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1.07100.0025

# Microscopy

## Orcein

for microscopy Certistain®

**IVD** In Vitro Diagnostic Medical Device


for staining of elastic fibers in histological sections

This staining dye "Orcein - for microscopy Certistain®" is used for human-medical cell diagnosis and serves the purpose of the histological investigation of sample material of human origin. It is a dry staining dye that is used to prepare a staining solution, that when used together with other in vitro diagnostic products from our portfolio makes target structures in histological specimen materials (by fixing, where necessary embedding, staining with the above orcein solution, counter-staining, mounting) evaluable for diagnostic purposes.

### Principle

Orcein belongs to the group of oxazine dyes and is especially recommended for staining of elastic fibers.

Orcein is also used for sex chromatin staining, nuclear staining and demonstration of hepatic inclusions, especially of hepatitis B antigen.

### Sample material

Sections of formalin-, Zenker's solution-, Bouin's solution-, or acetone-fixed, paraffin-embedded tissue (3 - 5 µm thick paraffin sections) or cell smears are used as starting material.

### Reagents

Cat. No. 107100

Orcein for microscopy Certistain® 5 g, 25 g

Color Index No.: 1242 (1st ed.)

Color Index Name: Neutral red 28

### Also required:

Art. 100314 Hydrichloric acid fuming 37% EMPROVE® exp Ph Eur,BP,JP,NF 1 l, 2,5 l

Art. 100974 Ethanol denