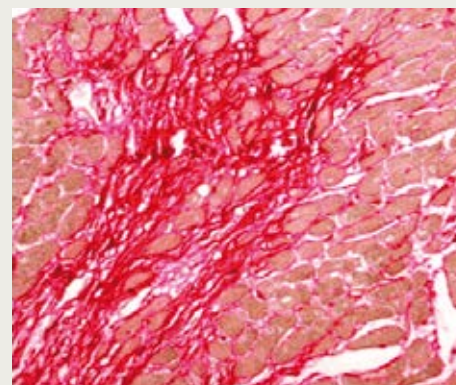
Method suitable for staining collagen fibres and bile pigments in tissue sections.

Number of test	100
Procedure time	60 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

Collagen fibers	red
Bilirubin	green
Nuclei	blue
Erythrocytes	red

**Picro Sirius Red**



PRODUCT AND APPLICATION

CODE

● **Periodic acid-silver methenamine (P.A.S.M.)** 04-043822

for microwave oven 043822W

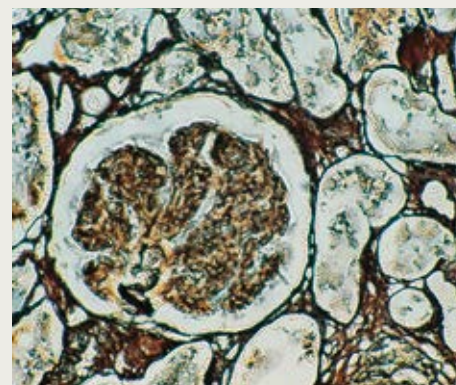
Method used for staining mucopolysaccharidic and argyrophilic elements (basal membranes, mycetes, bacteria, etc.) in tissue sections. Preferred method for studying basal membranes in kidney biopsy.

Number of test	100 (120 test for microwave oven)
Procedure time	1 h 15 minutes (45 minutes for microwave oven)
Product validity	1 year
Storage temperature	2 - 8 °C

**Result**

Basement membranes, glycogen, mycetes and bacterial capsule black

**Silver methenamine**





## Sodium Rhodizonate

PRODUCT AND APPLICATION

CODE

- **Sodium Rhodizonate** 04-182809

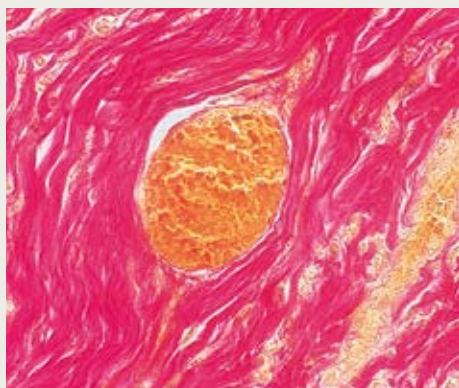
Method recommended for staining lead in tissue sections.

Number of test	25
Procedure time	1 h 5 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

### Result

Lead	black
Background	green

## Van Gieson Trichrome



PRODUCT AND APPLICATION

CODE

- **Van Gieson trichrome staining** 04-030802

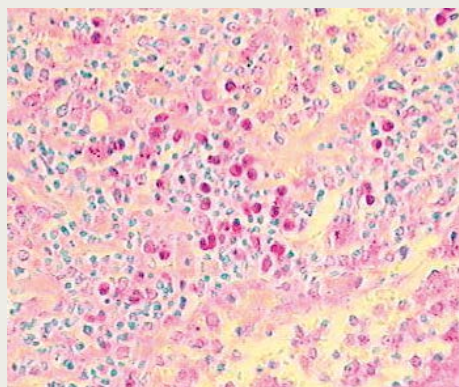
Preferred method for connective tissue, especially recommended for staining collagen fibres distinguishing them from the connective tissue.

Number of test	100
Procedure time	35 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

### Result

Nuclei	black
Collagen fibers	purplish red
Cytoplasm, smooth and striated muscle, cornified epithelium, neuroglia and erythrocytes	yellow

## Methyl green pyronin



PRODUCT AND APPLICATION

CODE

- **Methyl green pyronin** 04-121812

Method recommended for simultaneously staining DNA and RNA in histological sections. Especially suitable for staining plasma cells and RNA in histological sections and cytological preparations.

Number of test	100
Procedure time	45 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

### Result

DNA	pale green
RNA	pink to red
Mastzellen granules	blue
Background	turquoise

## PRODUCT AND APPLICATION

## CODE

### ● Verhoeff 04-056802

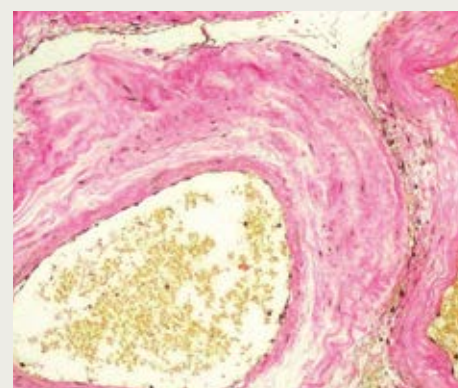
Method for staining elastic fibres in sections. Especially recommended for vascular pathology.

Number of test	100
Procedure time	1 h
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Elastic fibers and nuclei	black
Collagen	red
Other tissutal elements	yellow

## Verhoeff



## PRODUCT AND APPLICATION

## CODE

### ● Von Kossa method for calcium 04-170801

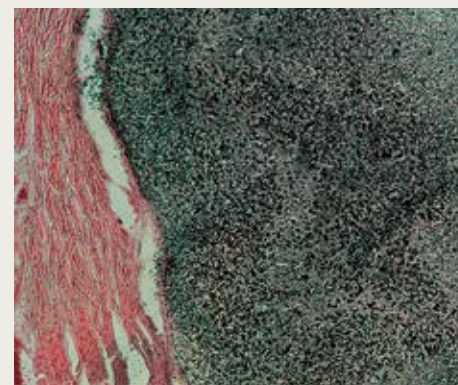
Method recommended for staining calcium ions in histological sections.

Number of test	100
Procedure time	1 h 25 minutes
Product validity	1 year
Storage temperature	2 - 8 °C

#### Result

Sites calcium deposits	black
Nuclei	red

## Von Kossa



## PRODUCT AND APPLICATION

## CODE

### ● Warthin-Starry method for spirochetes 04-040903

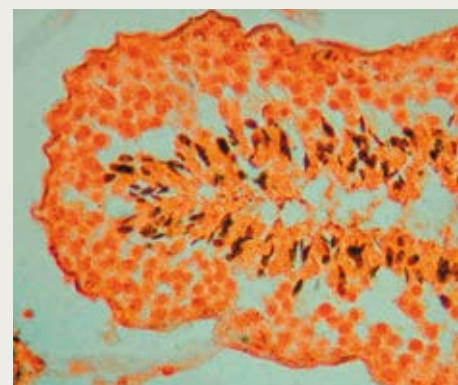
Method for spirochete staining.

Number of test	40
Procedure time	1 h 45 minutes
Product validity	1 year
Storage temperature	darkness, 2 - 8 °C

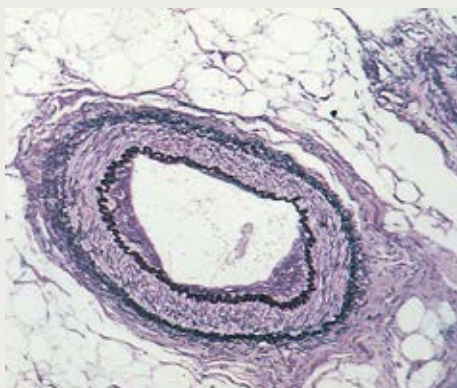
#### Result

Spirochetes and other microorganisms	black
Background	golden brown

## Warthin-Starry



## Weigert



### PRODUCT AND APPLICATION

### CODE

#### ● Weigert for elastic fibers (long method)

04-050802

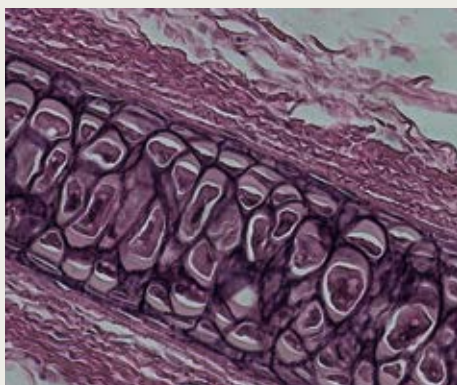
Method for staining elastic fibers in histological sections.

Number of test	100
Procedure time	Overnight + 25 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Elastic fibers	from dark blue to black
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## Weigert



### PRODUCT AND APPLICATION

### CODE

#### ● Weigert for elastic fibers (quick method)

04-052812

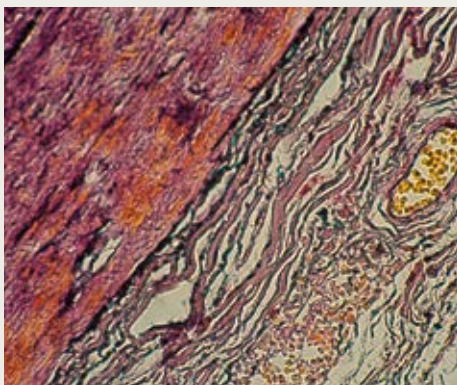
Method for staining elastic fibers in histological sections, especially suitable for vascular pathology.

Number of test	100
Procedure time	60 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Elastic fibers	purplish red-brown
Nuclei	red

## Weigert Van Gieson



### PRODUCT AND APPLICATION

### CODE

#### ● Weigert Van Gieson for elastic fibres and connective tissue (long method)

04-051802

Method used for simultaneously staining elastic fibres, connective tissue, collagen and nuclei. Recommended for vascular pathology.

Number of test	100
Procedure time	50 minutes + overnight
Product validity	2 years
Storage temperature	15 - 25 °C

#### Result

Elastic fibers	from dark blue to black
Nuclei	black
Collagen	various shades of red
Connective tissue, erythrocytes	yellow



PRODUCT AND APPLICATION

CODE

● **Weigert Van Gieson for elastic fibers and connective tissue (quick method)**

04-053812

Method used for simultaneously staining elastic fibers, connective tissue, collagen and nuclei. Recommended for vascular pathology.

Number of test	100
Procedure time	1 h 20 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

Elastic fibers	from purplish red to brown
Nuclei	black
Collagen	various shades of red
Connective tissue, erythrocytes	yellow

PRODUCT AND APPLICATION

CODE

● **Wilson's Disease Staining method for copper**

04-182807

for microwave oven

04-182807W

Method recommended for staining copper in tissue sections.

Number of test	100
Procedure time	3 h 15 minutes (15 minutes for microwave oven)
Product validity	2 years
Storage temperature	15 - 25 °C

**Result**

Copper	red, red-orange
Nuclei	blue

PRODUCT AND APPLICATION

CODE

● **Ziehl-Neelsen for mycobacteria**

04-110802

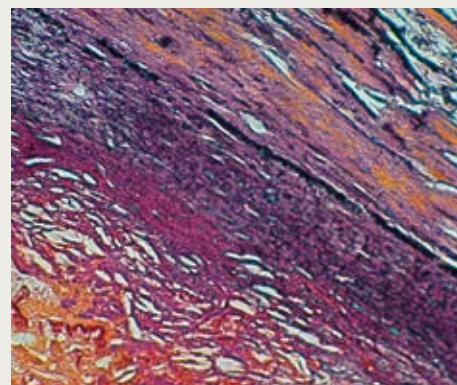
For staining pathogenic mycobacteria, especially for Koch's bacillus, in histology sections, sputum smears, cultures and appositions.

Number of test	100
Procedure time	50 minutes
Product validity	2 years
Storage temperature	15 - 25 °C

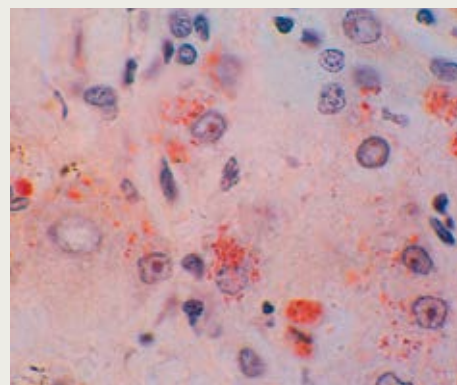
**Result**

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

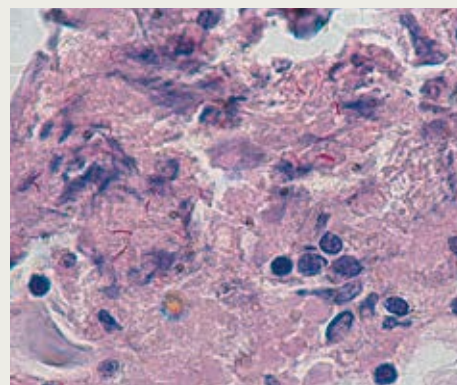
## Weigert Van Gieson



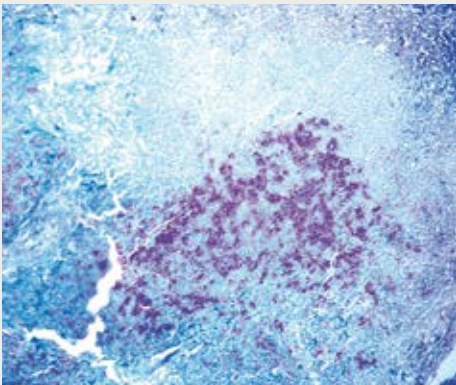
## Wilson's Disease Stain



## Ziehl-Neelsen



Ziehl-Neelsen Fite



PRODUCT AND APPLICATION

CODE

● <b>Ziehl-Neelsen Fite for mycobacteria</b>		04-111802
For staining pathogenic mycobacteria, especially for Koch and Hansen bacillus, in histology sections, sputum smears, cultures and appositions.		
Number of test	100	
Procedure time	45 minutes	
Product validity	2 years	
Storage temperature	15 - 25 °C	
<b>Result</b>		
Koch' s bacillus, Hansen bacillus and other acid resistant elements	red	
Background	blue	





## Kits and solutions for enzyme histochemistry

Microscope examination of muscular biopsy sections is essential for the diagnosis of neuromuscular pathologies.

Any laboratory carrying out enzyme histochemical tests on muscular biopsies faces several problems:

- extremely high toxicity of some reagents
- standardization of difficult and complex solutions
- solution storage at -20°C
- repeatability of results

For finding a solution to all these issues, Bio-Optica has developed ready-to-use kits for enzyme histochemical staining.

Enzyme histochemical kits overcome the difficulties and risks relating to the preparation of staining solutions, ensuring repeatable results.

PRODUCT AND APPLICATION	CODE
<ul style="list-style-type: none"><li>● <b>ATPase</b></li></ul> Muscular biopsies. Cryostat sections with 8 um thickness. Recommended method for typing muscular fibres.	30-30125LY
<b>Result</b>	
Nuclei	blue
<b>10.4 Section – preincubation at pH 10.4</b>	
Type 1 fibers	beige/white
Type 2A fibers	brown/black
Type 2B fibers	brown/black
<b>4.7 Section – preincubation at pH 4.7</b>	
Type 1 fibers	brown
Type 2A fibers	beige/white
Type 2B fibers	brown/black
<b>4.3 Section – preincubation at pH 4.3</b>	
Type 1 fibers	brown
Type 2A fibers	beige/white
Type 2B fibers	beige

PRODUCT AND APPLICATION	CODE
<ul style="list-style-type: none"><li>● <b>Cytochrome C oxidase</b></li></ul> Cytochrome C oxidase activity assay.	30-30115LY
<b>Result</b>	
Cytochrome C Oxidase activity	beige

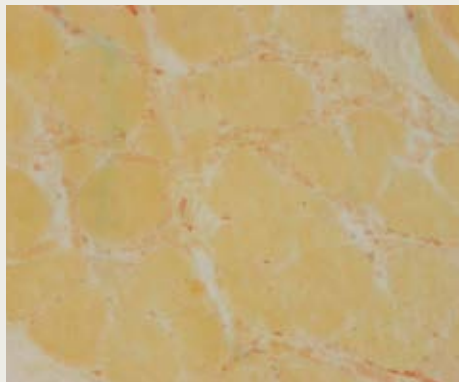
### ATPase



### Cytochrome C Oxidase



## Non-specific Esterase



PRODUCT AND APPLICATION

CODE

### ● Non-specific Esterase

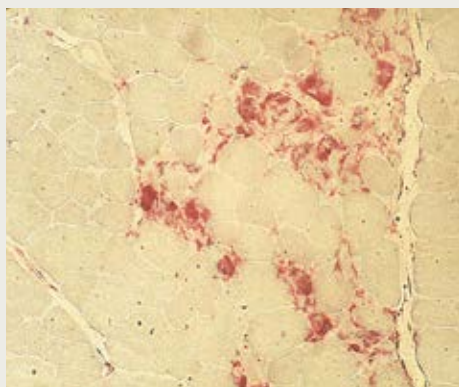
30-30122LY

Staining of esterase positive activity of enzymes in denervated fibres.

#### Result

Angular atrophic fibers	beige
Neuromuscular junction	brown
Lipofuscin	brown
Lysosomal activity	brown

## Acid phosphatase



PRODUCT AND APPLICATION

CODE

### ● Acid phosphatase

30-30118LY

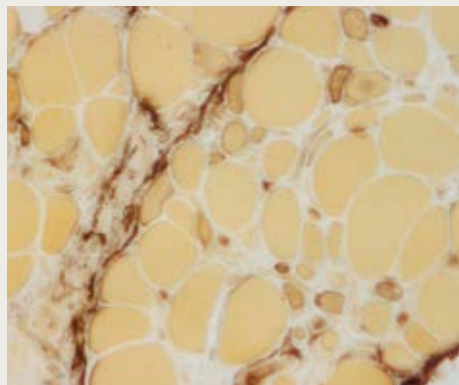
Staining of acid phosphatase enzymatic activity.

It can be found in macrophages and lysosomes; it characterises regeneration and necrosis phenomena.

#### Result

Positive acid phosphatase enzymatic activity	red
Background and nucleus	green

## Alkaline phosphatase



PRODUCT AND APPLICATION

CODE

### ● Alkaline phosphatase

30-30121LY

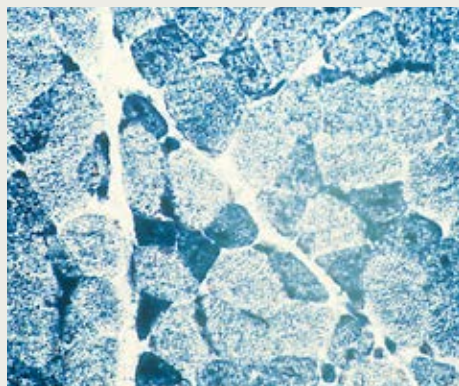
Assessment of alkaline phosphatase enzymatic activity.

It is very useful for identifying phagocytosis and inflammatory areas in muscle biopsies.

#### Result

Positive alkaline phosphatase enzymatic activity	black
Background	ochre yellow

## Phosphofructokinase



PRODUCT AND APPLICATION

CODE

### ● Phosphofructokinase (PKF)

30-30117LY

To show PFK enzymatic activity. This procedure is used to determine if a glycogen-storage disease is due to a lack of PFK activity or about other enzymes necessary for the metabolism of glycogen.

#### Result

Positive PFK activity	dark blue
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PRODUCT AND APPLICATION

CODE

● **Phosphorylase**

30-30123LY

Staining of phosphorylase enzymes involved in glycogenolysis.

**Result**

Phosphorylase enzymes activity      various tones of blue

**Phosphorylase**



PRODUCT AND APPLICATION

CODE

● **Myoadenylate deaminase**

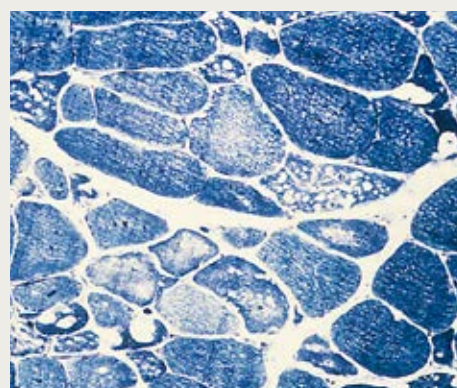
30-30116LY

Staining of the enzymatic activity of myoadenylate deaminase.

**Result**

Positive Myoadenylate deaminase      blue  
enzymatic activity

**Myoadenylate deaminase**



PRODUCT AND APPLICATION

CODE

● **Diaphorase (NADH)**

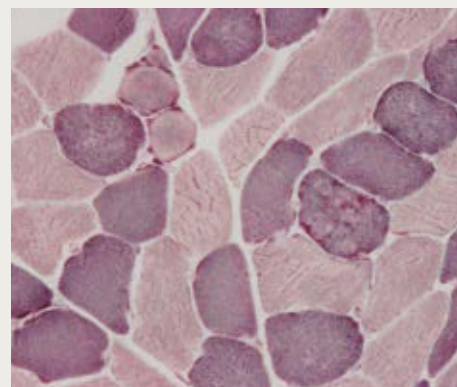
30-30113LY

Assessment of NADH activity. This stain is used to distinguish between type 1 and type 2 muscular fibres, and is often connected to ATPase investigation.

**Result**

Positive NADH diaphorase enzymatic activity	grey-blue
Type 1 fibers	dark blue
Type 2 fibers	light blue

**NADH Diaphorase**



PRODUCT AND APPLICATION

CODE

● **Succinic dehydrogenase**

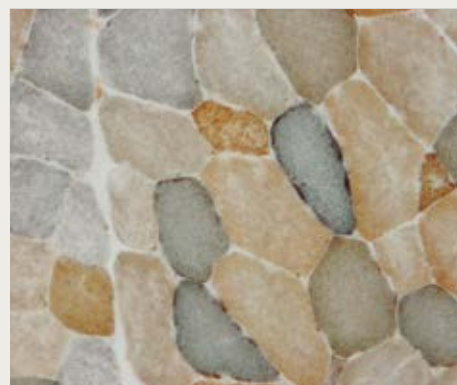
30-30114LY

Assessment of the enzymatic activity of succinic dehydrogenase (SDH), mainly reported in mitochondria.

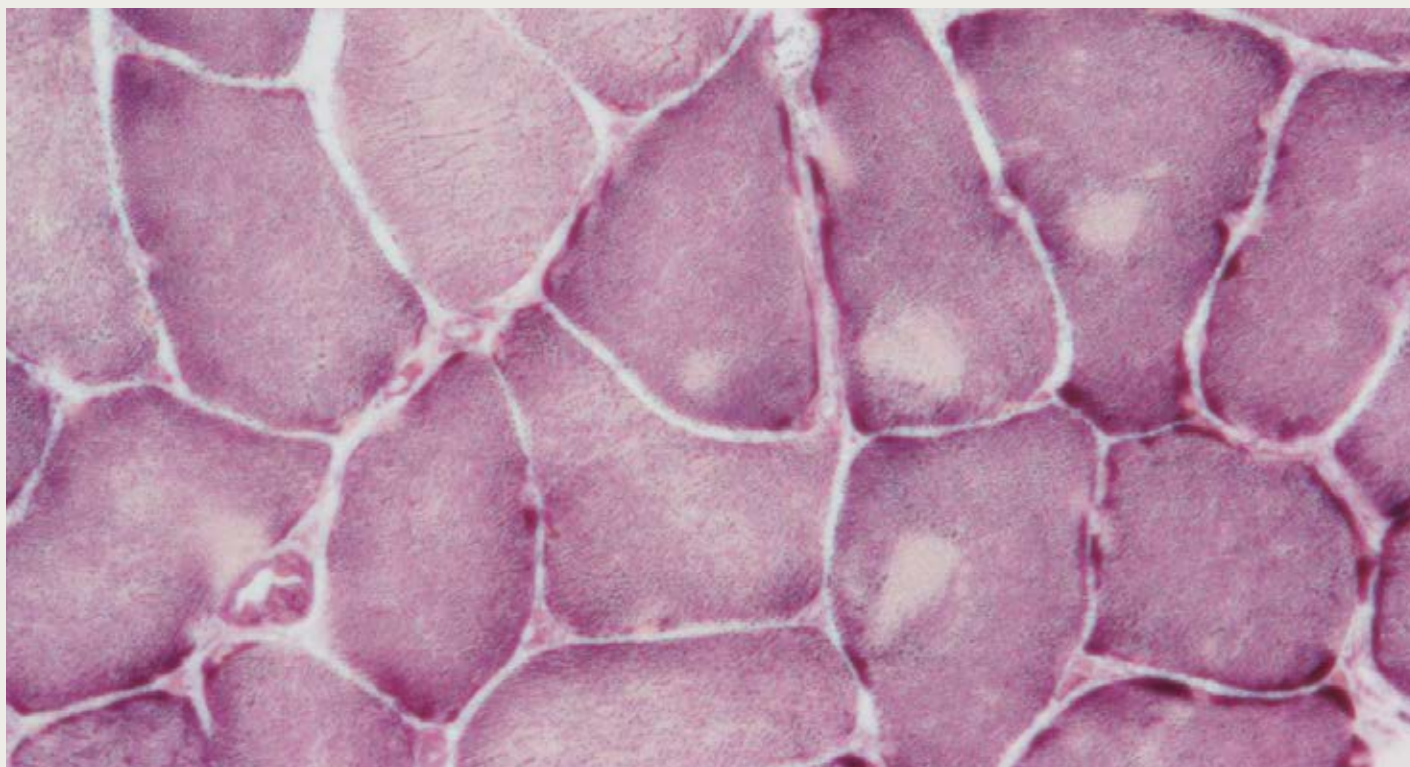
**Result**

Positive SDH activity      grey-blue

**Succinic dehydrogenase**







### Enzyme histochemical kit

This kit includes all enzyme histochemical reactions, for a total of 10 kits.

PACKAGING	CODE
10 Kits	30-30130LY

### Fixatives for enzyme histochemistry

PRODUCT	PACKAGING	DESCRIPTION	CODE
Backer fixative	1x500 ml	For Red Oil O stain	30-30111
Acid phosphatase fixative	1x100 ml	For enzyme histochemical stain with acid phosphatase	30-30120

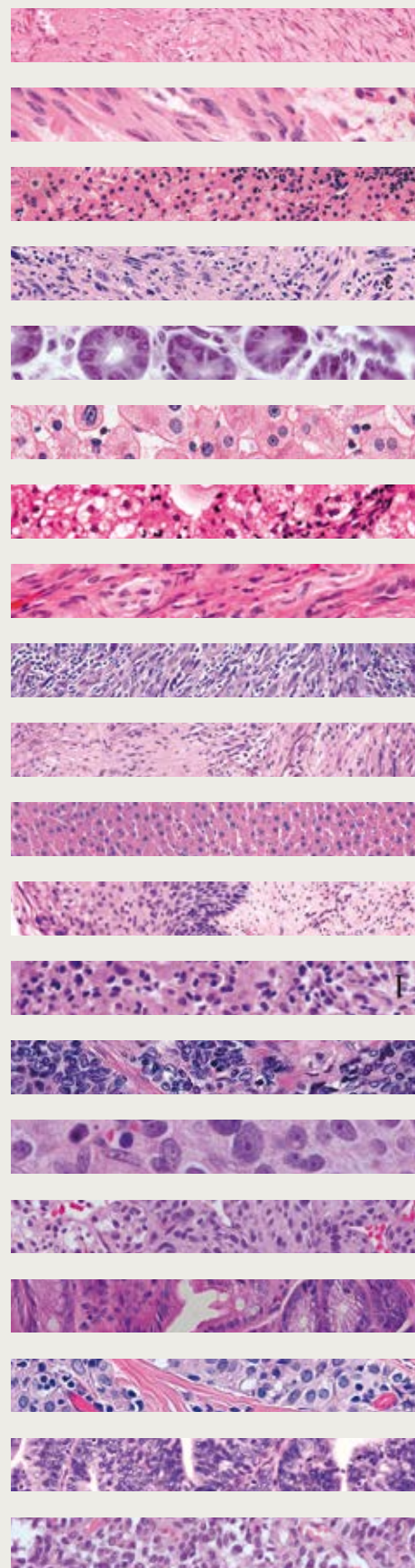
### Staining solutions for enzyme histochemistry

PRODUCT	PACKAGING	DESCRIPTION	CODE
Oil Red O solution	1x100 ml	Specific stain for lipids	30-30112
Methyl green buffered solution	1x100 ml	Nuclear green stain	30-30119
Trichrome stain Gomori	1x100 ml	Differentiating stain of muscle and components of connective tissue	30-30110

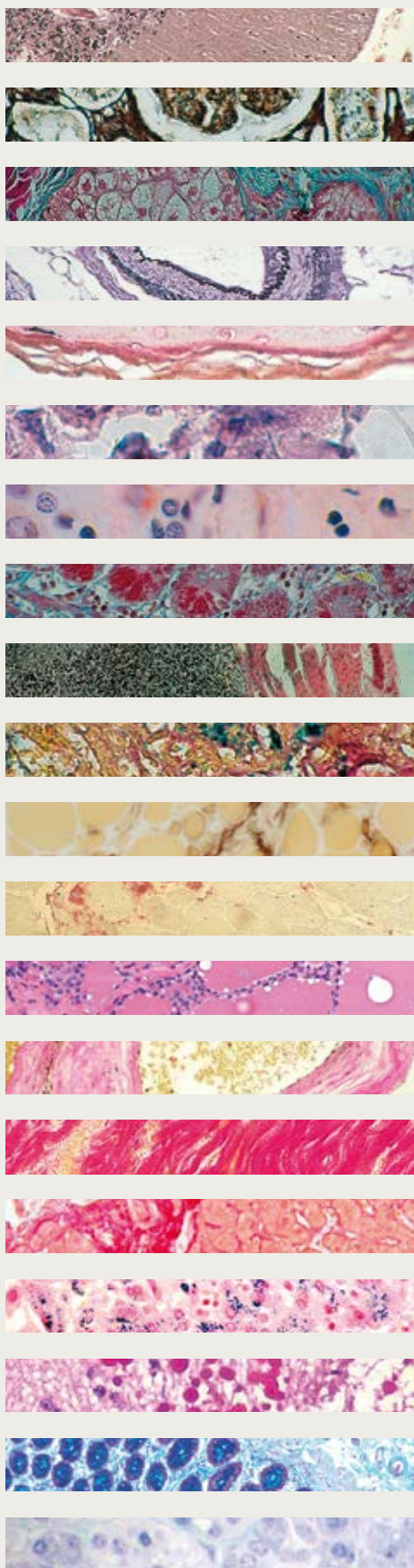
## Hematoxylins

Bio-Optica provides operators with a wide range of nuclear stains; all solutions are stable and guarantee excellent cell details.

PRODUCT AND DESCRIPTION	PACKAGING	CODE
<ul style="list-style-type: none"> <li> <b>Mayer Hemalum</b>  Medium intensity stain </li> </ul>	1x500 ml 1x1 l 1x2,5 l 4x2,5 l	05-M06002 05-06002/L 05-06002E 05-06002Q
<ul style="list-style-type: none"> <li> <b>Harris Hematoxylin for histology</b>  Stain with high concentration of Hematoxylin </li> </ul>	1x500 ml 1x1 l 1x2,5 l 4x2,5 l	05-M06004 05-06004/L 05-06004E 05-06004Q
<ul style="list-style-type: none"> <li> <b>Carazzi Hemalum</b>  Low concentration of Hematoxylin </li> </ul>	1x500 ml 1x1 l	05-M06012 05-06012/L
<ul style="list-style-type: none"> <li> <b>Gill 1 Hematoxylin</b>  Similar to Carazzi Hemalum </li> </ul>	1x500 ml 1x1 l 1x2,5 l 4x2,5 l	05-M06013 05-06013/L 05-06013E 05-06013Q
<ul style="list-style-type: none"> <li> <b>Gill 2 Hematoxylin</b>  Similar to Mayer Hemalum </li> </ul>	1x500 ml 1x1 l 1x2,5 l 4x2,5l	05-M06014 05-06014/L 05-06014E 05-06014Q
<ul style="list-style-type: none"> <li> <b>Gill 3 Hematoxylin</b>  Similar to Harris Hematoxylin for histology </li> </ul>	1x500 ml 1x1 l 1x2,5 l 4x2,5 l	05-M06015 05-06015/L 05-06015E 05-06015Q
<ul style="list-style-type: none"> <li> <b>Weigert iron hematoxylin solution A</b>  For trichrome stains </li> </ul>	1x150 ml 1x1 l	05-B06008/A 05-06008A/L
<ul style="list-style-type: none"> <li> <b>Weigert iron hematoxylin solution B</b>  For trichrome stains </li> </ul>	1x150 ml 1x1 l	05-B06008/B 05-06008B/L
<ul style="list-style-type: none"> <li> <b>P.T.A.H. - Phosphotungstic hematoxylin</b>  Reagent for detection of neuroglia and muscular tissue </li> </ul>	1x150 ml 1x1 l	05-B10017 05-10017/L
<ul style="list-style-type: none"> <li> <b>Delafied Hematoxylin</b>  Specific for vegetal tissue </li> </ul>	1x150 ml	05-B06006
<ul style="list-style-type: none"> <li> <b>Heidenhain Hematoxylin</b>  For cellular details </li> </ul>	1x150 ml	05-B06010
<ul style="list-style-type: none"> <li> <b>Regaud Hematoxylin</b>  For studies of nuclear morphology </li> </ul>	1x150 ml 1x500 ml	05-B06007 05-M06007







## Solutions for histology

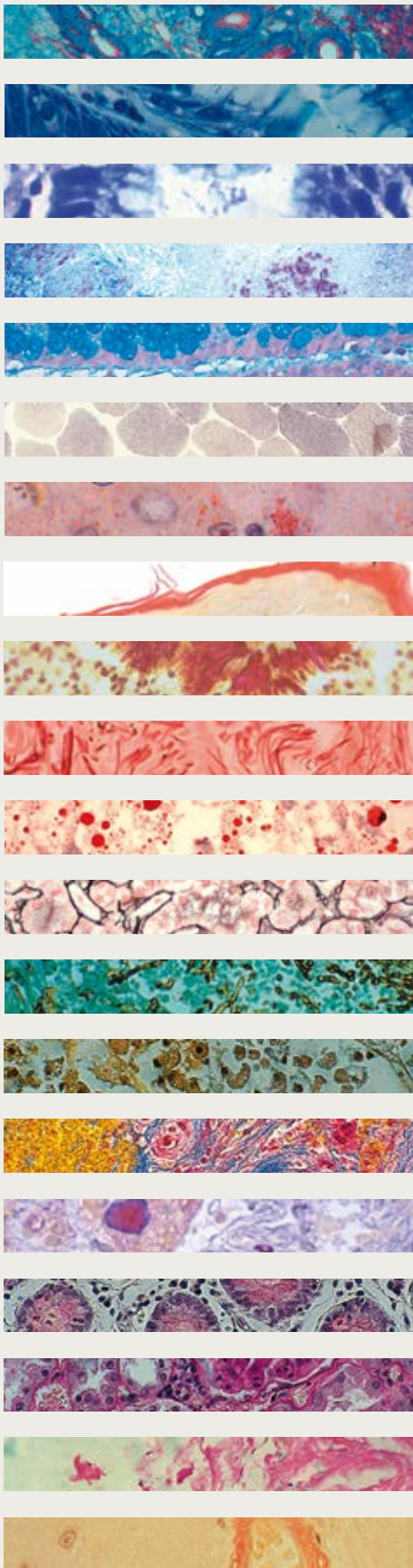
Recently, laboratories have been increasing the use of ready-to-use staining solutions. Besides providing significant functional benefits (safety, time saving, work load reduction, simplified test cost assessment), the ready-to-use solutions by Bio-Optica also allow labs to obtain excellent and repeatable results, which is essential for meeting the needs of high quality standards.

PRODUCT AND DESCRIPTION	PACKAGING	CODE
● <b>Alcian Blue pH 0,5 Mowry</b> To demonstrate only strongly sulfured mucins	1x500 ml	05-M26006
● <b>Alcian Blue pH 1 Mowry</b> To demonstrate only strongly sulfured mucins	1x150 ml 1x500 ml	05-B26005 05-M26005
● <b>Alcian Blue pH 2,5 Mowry</b> For evidencing acid mucopolysaccharides	1x150 ml 1x500 ml	05-B26003 05-M26003
	1x1 l	05-26003/L
● <b>Alcian Blue pH 3.1 Mowry</b> For evidencing acid mucopolysaccharides	1x150 ml 1x500 ml	05-B26002 05-M26002
● <b>Acridine Orange solution</b> Detects microorganisms	1x150 ml	05-B07013
● <b>Orange G solution Pearse</b> To show alpha and beta cells of the hypophysis	1x150 ml	05-B29003
● <b>Auramine-Phenol</b> Detection of Cryptosporidium oocysts	1x150 ml	05-B07016
● <b>Auramine-Rhodamine solution</b> Detection of mycobacteria	1x150 ml	05-B07014
● <b>Azocarmine Heidenhain</b> Nuclear stain for the Azan method	1x150 ml	05-B07001
● <b>Astra Blue pH 2.5</b> For evidencing acid mucopolysaccharides	1x150 ml	05-B26012
● <b>Aniline blue Masson</b> For collagen, mucus, basophil granules of hypophysis and delta cells granules of hypophysis	1x150 ml	05-B10006
● <b>Aniline blue - Orange G Heidenhain</b> Polychrome solution for Azan trichrome staining	1x150 ml	05-B10001
● <b>Aniline Blue - Orange G Mallory</b> for a selective collagen staining by aniline blue and for evidencing cytoplasm by Orange G	1x150 ml	05-B10009
● <b>Brilliant Cresyl Blue</b> Vital stain for reticulocyte counts	1x150 ml	05-B14002
● <b>Lactophenol Cotton Blue</b> For detection of fungi	1x150 ml	05-B14004
● <b>New Methylene Blue</b> Identification of reticulocyte and parasites	1x150 ml	05-B14003
● <b>Methylene Blue Loeffler</b> Counterstain for acid fast bacteria	1x150 ml 1x500 ml 1x1 l	05-B20009 05-M20009 05-20009/L
● <b>Methylene Blue solution - Ziehl Neelsen</b> Counterstain used in the Ziehl Neelsen method	1x150 ml 1x500 ml 1x1 l	05-B20003 05-M20003 05-20003/L
● <b>Toluidine blue O</b> Metachromatic staining of acid substances	1x150 ml 1x500 ml	05-B23001 05-M23001

PRODUCT AND DESCRIPTION	PACKAGING	CODE
● <b>Mayer's carmalum</b> For nuclear staining	1x150 ml	05-B07009
● <b>Acetic carmine solution</b> For chromosome staining	1x150 ml	05-B13001
● <b>Cresyl violet Klüver Barrera</b> For evidencing neurons and glial nuclei	1x150 ml 1x1 l	05-B16001 05-16001/L
● <b>Cresyl Violet Moore</b> For staining of sexual chromatin	1x150 ml	05-B14001
● <b>Cresyl Violet Vogt</b> For PAS-positive substance in nervous tissue	1x150 ml	05-B16002
● <b>Crystal violet solution Gram</b> For Gram-positive bacteria	1x150 ml	05-B20005
● <b>Metachromatic Crystal Violet</b> Stain for amyloid	1x150 ml	05-B31001
● <b>Eosin Y 1% aqueous solution</b> For cytoplasm staining	1x500 ml 1x1 l 1x2,5 l 4x2,5 l	05-M10002 05-10002/L 05-10002E 05-10002Q
● <b>Eosin Y alcoholic solution</b> For cytoplasm staining	1x150 ml 1x500 ml 1x1 l 1x2,5 l 4x2,5 l	05-B10003 05-M10003 05-10003/L 05-10003E 05-10003Q
● <b>Eosin Y plus alcoholic solution</b> For cytoplasm staining	1x150 ml 1x500 ml 1x1 l	05-B11007 05-M11007 05-11007/L
● <b>Eosin-Phloxine alcoholic solution</b> For cytoplasm staining	1x150 ml 1x500 ml 1x1 l	05-B10020 05-M10020 05-10020/L
● <b>Erythrosine B Orange G Dominici</b> For cytoplasm and connective staining	1x150 ml 1x500 ml	05-B12003 05-M12003
● <b>Phloxin B Gram</b> For Gram-negative bacteria	1x150 ml	05-B20004
● <b>Basic Fuchsin solution</b> Counterstain for Gram procedure	1x150 ml 1x500 ml 1x1 l	05-B07012 05-M07012 05-07012/L
● <b>Basic Fuchsin Coleman</b> For evidencing fungi	1x150 ml	05-B21001
● <b>Carbol Fuchsin - Ziehl Neelsen</b> For evidencing of acid resistant bacteria	1x150 ml 1x500 ml 1x1 l	05-B20007 05-M20007 05-20007/L
● <b>Basic Fuchsin Gomori</b> For elastic fibers and secretion granules in alpha and beta cells of pancreas	1x150 ml	05-B11005
● <b>Paraldehyde Fuchsin Gridley</b> For evidencing fungi	1x150 ml	05-B21002
● <b>Ponceau Masson fuchsin</b> For cytoplasm, keratin, muscle fibers	1x150 ml 1x1 l	05-B10005 05-10005/L
● <b>Metanil yellow solution</b> Counterstain in Mucicarmine method	1x150 ml	05-B21003







## PRODUCT AND DESCRIPTION

## PACKAGING

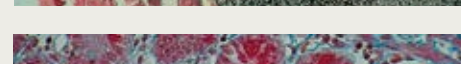
## CODE

● <b>Giemsa Pappenheim</b> Used with May Grünwald for the staining of different kind of cells in blood and bone marrow smears	1x500 ml 1x1 l 1x2,5 l	05-M12005 05-12005/L 05-12005E
● <b>Kovac's Reagent</b> For identification of the indole	1x150 ml	05-B09002
● <b>Luxol Fast Blue Kluwer Barrera</b> For myelin	1x150 ml 1x500 ml	05-B18001 05-M18001
● <b>May Grünwald Pappenheim</b> Used with Giemsa for the staining of different kind of cells in blood and bone marrow smears	1x500 ml 1x1 l 1x2,5 l 4x2,5 l	05-M12002 05-12002/L 05-12002E 05-12002Q
● <b>Mucicarmine</b> For acid mucopolysaccharides	1x150 ml	05-B26001
● <b>Nuclear Fast Red</b> Nuclear red stain	1x150 ml 1x500 ml	05-B07006 05-M07006
● <b>Acetic orcein solution</b> For chromosome staining	1x150 ml	05-B13002
● <b>Acid orcein Shikata</b> For elastic fiber staining	1x150 ml	05-B11001
● <b>Picrofuchsin Van Gieson</b> Excellent to differentiate collagen from connective fibers	1x150 ml 1x500 ml 1x1 l	05-B10012 05-M10012 05-10012/L
● <b>Picro indigo carmine</b> For connective tissue and erythrocytes	1x150 ml	05-B10011
● <b>Picro Mallory Aniline Blue</b> For connective tissue and erythrocytes	1x150 ml	05-B10016
● <b>Picro Mallory - Orange G</b> For erythrocytes	1x150 ml	05-B10015
● <b>Picro Mallory - Acid Fuchsin</b> For cytoplasm	1x150 ml	05-B10014
● <b>Schiff reagent Feulgen</b> DNA staining	1x500 ml	05-M07007
● <b>Schiff reagent Hotchkiss McManus</b> For tissue components characterized by adjacent glycolic or aminohydroxylic groups	1x500 ml	05-M20001
● <b>Sirius Red Puchtler</b> For amyloid	1x150 ml	05-B31007
● <b>Congo red Highman</b> For amyloid	1x150 ml	05-B31003
● <b>Congo red Puchtler</b> For amyloid	1x150 ml	05-B31004
● <b>Safranin solution</b> Contrast for Gram staining	1x150 ml 1x500 ml 1x1 l	05-B07008 05-M07008 05-07008/L
● <b>Sudan III Herxheimer</b> For lipids stain	1x150 ml	05-B27001
● <b>Sudan black</b> For lipids stain	1x150 ml	05-B27002

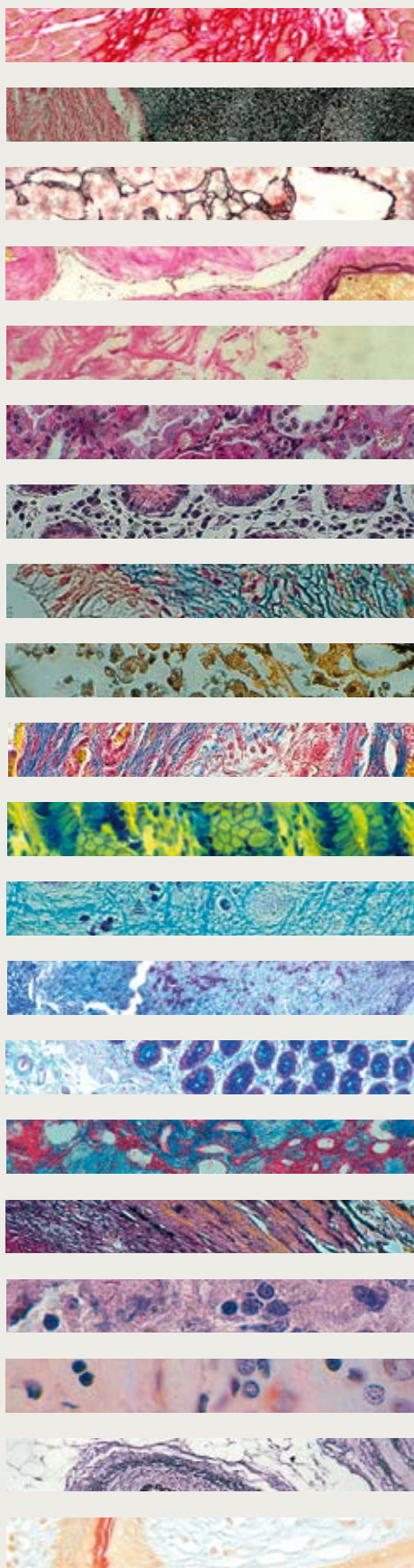
PRODUCT AND DESCRIPTION	PACKAGING	CODE
● <b>Turk solution</b> For leukocyte manual counting	1x150 ml 1x500 ml	05-B25001 05-M25001
● <b>Light green Goldner</b> For collagen, basophil granules of hypophysis and delta cells of hypophysis	1x150 ml 1x500 ml	05-B10008 05-M10008
● <b>Light green Grocott</b> Used as background stain in the Grocott method	1x150 ml	05-B21004
● <b>Malachite Green solution</b> Counterstain in Ziehl Neelsen staining	1x150 ml 1x500 ml 1x1 l	05-B07011 05-M07011 05-07011/L
● <b>Methyl green pyronin</b> To evidence simultaneously DNA and RNA	1x150 ml	05-B15003
● <b>Methyl green purified</b> Nuclear staining	1x150 ml	05-B08001
● <b>Weigert slow stain Pearse</b> For detection of elastic fibers	1x150 ml	05-B11004
● <b>Weigert rapid stain – Fuchsin resorcinol solution</b> For detection of elastic fibers	1x150 ml 1x1 l	05-B11003 05-11003/L

## Reagents

PRODUCT AND DESCRIPTION	PACKAGING	CODE
● <b>Acetic acid 5%</b> Differentiating agent	1x500 ml	05-M27030
● <b>Hydrochloric acid Hotchkiss McManus</b> Differentiating agent for P.A.S. staining	1x500 ml	05-M05001
● <b>Formic acid 20%</b> Lab reagent	1x500 ml	05-M27031
● <b>Phosphomolybdic acid Mallory</b> Differentiating agent for Mallory staining	1x500 ml	05-M05004
● <b>Phosphomolybdic acid Masson</b> Differentiating agent for Masson trichrome	1x500 ml	05-M05003
● <b>Phosphotungstic acid Heidenhain</b> Mordant for Azan trichromatic staining	1x500 ml	05-M05005
● <b>Oxalic acid Mallory</b> Decolorizing solution	1x500 ml	05-M05006
● <b>Periodic acid 1%</b> Oxidant in PAS method	1x500 ml 1x1 l	05-M05030 05-05030/L







PRODUCT AND DESCRIPTION	PACKAGING	CODE
● <b>Picric acid aqueous 1.2% solution</b> For fixative mixtures	1x500 ml	05-M05027
● <b>Picric acid alcoholic solution</b> For erythrocytes in trichrome stainings	1x500 ml	05-M05022
● <b>Sulphuric acid 0,5 %</b> For oxidation reaction with potassium permanganate	1x500 ml 1x150 ml	05-M05007 05-B05007
● <b>Scott water</b> Colour change solution for hematoxylin	1x500 ml	05-M05023
● <b>Albumin Mallory</b> For the preparation of coated slides	1x150 ml 1x500 ml	05-B04002 05-M04002
● <b>Aniline Alcohol Heidenhain</b> Differentiating solution in Azan method	1x500 ml	05-M05010
● <b>Alcohol-Borax Mowry</b> For acid mucopolysaccharides	1x150 ml 1x500 ml	05-B05011 05-M05011
● <b>Gelatine</b> Section adhesive for floating sections bath	1x150 ml	05-B04001
● <b>Gelatine adhesive for slides</b> Histological sections adhesive	1x150 ml	05-B04004
● <b>Acid Ethanol Heidenhain</b> For arresting differentiation in Azan method	1x500 ml	05-M05009
● <b>Acid Ethanol Weigert</b> Differentiating solution in Weigert method	1x500 ml	05-M05014
● <b>Acid Ethanol Ziehl-Neelsen</b> Decolorizing solution used in the Ziehl Neelsen method	1x500 ml 1x1 l	05-M05012 05-05012/L
● <b>Lithium carbonate solution</b> For hematoxylin colour change	1x500 ml	05-M05016
● <b>Lugol solution</b> Chelating solution for mercury	1x500 ml 1x1 l	05-M05015 05-05015/L
● <b>Gold chloride 1%</b> For staining of silver ion	1x150 ml	05-B04020
● <b>Potassium metabisulfite 0.5% solution</b> Differentiating solution for P.A.S. reaction	1x500 ml	05-M05017
● <b>Potassium permanganate 0.5% solution</b> Oxidant agent	1x500 ml	05-M05018
● <b>Sodium thiosulfate 5% solution</b> Decolorizing solution	1x500 ml 1x1 l	05-M05019 05-05019/L
● <b>Gram's decolorizing solution</b> Decolorizing solution	1x500 ml 1x1 l	05-M30010 05-30010/L
● <b>Gram's decolorizing solution with isopropyl alcohol</b> Decolorizing solution	1x1 l	05-30009/L
● <b>Koch's decolorizing solution</b> Decolorizing solution	1x1 l	05-30008/L
● <b>Gram's iodine solution</b> Mordant solution	1x150 ml 1x1 l	05-B20006 05-20006/L
● <b>Acetate buffer Lennert</b> Buffer used in May Gruenwald-Giemsa staining	1x500 ml	05-M05020
● <b>Phosphate Buffer pH 7 10X</b> Concentrate buffer pH 7	1x1 l 10x100 ml	05-05029/L 05-05029/10
● <b>Decolorizing solution Ziehl Neelsen</b> Decolorizing solution	1x500 ml 1x1 l	05-M05112 05-05112/L

COVERGLASSING

Coverslips

High quality cleaned and degreased coverslips; cellophane wrapped and free from dust, dirt and cracks

SIZE	PACKAGING	CODE
18 x 18 mm	1.000 pcs	09-01818
18 x 24 mm	1.000 pcs	09-01824
20 x 20 mm	1.000 pcs	09-02020
21 x 26 mm	1.000 pcs	09-02126
22 x 22 mm	1.000 pcs	09-02222
22 x 32 mm	1.000 pcs	09-02232
22 x 40 mm	1.000 pcs	09-02240
22 x 50 mm	1.000 pcs	09-02250
24 x 24 mm	1.000 pcs	09-02424
24 x 32 mm	1.000 pcs	09-02432
24 x 40 mm	1.000 pcs	09-02440
24 x 50 mm	1.000 pcs	09-02450
24 x 60 mm	1.000 pcs	09-02460
50 x 65 mm	1.000 pcs	09-05065

Coverslips suitable for automated coverslipper

Coverslips combining high quality standard with strict dimensional inspection, guaranteeing best performance on the automated coverslippers currently on the market.

SIZE/THICKNESS	PACKAGING	COVERSLIPPING MACHINE	CODE
24 x 40 mm / 0,13 ÷ 0,16 mm	1.000 pcs	Microm, Medite, Leica	09-02440CS
24 x 50 mm / 0,13 ÷ 0,16 mm	1.000 pcs	Microm, Medite, Leica	09-02450CS
24 x 60 mm / 0,13 ÷ 0,16 mm	1.000 pcs	Microm, Medite, Leica	09-02460CS
24 x 40 mm / 0,13 ÷ 0,16 mm	1.000 pcs	Thermo	09-02440CSH
24 x 50 mm / 0,13 ÷ 0,16 mm	1.000 pcs	Thermo	09-02450CSH
24 x 60 mm / 0,13 ÷ 0,16 mm	1.000 pcs	Thermo	09-02460CSH
24 x 40 mm / 0,16 ÷ 0,19 mm	1.000 pcs	Thermo	09-02440CSX
24 x 50 mm / 0,16 ÷ 0,19 mm	1.000 pcs	Thermo	09-02450CSX
24 x 60 mm / 0,16 ÷ 0,19 mm	1.000 pcs	Thermo	09-02460CSX



Mounting media



Mount-Quick Tube

Synthetic mounting medium, dissolved in xylene. Packaging: tube.

PACKAGING	CODE
1X50 ml	08-1741



Mount Quick Aqueous

Synthetic mounting medium, dissolved in water. To be used when dehydration may cause the loss of stain characteristics.  
Compatible with hematoxylin and eosin.

PACKAGING	CODE
9x30 ml	05-1740



Buffered glycerin

Water soluble mounting medium for enzyme histochemical staining.

PACKAGING	CODE
1x150 ml	05-B02003



Immersion oil for microscope

A-type oil for microscope.

PACKAGING	CODE
1x30 ml	08-1730/A30
9x30 ml	08-1730/A270

**BioMount HM**

Synthetic mounting medium, dissolved in xylene, especially suitable for automated coverslippers.

PACKAGING	CODE
1x100 ml	05-BMHM100
10x100 ml	05-BMHM110
1x250 ml	05-BMHM250
8x250 ml	05-BMHM258
1x500 ml	05-BMHM500
8x500 ml	05-BMHM508

**SafeMount**

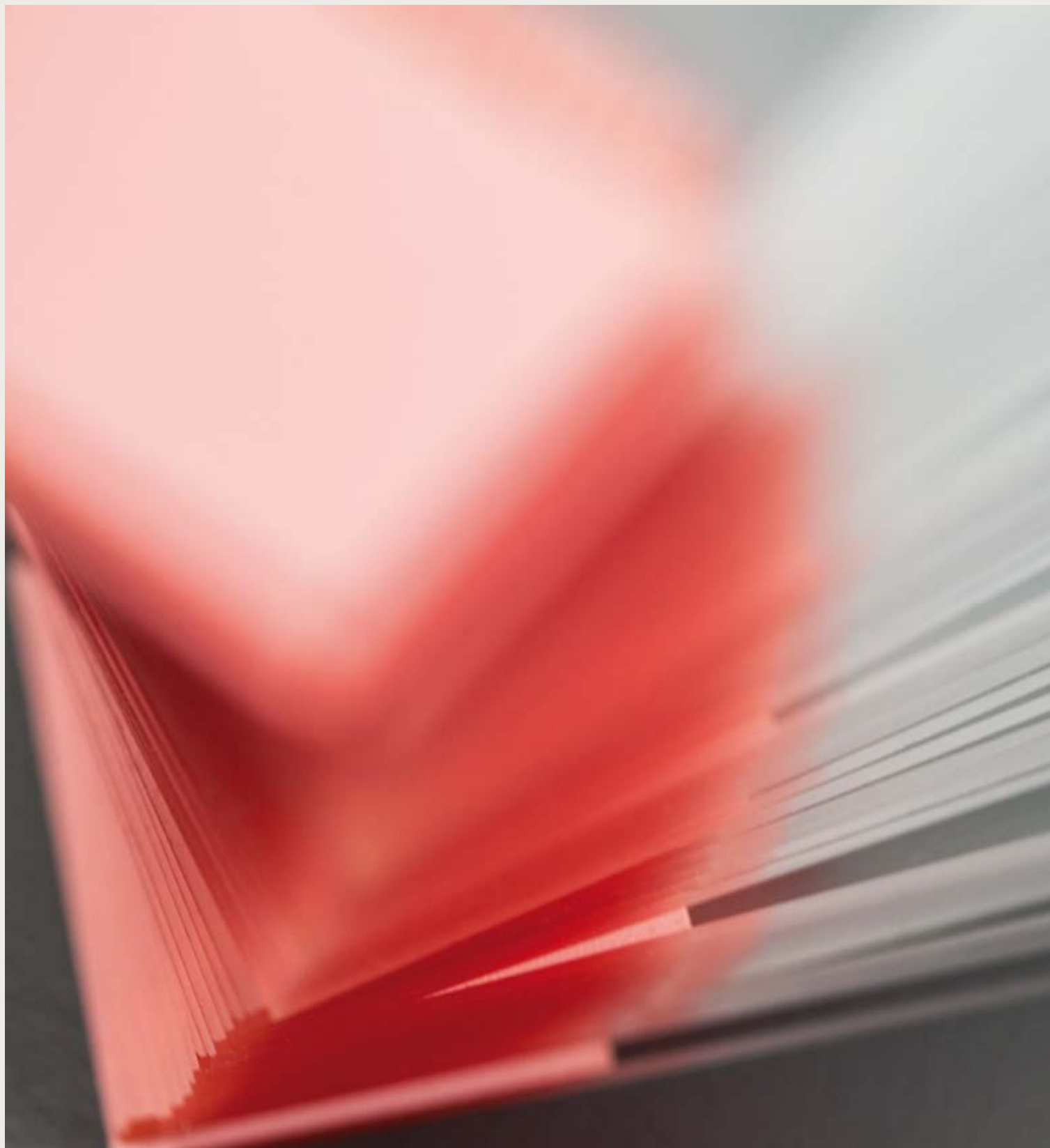
Synthetic mounting medium, dissolved in d-limonene, especially suitable for automated coverslippers.

PACKAGING	CODE
1x100 ml	05-SM100
10x100 ml	05-SM110
1x250 ml	05-SM250
8x250 ml	05-SM258
1x500 ml	05-SM500
8x500 ml	05-SM508





# Bio - Optica





## Cytology

Cytocentrifuges

**[\\_p. 82](#)**

Fixatives

**[\\_p. 83](#)**

Cytological collection

**[\\_p. 84](#)**

Staining solutions and kit

**[\\_p. 85](#)**

CYTO-CENTRIFUGE

PRO-Cyt Cyto-centrifuge

PRO-Cyt is a compact and basic cyto-centrifuge, perfect for cell thin layers. It can centrifuge 4, 8 or 12 specimens at a time, depending on the model. Ensures excellent results, thanks to the extremely accurate morphological details. PRO-Cyt cyto-centrifuge is perfect for the cytological specimens below:

- Pleural fluids
- Bronchial washing
- Fine needle aspiration
- Synovial fluids
- Sputa
- Peritoneal fluids
- Bone marrow
- Pericardial fluids
- Urine
- Cerebrospinal fluids

Featuring removable and autoclavable rotor  
Two versions available:

- With touch screen control panel and possibility to store 10 programmes.
- With LED display



<b>Features</b>	
Dimension:	330 x 460 x 270 mm (w x d x h)
Weight:	16,5 Kg
<hr/>	
PRODUCT	CODE
4 samples - with LCD touch screen control panel	4420-LCD
8 samples - with LCD touch screen control panel	4430-LCD
12 samples - with LCD touch screen control panel	4460-LCD
4 samples - with LED display	4420-LED
8 samples - with LED display	4430-LED
12 samples - with LED display	4460-LED
Dual Cyto cuvette - high absorption	14-070
Dual Cyto cuvette - low absorption	14-080
Stainless steel clip	14-CLIP

FIXATIVES

PRODUCT AND DESCRIPTION	PACKAGING	CODE
● <b>Cy-Fix</b> Fixative for monolayer cytology	54x25 ml 1x1 l 54x25 ml (colourless)	05-01C50P 05-01C50L 05-01C50PN
● <b>Cy-Fix M</b> Fixative for samples with abundant mucus	54x25 ml 1x1 l	05-01C51P 05-01C51L
● <b>Bio-fix</b> Spray fixative for vaginal cytology	4x200 ml 24x200 ml	05-X200 05-X200/CO
● <b>Saccomanno fixative</b> Fixative for samples with abundant mucus	1x1 l 54x18 ml	05-01043/L 05-01043V30P
● <b>SaveCyt-U</b> Urine fixative - blue colour	40 ml - 24 vial in 8 Transport bags 40 ml - 90 vial in 30 boxes 20 ml - 108 Falcon in 36 boxes 20 ml - 48 Falcon 20 ml - 48 Falcon x 6 plateau 20 ml - 60 Falcon in Transport bag	05-CS7212 05-CS7213 05-CS7214 05-CS7216 05-CS7216-X6 05-CS7218
● <b>SaveCyt-UN</b> Urine fixative - colourless	20 ml - 108 Falcon in 36 boxes 20 ml - 48 Falcon 20 ml - 48 Falcon x 6 plateau 20 ml - 60 Falcon x Transport bag	05-CS7215 05-CS7217 05-CS7217-X6 05-CS7219





## CYTOLOGICAL COLLECTION



### Bio Brush

Brush for cytological sampling, with soft nylon bristles tied with a stainless steel wire.

LENGHT	PACKAGING	CODE
19 cm	9 pack of 20 pcs	14-360
19 cm	500 pcs	14-365
19 cm	108 pack of 20 pcs	14-370
19 cm	500 pcs (sterile)	14-365S



### Cervical spatulas

Spatulas for cytological sampling, without sharp edges. Perfect for drawing samples even from tongue and throat - 17,5 cm long.

PRODUCT	PACKAGING	CODE
Wooden Ayre	400 pcs	14-300
Wooden Ayre	200 pcs (sterile)	14-300S
Wooden Ayre modified	200 pcs (sterile)	14-310
Plastic Ayre	100 pcs	14-320
Benoit standard	200 pcs	14-340



### Dual cyto cuvette

Double chambered cuvette for cyto-centrifuge.

PRODUCT	PACKAGING	CODE
Medium absorption	500pcs	14-080
High absorption	500 pcs	14-070
Medium absorption	3x216 pcs	14-081
High absorption	3x216 pcs	14-071



### Filters for cytology

Polycarbonate (PCTE) membrane, free from impurities; perfect for filtering urine and cytological samples.

POROSITY	SIZE	PACKAGING	CODE
3 µm	Ø 13 mm	100 pcs	14-10565
3 µm	Ø 25 mm	100 pcs	14-11065
3 µm	Ø 47 mm	100 pcs	14-13065
3 µm	19 x 42 mm	100 pcs	14-10365
5 µm	Ø 13 mm	100 pcs	14-10568
5 µm	Ø 25 mm	100 pcs	14-11068
5 µm	Ø 47 mm	100 pcs	14-13068
5 µm	19 x 42 mm	100 pcs	14-10368
8 µm	Ø 13 mm	100 pcs	14-10573
8 µm	Ø 25 mm	100 pcs	14-11073
8 µm	Ø 47 mm	100 pcs	14-13073
8 µm	19 x 42 mm	100 pcs	14-10373

## Bio-Agar for embedded cytological specimens

Aqueous gel for cytological specimens embedding: during processing cells are soaked and retained. Extremely useful for processing centrifuged cells and fragile or small sized biopsy specimens. Few Bio-Agar drops are enough to ensure that solvents will penetrate the specimen, without the latter coming out of the gel.

PRODUCT	CODE
15x10 ml	05-9803S



## STAINING SOLUTIONS AND KITS

### Staining solutions for Papanicolaou method

Fast staining process, bright colours and excellent cell details.

**Methanol free solutions.**

PRODUCT	PACKAGING	CODE
● <b>Papanicolaou Harris Hematoxylin</b>	1x500 ml	05-12011
	1x1 l	05-12011/L
	1x2,5 l	05-12011E
	4x2,5 l	05-12011Q
● <b>Papanicolaou OG6</b>	1x500 ml	05-12013
	1x1 l	05-12013/L
	1x2,5 l	05-12013E
	4x2,5 l	05-12013Q
● <b>Papanicolaou EA50</b>	1x500 ml	05-12019
	1x1 l	05-12019/L
	1x2,5 l	05-12019E
	4x2,5 l	05-12019Q
● <b>Papanicolaou EA65</b>	1x500 ml	05-12017
	1x1 l	05-12017/L
	1x2,5 l	05-12017E
	4x2,5 l	05-12017Q
● <b>Papanicolaou EA 31</b>	1x500 ml	05-12015
● <b>Orange II Papanicolaou</b>	1x500 ml	05-12014

### Fast Pap

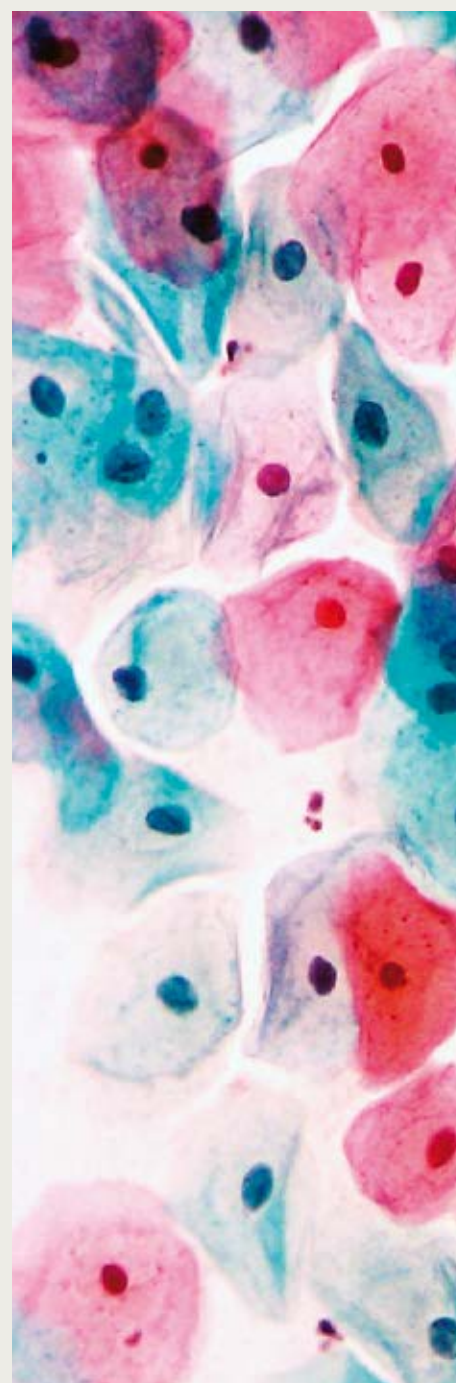
Papanicolaou staining method in less than 3 minutes; for all cytological samples.

PACKAGING	CODE
For about 500 slides	05-12055

### Isaach Wurch

Also called "Rapid Papanicolaou" staining method. This method includes only two staining solutions (nuclear and cytoplasmic).

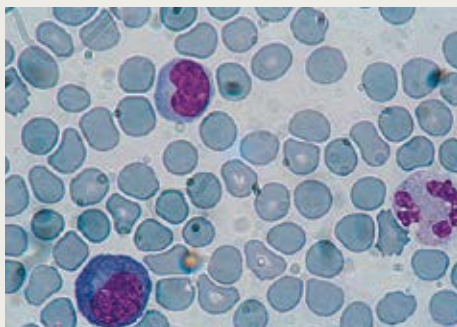
PRODUCT	PACKAGING	CODE
● <b>IWA</b> – nuclear stain Isaach Wurch	1x500 ml	05-M12020
	1x1 l	05-12020/L
● <b>IW3</b> – cytoplasmatic stain Isaach Wurch	1x500 ml	05-M12021
	1x1 l	05-12021/L



## May Grünwald Giemsa solutions

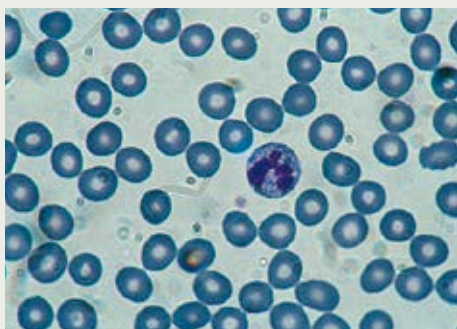
Ready-to-use solutions for May Grünwald Giemsa staining, for distinguishing cellular elements in blood smears, splenic tissue specimens, lymph node tissue, and marrow biopsies.

PRODUCT	PACKAGING	CODE
● <b>May Grünwald</b>	1x500 ml	05-M12002
	1x1 l	05-12002/L
	1x2,5 l	05-12002E
	4x2,5 l	05-12002Q
● <b>Giemsa</b>	1x500 ml	05-M12005
	1x1 l	05-12005/L
	1x2,5 l	05-12005E



## May Grünwald Giemsa staining kit for smears

PRODUCT AND APPLICATION	CODE
● <b>May Grünwald Giemsa staining kit for smears</b>	04-080802
For differential staining of cellular elements in blood smears, splenic tissue, lymph node tissue, and bone marrow specimens.	
Number of test	50 assays
Procedure time	35 minutes
Product validity	2 years
Storage temperature	15 - 25 °C
<b>Result</b>	
Nuclei	red-violet, pink
Basophil cytoplasm	from pale blue to dark blue
Acidophil cytoplasm	from pale red to pink
Polychromatophilic cytoplasm	from grey to violet
Acidophil granules	orange
Neutrophil granules	brown-dark pink
Basophil granules	dark violet
Azurophil granules	from purple to purplish violet



## MGG Quick Stain

PRODUCT AND APPLICATION	CODE
● <b>MGG Quick Stain</b>	04-090805
Quick method for the differential staining of blood formed elements, to be used also for staining other air-dried cell smears.	
Number of test	100
Procedure time	20 seconds
Product validity	2 years
Storage temperature	15 - 25 °C
<b>Result</b>	
Resulting stains and details match those obtained through standard May Grünwald Giemsa method.	



Bio - Optica

**CYTOLOGY**\_ Staining solutions and kits  
General catalogue

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## Autopsy - Dissecting

Aspirated hoods [\\_p. 90](#)

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ASPIRATED HOODS

Trimming Tech hood for histology

Trimming Tech hoods are designed for meeting operator needs in terms of chemical and biological hazard prevention when processing formalin fixed anatomical specimens. These workstations feature front, top and worktop extraction, guaranteeing the immediate extraction of formaldehyde vapour.

Manufacturing characteristics

- Stainless steel framework
- Accident-prevention vertically sliding power window installed on front, providing a fume barrier.
- Shelf tray
- Polyethylene trimming board 350 x 450 x 20 mm (w x d x h)
- Filter basket and cover for formalin tank

Worktop characteristics

- Seamless stainless steel worktop
- Anti-drip edge
- Basin with foot operated mixer tap and pull-up hand shower for bench washing.
- Tank for formalin disposal
- Waste liquid collection tanks with extraction system and independent washing system

Extraction system

- Pre-installed formalin filters with alumina grains
- Pre-installed synthetic fibres cartridge pre filters
- Manifold for the connection to the central system
- Control panel with soft-touch keyboard for operating parameter setting



PRODUCT	WORKTOP	DIMENSION	CODE
● <b>Trimming Tech 90</b>	left sink	900x750x2230 mm	50-090-001
	right sink		50-090-002
● <b>Trimming Tech 130</b>	left sink	1300x750x2230 mm	50-130-001
	right sink		50-130-002
● <b>Trimming Tech 150</b>	left sink	1500x750x2230 mm	50-150-001
	right sink		50-150-002
● <b>Trimming Tech 180</b>	left sink	1800x750x2230 mm	50-180-001
	right sink		50-180-002
	central sink		50-180-003

Accessories for aspirated hood for histology

PRODUCT	CODE
Garbage disposal unit for organic substances	50-500-055
Millimetre ruler	50-500-054
Stainless steel filter for formalin basin	50-500-059
Magnetic knife holder	50-500-060
Kleenex dispenser	50-500-061
UV lamp and protection blind (*)	50-500-057
Formalin suction filter	50-500-058
Articulated lamp with cold light, 3-dioptre lens	50-500-069
HEPA (High Efficiency Particulate Air) filter	50-F005
Formalin filter with alumina grains	50-F003
Synthetic fibre pre filter	50-F007
Stainless steel filter for water basin	50-500-062
Spare lamp for UV 50-500-057 system	50-500-070
Swivelling stool	40-300-450
Footrest	40-300-451
Image acquisition system with touch-screen pc	50-200-001
Image acquisition system with desktop pc	50-200-101

(\*) To be installed only during the production stage.



### Image acquisition system MAS10

System designed for the acquisition and storage of histological specimen images and audio tracks during trimming operations. This system is based on a head that contains the optical system, the LED illuminator, the control and connection boards. This head is installed inside a trimming bench hood or on a stand.



Features

Dimension:	428 x 450 x 950 mm (w x d x h)
Weight:	12 kg
Distance objective - work plan:	800 mm approximately
Diagonal field acquisition:	from 450 to 70 mm approximately
Diaphragm:	fixed
Zoom control:	automatic
Pedal control:	included, with zoom-in, zoom-out, click
Camera resolution:	10Mpixel
Illuminator:	ring with integrated LED light sources with electronic control

PRODUCT

CODE

System MAS10

for hood mounted version, with touch screen pc

50-200-000

for hood mounted version, with desktop pc

50-200-100

for stand mounted version, with touch screen pc

50-200-001

for stand mounted version, with desktop pc

50-200-101





## Receiving Tech

Bench with extraction system, designed for the disposable containers during the processing of formalin fixed histological specimens.

### Manufacturing characteristics

- Stainless steel framework
- Smooth worktop for larger working area

### Extraction system

- Fume extraction system from bench top and front.
- Preinstalled filter
- Control panel with soft-touch keyboard for operating parameter setting

PRODUCT	DIMENSION	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

## Filters

PRODUCT	CODE
Alumina filter for formaldehyde	50-F003
Synthetic fibre pre filter	

## AUTOPSY TABLES

Available in three models:

- Model TV410, height adjustable and featuring vapour extraction system from worktop
- Model TV410, fixed height, featuring vapour extraction system from worktop
- Model PL400, fixed height and without extraction system

### Manufacturing characteristics

- Stainless steel framework
- Collection tank inclined towards the draining hole, provided with liquid containing rim, covered with 5 removable perforated trays.
- Water basin with manual sanitary lever mixer tap
- Double washing system including a flexible shower for washing the whole worktop and an independent washing system inside the tank.
- Headrest
- Sliding overbed table, 35 cm high, inclined for simplifying draining, with Teflon top.

### Extraction system (for model 410TA)

- Three-phase extraction fan, anti-spark
- Preinstalled activated carbon cartridge filter
- Manifold for the connection to the central system

PRODUCT	DIMENSION	CODE
Model TV410	2700x900x(900-1100) mm	50-270-701
Model TA410	2700x900x900 mm	50-270-702
Model PL400	2700x900x900 mm	50-270-703



## INSTRUMENTS

Wide range of tools for autopsy and trimming of anatomical specimens.



PRODUCT AND DESCRIPTION	DIMENSION	PACKAGING	CODE
● <b>Autopsy needle</b>	135 mm	12 pcs	32-600.1
	125 mm	12 pcs	32-600.2
	105 mm	12 pcs	32-600.3
	73 mm	12 pcs	32-600.6
● <b>Cartilage knife</b>			
Langenbeck model, convex	55 mm (blade)	1 pcs	32-614.1
Langenbeck model, pointed	55 mm (blade)	1 pcs	32-614.2
With raspatory	65 mm (blade)	1 pcs	32-615
● <b>Brain knife</b>	254 mm	1 pcs	32-617.3
● <b>Organ knife</b>	254 mm	1 pcs	32-618.2
	152 mm	1 pcs	32-619
● <b>Surgical scissors straight</b>	130 mm	1 pcs	32-623.1
	145 mm	1 pcs	32-623.2
	150 mm	1 pcs	32-623.3
	165 mm	1 pcs	32-623.4
● <b>Surgical scissors curved</b>	130 mm	1 pcs	32-624.1
	145 mm	1 pcs	32-624.2
	150 mm	1 pcs	32-624.3
	165 mm	1 pcs	32-624.4
● <b>Enteric scissors with bottom</b>	195 mm	1 pcs	32-625
● <b>Dissection scissors</b>			
With bottom point	120 mm	1 pcs	32-627
Pointed, with probe	145 mm	1 pcs	32-628
● <b>Cutting scissors</b>	130 mm	1 pcs	32-629.1
	145 mm	1 pcs	32-629.2
	165 mm	1 pcs	32-629.3
● <b>Scissors for microscopy straight</b>			
Delicate	110 mm	1 pcs	32-703
Iris and ligature scissors, straight	115 mm	1 pcs	32-704.1
Delicate, straight	95 mm	1 pcs	32-705.1
Straight	108 mm	1 pcs	32-706.1
● <b>Scissors for microscopy curved</b>			
Iris and ligature scissors, curved	115 mm	1 pcs	32-704.2
Delicate, straight	95 mm	1 pcs	32-705.2
Curved	108 mm	1 pcs	32-706.2
● <b>Muscle scissors Mayo-Noble</b>	170 mm	1 pcs	32-630

PRODUCT AND DESCRIPTION	DIMENSION	PACKAGING	CODE
● <b>Dissecting forceps medium</b>			
	130 mm	1 pcs	32-646.1
	145 mm	1 pcs	32-646.2
	160 mm	1 pcs	32-646.3
● <b>Dissecting forceps standard</b>			
	145 mm	1 pcs	32-647.1
	160 mm	1 pcs	32-647.2
	180 mm	1 pcs	32-647.3
	200 mm	1 pcs	32-647.4
	250 mm	1 pcs	32-647.5
● <b>Surgical forceps medium</b>			
	130 mm	1 pcs	32-646.1
	145 mm	1 pcs	32-646.2
	160 mm	1 pcs	32-646.3
● <b>Surgical forceps standard</b>			
	145 mm	1 pcs	32-649.1
	160 mm	1 pcs	32-649.2
	180 mm	1 pcs	32-649.3
	200 mm	1 pcs	32-649.4
	250 mm	1 pcs	32-649.5
● <b>Haemostatic forceps</b>			
Halsted-Mosquito straight	125 mm	1 pcs	32-707.1
Halsted-Mosquito curved	125 mm	1 pcs	32-707.2
Pean straight	140 mm	1 pcs	32-708
Kocher with teeth straight	140 mm	1 pcs	32-709
● <b>Mallets</b>			
Light - plastic	250 mm - Ø 42	1 pcs	32-633.2
Heavy - plastic	250 mm - Ø 50	1 pcs	32-633.3
Ombredanne - stainless steel	240 mm - Ø 40	1 pcs - 550 g	32-634
Bergmann - stainless steel	235 mm - Ø 30	1 pcs - 245 g	32-635
● <b>Chisel</b>			
Tip 20 mm	245 mm	1 pcs	32-605
● <b>Osteotomes</b>			
Tip 8 mm	140 mm	1 pcs	32-641.1
Tip 10 mm	140 mm	1 pcs	32-641.2
● <b>Stille osteotomes</b>			
Tip 8 mm	205 mm	1 pcs	32-642.1
Tip 10 mm	205 mm	1 pcs	32-642.2
Tip 12 mm	205 mm	1 pcs	32-642.3
Tip 15 mm	205 mm	1 pcs	32-642.4
Tip 20 mm	205 mm	1 pcs	32-642.5
Tip 25 mm	205 mm	1 pcs	32-642.6
● <b>Gouges</b>			
8 mm wide	140 mm	1 pcs	32-658.1
10 mm wide	140 mm	1 pcs	32-358.2
12 mm wide	140 mm	1 pcs	32-358.3







PRODUCT AND DESCRIPTION	DIMENSION	PACKAGING	CODE
● <b>Probe, double ended - Ø 1,5 mm</b>			
	145 mm	1 pcs	32-662.1
	160 mm	1 pcs	32-662.2
	180 mm	1 pcs	32-662.3
	200 mm	1 pcs	32-662.4
	250 mm	1 pcs	32-662.5
● <b>Myrtle leaf probe - Ø 2 mm</b>			
	145 mm	1 pcs	32-660.1
	160 mm	1 pcs	32-660.2
	200 mm	1 pcs	32-660.3
● <b>Probe</b>			
	145 mm	1 pcs	32-661.1
	160 mm	1 pcs	32-661.2
● <b>Blood Scoop</b>	50 ml (volume)	1 pcs	32-636
● <b>Cranium chisel</b>	140 mm	1 pcs	32-659
● <b>Rib shears</b>			
Standard	230 mm	1 pcs	32-620
Gluck model	190 mm	1 pcs	32-621
● <b>Bone scissors</b>			
	203 mm	1 pcs	32-631.1
	228 mm	1 pcs	32-631.2
● <b>Bone holding forceps</b>			
Fergusson model	205 mm	1 pcs	32-644
Semb model	190 mm	1 pcs	32-645
● <b>Instruments for measuring</b>			
Caliper, measuring range up to 150 mm	150 mm	1 pcs	32-603
Stainless steel ruler graduated in mm/inches	150 mm	1 pcs	32-651.1
Stainless steel ruler graduated in mm/inches	300 mm	1 pcs	32-651.2
Stainless steel ruler graduated in mm/inches	500 mm	1 pcs	32-651.3
● <b>Amputation saw</b>			
Saw with two blades	12 e 18 cm	1 pcs	32-657
Spare blade	12 cm	1 pcs	32-657.1
Spare blade	18 cm	1 pcs	32-657.2
● <b>Amputation saw</b>			
Satterlee model	290 mm	1 pcs	32-653
Spare blade for Satterlee model	290 mm	1 pcs	32-653.1
Charriere model	270 mm	1 pcs	32-654.1

AUTOPSY SAW

Oscillating electric saw with extraction system  
Swordfish 5000

Oscillating autopsy saw with waste extraction and collection system.  
Equipment starting kit includes:

- 1 x circular blade, 64 mm diameter
- 1 x circular blade for plaster casts, 64 mm diameter
- 1 x circular blade, 76 mm diameter
- 1 x 51 mm segmental blade
- 1 x paper filter
- 1 x fabric filter
- 1 x HEPA microfilter

PRODUCT	CODE
Autopsy Oscillating Medical Saw	32-MSYS5000

PRODUCT AND DESCRIPTION	CODE
<ul style="list-style-type: none"><li>● <b>64 mm circular autopsy blade, 10 piece pack.</b> It is the most used blade, for the majority of autopsy operations. The coarse pitch blade reduces jam to a minimum Four fixing point for improved safety. They can also be rotated to a new position, when any saw part wears out.</li></ul>	32-MBC64M
<ul style="list-style-type: none"><li>● <b>64 mm circular autopsy blade for plaster casts, 10 piece pack.</b> Fine pitch blade for ensuring better accuracy and reducing any slipping risk It can be rotated, for longer use.</li></ul>	32-MBC64P
<ul style="list-style-type: none"><li>● <b>76 mm circular autopsy blade, 10 piece pack.</b> Wider blade for increased cutting depth. The coarse pitch blade reduces jam to a minimum It can be rotated, so as to prolong its use.</li></ul>	32-MBC76
<ul style="list-style-type: none"><li>● <b>51 mm segmental blade, 10 piece pack.</b> Segmented blade for accurate specialist operations.</li></ul>	32- MBS51



Bench mounted electrical autopsy saw

Bench mounted electrical saw, for trimming bones and large specimens.

- Saw body:**
- Solid aluminium frame, grey
  - Stainless steel bench worktop
  - Dimension: 420 x 420 mm
- Blade:**
- Length: 1,550 mm
  - Adjustable blade tightener
  - Built-in blade positioner (slice thickness control)
  - Built-in pusher. Maximum cutting height: 260 mm

PRODUCT	DIMENSION	CODE
Bench autopsic saw	530 x 400 x 850 mm	19-590408
Stainless steel base (optional)		19-590408B
Spare blade		19-590408L



## ACCESSORIES

### Trimming board



Anatomical dissecting board Disposable boards with millimetre scale.

PRODUCT	MATERIAL	PACKAGING	CODE
30 x 50 cm	Polyethylene	1 pcs	07-7807
15 x 21 cm	Cardboard	20 pcs	08-8000 (disposable)
30 x 21 cm	Cardboard	20 pcs	08-8010 (disposable)
30 x 42 cm	Cardboard	20 pcs	08-8020 (disposable)
35 x 45 cm	Polyethylene	1 pcs	19-AC515/PS

### Tissue Marking Dyes



Dyes used for marking the margins of excised surgical specimens or processing different specimens in a single embedding cassette.

COLOUR	PACKAGING	CODE
Complete kit	7x60 ml	08-03000
Black	1x60 ml	08-0727-1
Blue	1x60 ml	08-0727-2
Green	1x60 ml	08-0727-3
Red	1x60 ml	08-0727-4
Yellow	1x60 ml	08-0727-5
Orange	1x60 ml	08-0727-6
Violet	1x60 ml	08-0727-7
Black	1x240 ml	08-0728-1
Blue	1x240 ml	08-0728-2
Green	1x240 ml	08-0728-3
Red	1x240 ml	08-0728-4
Yellow	1x240 ml	08-0728-5
Orange	1x240 ml	08-0728-6
Violet	1x240 ml	08-0728-7





### Multi-purpose containers

Shockproof containers for small histological specimens.

PRODUCT	MATERIAL	CAP	CODE
10 ml	1.800 pcs	Pressure cap	07-7760
20 ml	1.000 pcs	Pressure cap	07-7770
30 ml	750 pcs	Pressure cap	07-7780
50 ml	500 pcs	Pressure cap	07-7790
40 ml	500 pcs	Screw cap	07-M40
60 ml	500 pcs	Screw cap	07-M60

### Multi-purpose screen printed containers

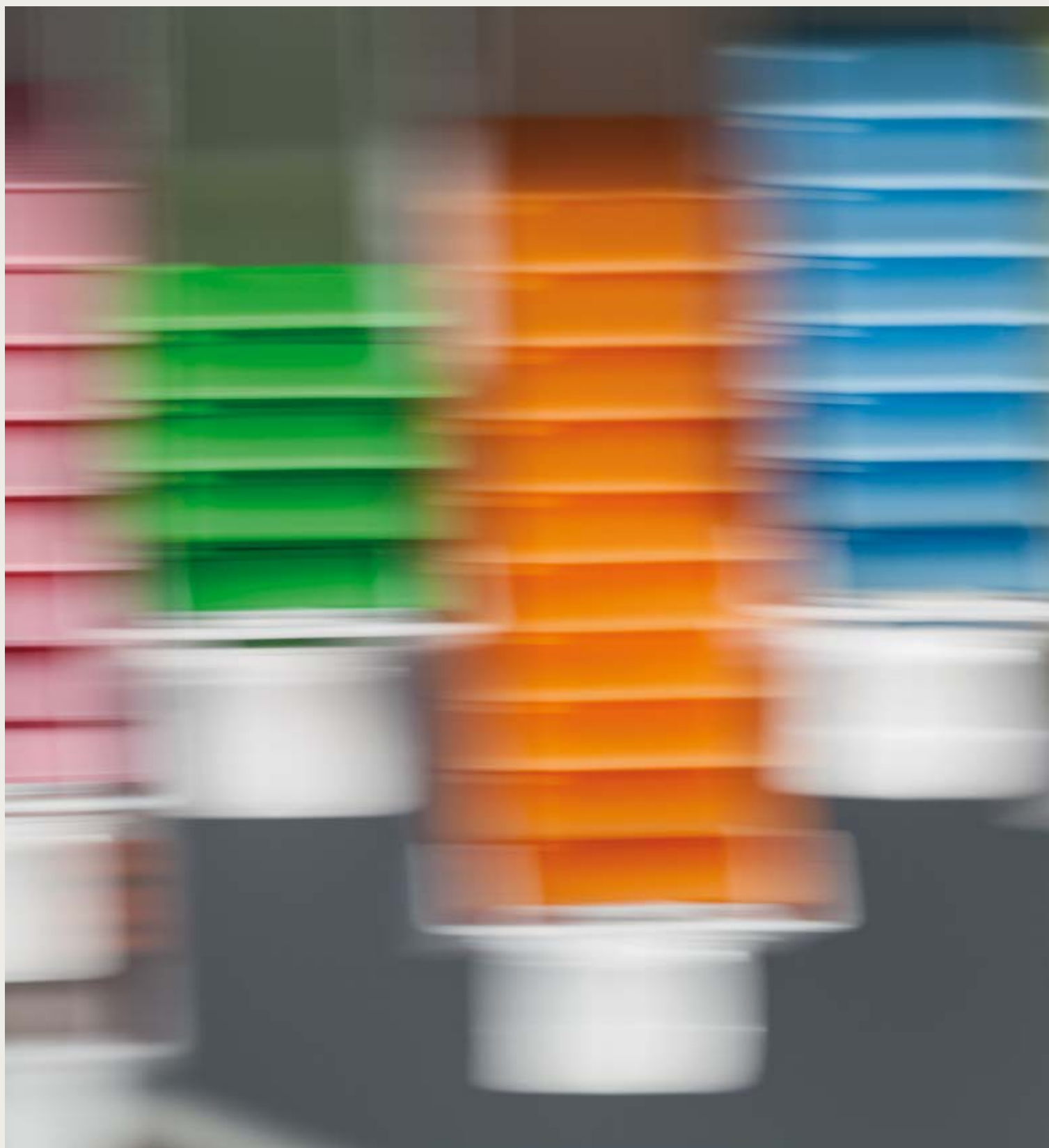
Multi-purpose polypropylene containers, with press-on cap ensuring perfect seal for storing histological specimens. Each container features screen-printed label of the chemical and biological risk symbols for ready-to-use neutral buffered formalin. Containers feature a small window for checking that the histological specimen is completely covered by the fixative solution.

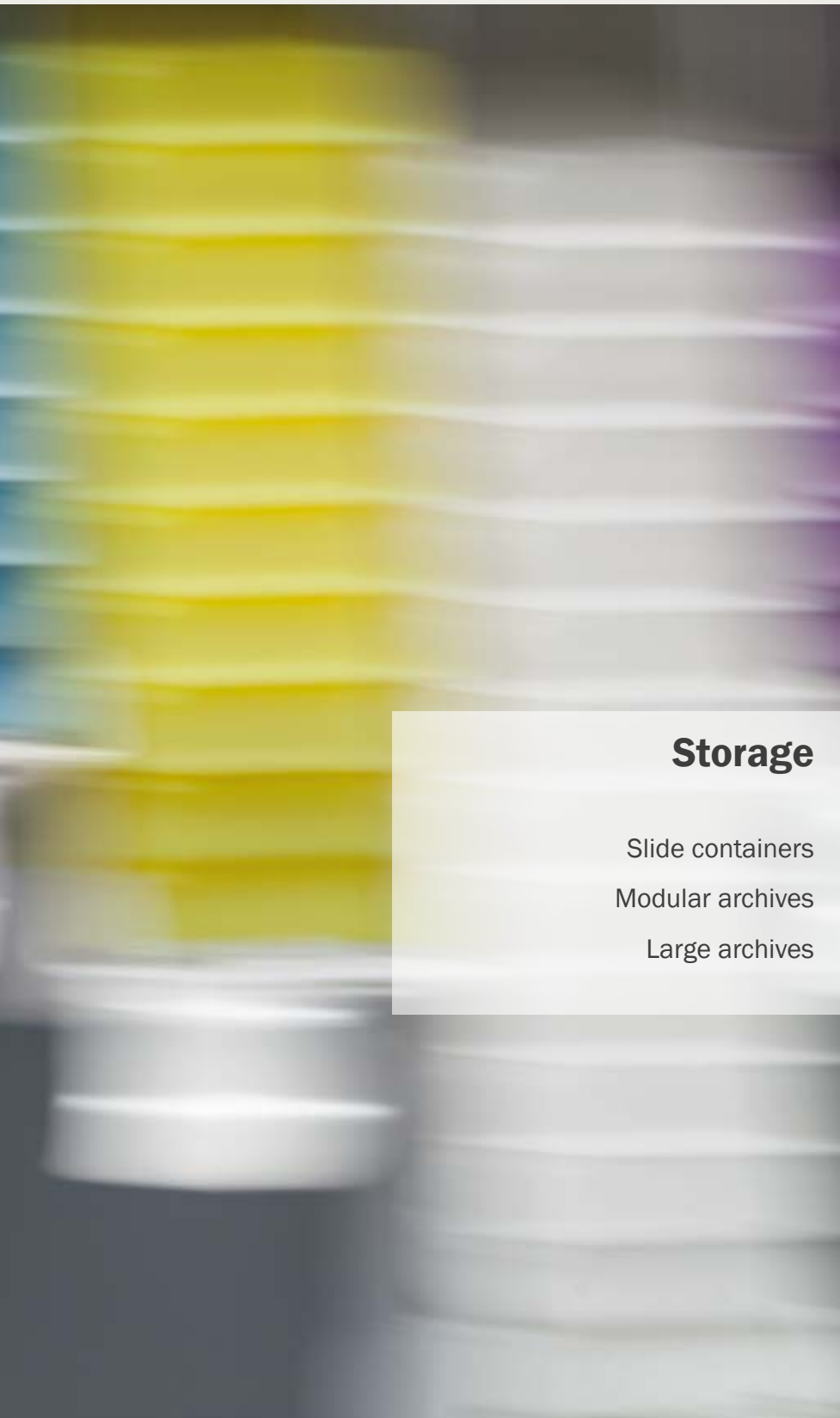
PRODUCT	PACKAGING	CAP	CODE
125 ml	250 pcs	Pressure cap	07-7700
250 ml	200 pcs	Pressure cap	07-7750
500 ml	100 pcs	Pressure cap	07-7710
1.000 ml	100 pcs	Pressure cap	07-7720
3.000 ml	50 pcs	Pressure cap	07-7730
5.000 ml	20 pcs	Pressure cap	07-7740





# Bio - Optica





## Storage

Slide containers

**p. 102**

Modular archives

**p. 104**

Large archives

**p. 107**

## SLIDE CONTAINERS

### Slide trays, cardboard

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



PRODUCT	PACKAGING	SIZE	CODE
1 slide with cover	1 pcs	102x45 mm	09-0011
2 slides with cover	1 pcs	102x94 mm	09-0002
3 slides with cover	1 pcs	102x105 mm	09-0003
6 slides with cover	1 pcs	213x102 mm	09-0006
10 slides with cover	1 pcs	342x102 mm	09-0010
20 slides	1 pcs	342x205 mm	09-0000
20 slides with separators	1 pcs	342x205 mm	09-0020
20 slides with cover	1 pcs	342x205 mm	09-0001
20 slides with cover and separators	1 pcs	342x205 mm	09-0023

### Slide trays, plastic

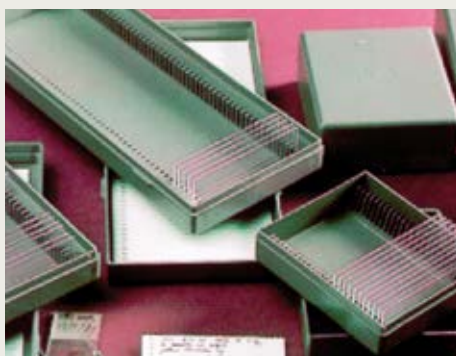
Trays for classifying and storing standard slides (25x75 mm or 26x76 mm).



PRODUCT	PACKAGING	SIZE	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 cover	1 pcs	190x290 mm	09-57620

### Slide boxes, plastic

Stackable and shockproof. They feature specimen classification sheet.



PRODUCT	PACKAGING	SIZE	CODE
25 slides	1 pcs	98x83x38 mm	44-13071
50 slides	1 pcs	230x97x35 mm	44-13072
100 slides	1 pcs	230x180x35 mm	44-13073

Slide boxes, wooden

They feature specimen classification sheet.

PRODUCT	PACKAGING	SIZE	CODE
50 slides	1 pcs	274x98 mm	09-850724
100 slids	1 pcs	274x184 mm	09-850723



Slide bags

Polystyrene bag, containing 4/8 slides.

PACKAGING	SIZE	CODE
100 pcs	150x110 mm	14-990



Transport containers for microscope slides

Plastic and shockproof.

PRODUCT	PACKAGING	SIZE	CODE
With pressure cap for 5 slides	50 pcs	28x82x16 mm	09-000530
With screw cap for 5-10 slides	10 pcs	ø 40xh 90 mm	44-13061
Snap closure for 1 slide	500 pcs	50x100x6 mm	44-13031
Snap closure for 2 slides	500 pcs	73x85x6 mm	44-13041
Snap closure for 3 slides	100 pcs	100x84x6 mm	44-13051





MODULAR ARCHIVES

Istoglass - Istobloc

Modular systems for storing slides and paraffin embedded specimens. Istoglass modules (for slides) and Istobloc modules (for cassettes) are made of white enamelled plate. They consist of sliding drawers fitted on guides. Each block of Istoglass/Istobloc modules may be completed by the base and the cover. The special 7-drawer version for large sized slides or super mega cassette shows the same modular characteristics. A spacing spring is recommended for ensuring that slides are kept vertical and the proper space is left between them.



Features

Dimension (w x d x h):	Istoglass - 490 x 490 x 140 mm Istobloc - 490 x 490 x 90 mm
Weight for each module:	13 kg empty, about 20 kg with cassettes, about 40 kg with slides
Capacity for each module:	Istoglass - 5.000 slides Istobloc - 860 cassettes or 540 rings
Overlay recommended modules:	10 Istoglass, 15 Istobloc
Number of drawers for module:	14

PRODUCT	CODE
Istoglass for slides	03-5000-14
Istobloc for cassettes	03-B900
Istoglass 7 drawers for macro-sections	03-7000
Base	03-5000-BA
Cover	03-5000-CO
Spacing spring	03-5000-MD

Colorteca

Modular system for storing slides and paraffin embedded specimens.  
Plastic drawers have been especially designed for containing both slides and embedded specimens.  
Drawers are available in 8 different colours, which can be easily related to the colours of the slides or blocks to be stored there.  
Each module includes 13 drawers, and each drawer can contain approx. 330 slides or 48 blocks or 24 embedding rings.  
Module external dimensions are the same as Istoglass modules (item No. 05-5000-14) and Istobloc (item No. 03-B900). This means the coloured cabinet can be stacked on any existing cabinet.

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





### Bio-block

Modular plastic storage cabinet with 8 drawers for paraffin embedded specimens (cassettes or embedding rings). Each drawer has seven different compartments. Bio-block total capacity is 2.250 cassettes approximately. Bio-block simple joints guarantee exceptional modularity since they allow for both vertical and horizontal module staking.

DIMENSION	PACKAGING	CODE
240x300x400 mm	1 pcs	03-3000

### Cartoglass - Cartoblock

Modular cardboard system, light and resistant, easy to transport, even when full. The Cartoglass (for slides) and Cartoblock (for cassettes) modules are equipped with internal cardboard dividers, creating up to 36 partitions in Cartoglass module and 16 partitions in Cartoblock module.

PRODUCT	CAPACITY FOR MODULE	DIMENSION	PACKAGING	CODE
Cartoglass	3.000 slides	290x400x80 mm	10 pcs	03-4015-BA
Cartoblock	320 cassettes 220 rings	290x400x45 mm	10 pcs	03-4010-BC
Cover		290x400x15 mm	10 pcs	03-4020-B0





## LARGE ARCHIVES

Storage systems consisting of a steel plate coated with epoxy powder applied electrostatically, without solvents, thus respecting the environment, and then processed into thermal tunnel at 200 °C, extremely resistant to standard chemical attacks.

Each drawer is fitted onto slides, and allows access to the whole drawer area. The drawer includes plastic containers (item No. 03-C28N) for better storage of both slides and embedded blocks.

They feature central locking, available in three different versions:

- Lock with security cylinder, including anti-overtake system (only one drawer can be opened at a time)
- “Code lock”: key is replaced by a number code
- “Remote Lock”: electronic system with manual radio-controls

The front handle of each drawer features a cardboard label for content identification  
Colours available:

- Blue (standard, Ral 5012)
- Flame red (upon request, Ral 3000)
- Green (upon request, Ral 6011)
- Pebble grey (upon request, Ral 7032)

PRODUCT	CAPACITY (N° DISHES)	DRAWERS	DIMENSION	WEIGHT	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	80.640 V	14	1450 mm	338	03-V92B23B
	17.920 B	(V 6 e B 8)			
	80.640 V	16	1550 mm	400	03-V80B22B
	22.400 B	(V 6 e B 10)			





Mobile storage cabinet

Storage cabinet for slides or blocks, featuring wheels and handles for transport. Cabinet top features a blue ribbed mat with special edge for fall prevention, preventing slide trays from slipping and falling during shifts. Three locks are available for these storage cabinets, too:

- Key Lock
- Code Lock
- Remote Lock



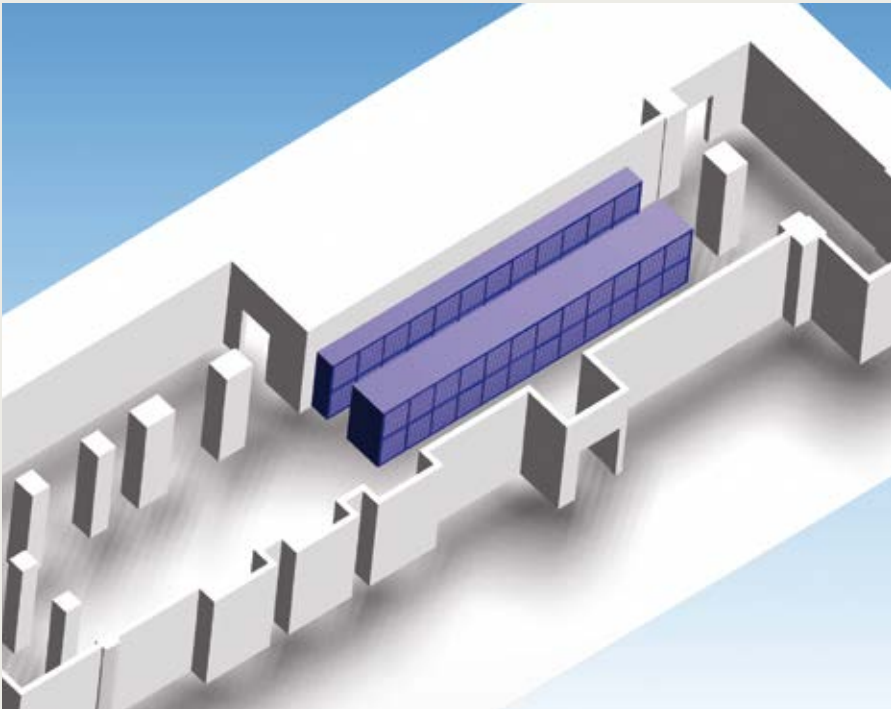
PRODUCT	CAPACITY	DRAWERS	DISHES	DIMENSION MM	WEIGHT KG (EMPTY)	CODE
For cassettes	11.520	12	144	564x725x1.000	188	03-B13440B
For slides	51.840	9	108	564x725x1.000	159	03-V60480B
For slides and cassettes	34.560 slides 3.840 cassettes	10 (6 for slides and 4 for cassettes)	120	564x725x1.000	168	03-V40B4B

Accessories for large storage cabinets

PRODUCT	CODE
Container for slides and embedded blocks	03-C28N
Container for slides and macrosection cassettes	03-C28S
Steel cabinet base, preset for pallet trucks	03-90320120
Steel cabinet base, preset for pallet trucks	03-5000-MDL
Key lock	03-820.002
Code lock	03-820.011
Remote lock for standard storage cabinets	03-ER820013
"Remote lock mobile", for mobile storage cabinets	03-ER820019

Bio-Optica is also specialized in the design and supply of costumized large archives, offering customers:

- Experience
- Professionalism
- Cutting-edge design techniques



**Design**



**Result**

Bio - Optica





## Security

Aspirated cabinets

**\_p. 112**

Hood and bench

**\_p. 113**

Protectives for lab

**\_p. 115**



ASPIRATED CABINETS

FC series ventilated safety cabinets

Ventilated cabinets designed for the storage of formalin fixed histological specimens or for solvents and chemical substances.

- Manufacturing characteristics**
- Electrogalvanized steel plate frame
  - Three trays, adjustable height
  - Overlapping doors made of accident prevention glass

- Extraction system**
- Anti-spark fan extractor
  - Formaldehyde filter with alumina grains
  - Manifold for the connection to the central extraction systems
  - Control panel with soft-touch keyboard for operating parameter setting



PRODUCT	OVERALL DIMENSION	INTERNAL DIMENSION	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
Filter for formalin	50-F001
Filter for solvents	50-F002
HEPA filter	50-F006
Palletized base to facilitate the moving of cabinet	50-600-053



## HOOD AND BENCH

### Desk Tech - Laboratory bench

Stainless steel laboratory bench with smooth worktop, liquid containing rim or basin, depending on the model.

#### Manufacturing characteristics

- Completely stainless steel framework
- Base feet in antistatic and anti-slip material

PRODUCT	WORKING SURFACE	DIMENSION	CODE
● <b>Desk Tech 90</b>	smooth	900x750x900 mm	50-090-401
	with liquid containing rim		50-090-402
	with wash basin		50-090-403
● <b>Desk Tech 130</b>	smooth	1300x750x900 mm	50-130-401
	with liquid containing rim		50-130-402
	with wash basin on the left		50-130-403
	with wash basin on the right		50-130-404
● <b>Desk Tech 150</b>	smooth	1500x750x900 mm	50-150-401
	with liquid containing rim		50-150-402
	with wash basin on the left		50-150-403
	with wash basin on the right		50-150-404
● <b>Desk Tech 180</b>	smooth	1800x750x900 mm	50-180-401
	with liquid containing rim		50-180-402
	with wash basin on the left		50-180-403
	with wash basin on the right		50-180-404



## Lab Tech chemical hoods

Hood designed for slide mounting and staining operations. Designed for chemical and biological risk prevention. Featuring front and top vapour extraction system.

### Manufacturing characteristics

- Stainless steel framework
- Accident-prevention vertically sliding manual window installed on front providing a fume barrier inside the hood.
- Shelf tray

### Filtering/Extraction system

- Pre-installed synthetic fibre pre filters and filters
- Preset for HEPA filter.
- Control panel with soft-touch keyboard for operating parameter setting

### Features

Working usable height:	850 mm
Control panel:	touch screen monitor for the control and the visualization of all the functions

## Working surface

PRODUCT	WORKING SURFACE	DIMENSION	CODE
● <b>Lab Tech 90</b>	with liquid containing rim	900x750x2230 mm	50-090-101
	without liquid containing rim		50-090-102
	with wash basin on the left		50-090-103
	with wash basin on the right		50-090-104
● <b>Lab Tech 130</b>	with liquid containing rim	1300x750x2230 mm	50-130-101
	without liquid containing rim		50-130-102
	with wash basin on the left		50-130-103
	with wash basin on the right		50-130-104
● <b>Lab Tech 150</b>	with liquid containing rim	1500x750x2230 mm	50-150-101
	without liquid containing rim		50-150-102
	with wash basin on the left		50-150-103
	with wash basin on the right		50-150-104
	with double wash basin		50-150-105
● <b>Lab Tech 180</b>	with liquid containing rim	1800x750x2230 mm	50-180-101
	without liquid containing rim		50-180-102
	with wash basin on the left		50-180-103
	with wash basin on the right		50-180-104
	with double wash basin		50-180-105

## Standard components included in the equipment

PRODUCT	CODE
Filter for solvents	50-F004
Prefilter	50-F007

## Optional accessories

PRODUCT	CODE
HEPA filter	50-F005
Spare lamp for UV system 50-500-057	50-500-070
U.V. lamp with self-switching off programming and rolling protection curtain	50-500-057

## PROTECTIVES FOR LAB

### Disposable aprons

Polyethylene apron, perfect for laboratory and dissection room.

PRODUCT	DIMENSION	PACKAGING	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

Professional gloves Guaranteeing excellent cut resistance with lightweight and comfort, protection class III.

SIZE	PACKAGING	CODE
Small	1 pair	08-70-750/S
Medium	1 pair	08-70-750/M
Large	1 pair	08-70-750/L
Extralarge	1 pair	08-70-750/XL



### Wire mesh gloves

To be used during autopsies and anatomical specimen trimming.

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



### Transport bags

Polypropylene bags for specimen transport, equipped with minigrip closure and document folder.

SIZE	PACKAGING	CODE
16 x 25 cm	500 pcs	44-9590



### Bio-Pads

Special fabric pads for formaldehyde absorption.

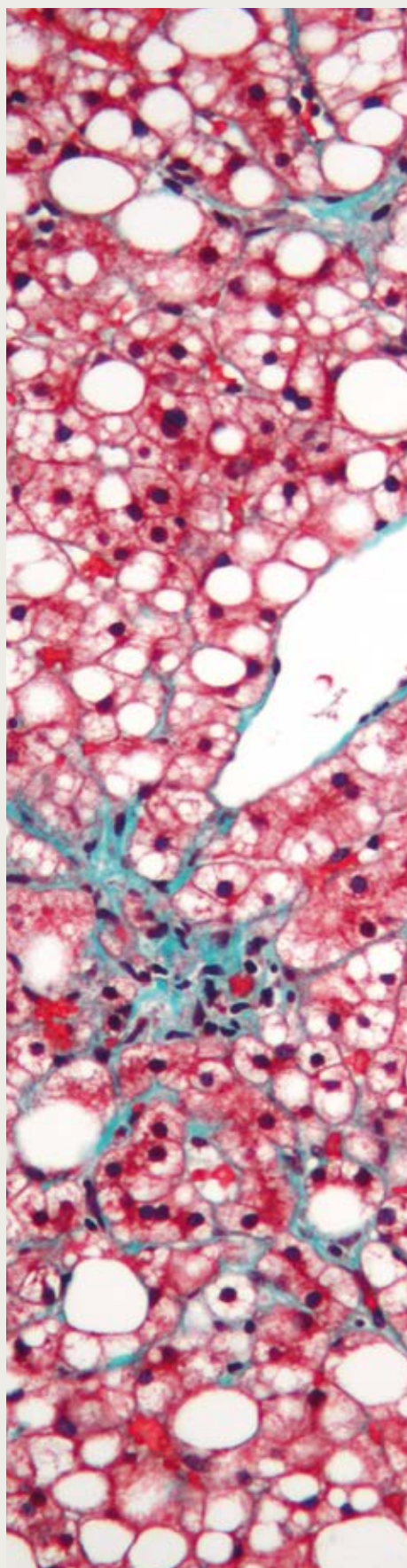
Perfect for containing any formaldehyde spillage, leakage and dripping during anatomical specimen trimming, reducing the occupational risk related to the exposure to formalin.

SIZE	PACKAGING	CODE
203 x 254 mm	25 pcs	08-FNP0810
406 x 508 mm	25 pcs	08-FNP1620





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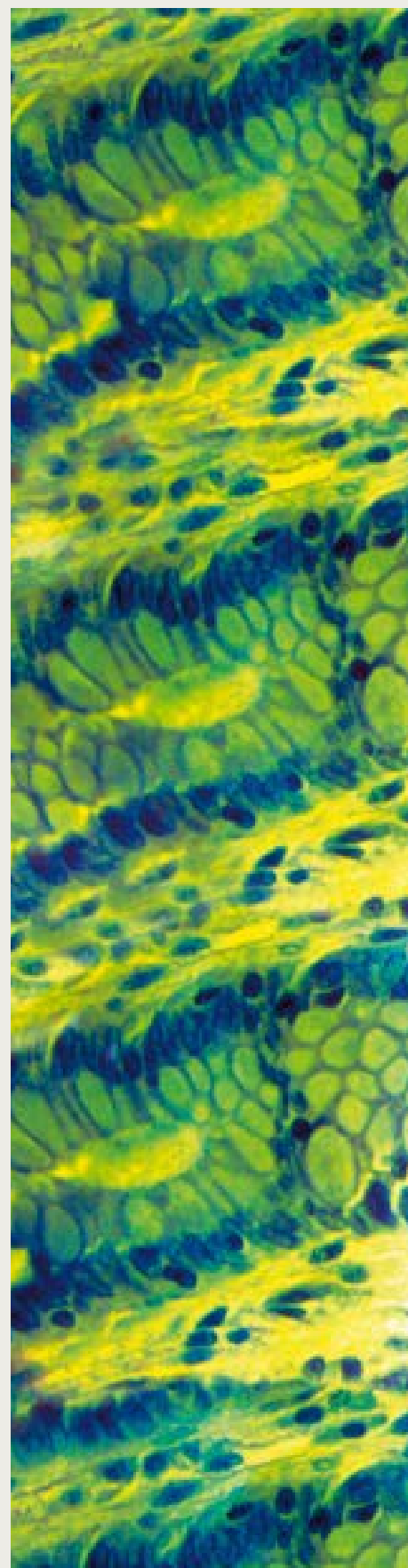
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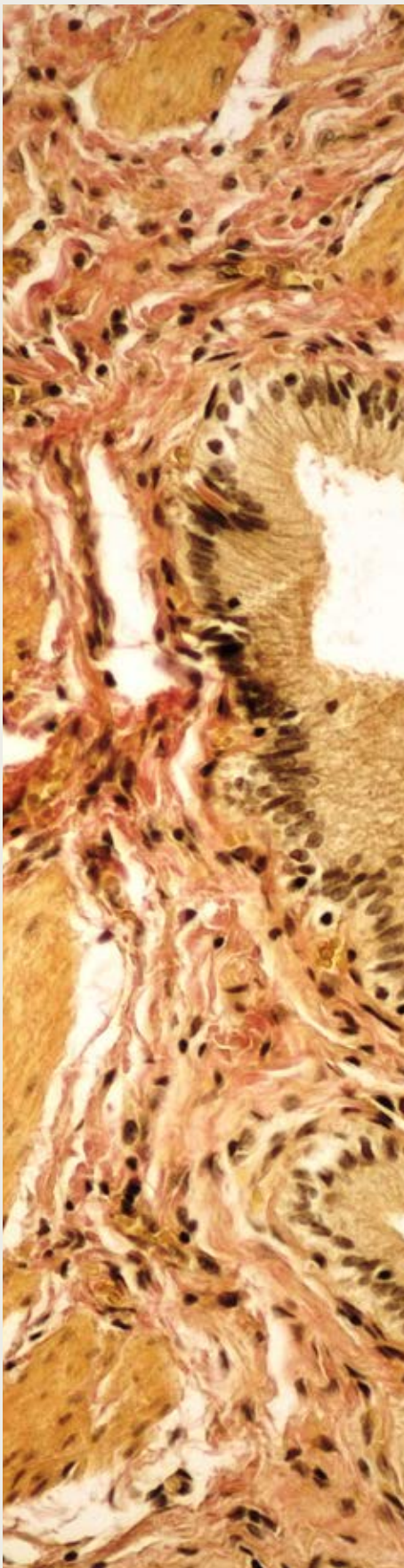
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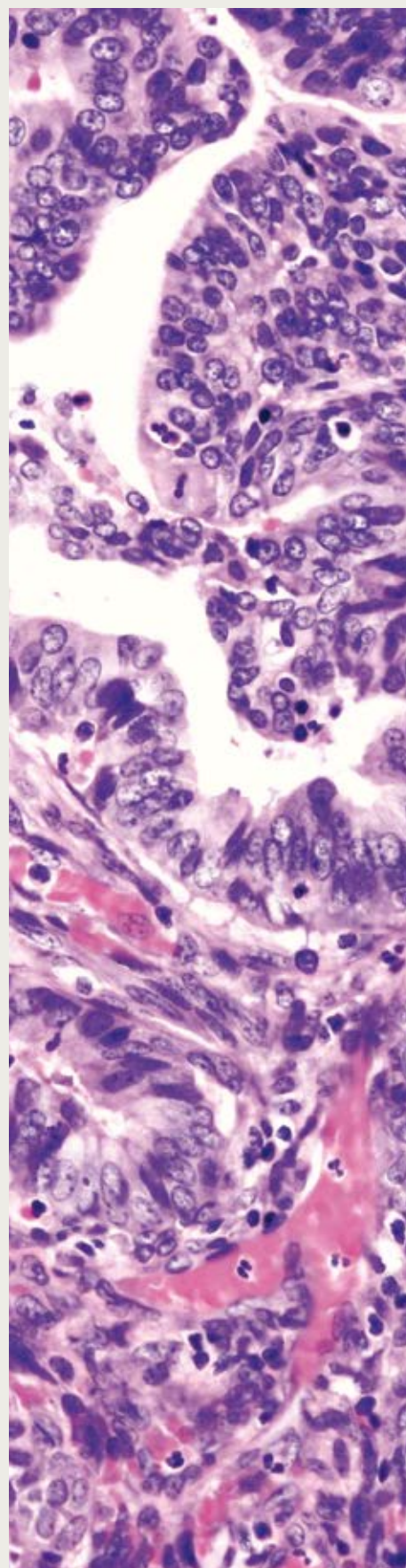
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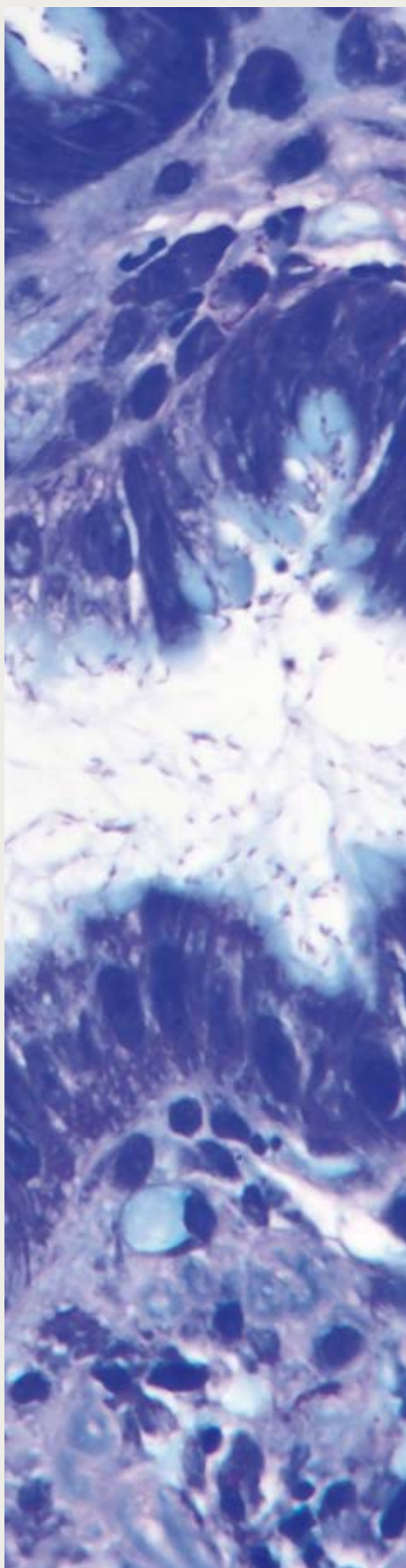
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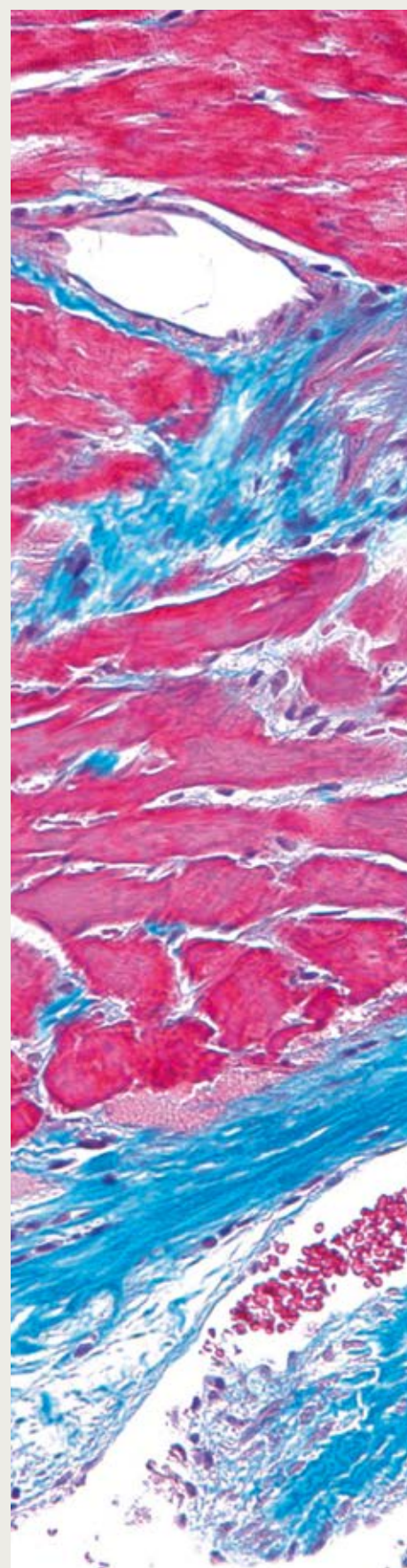
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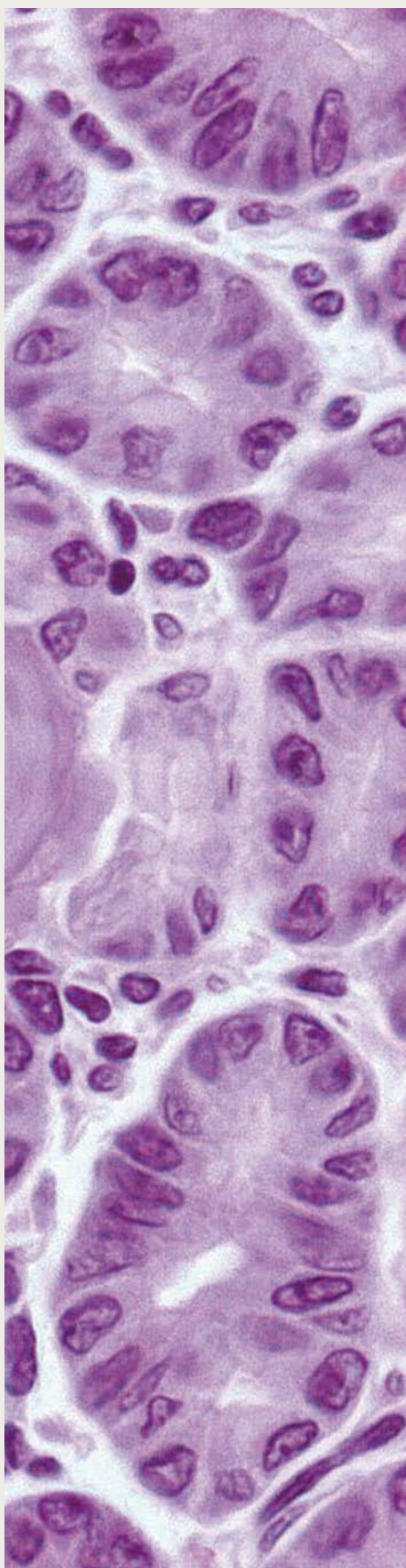
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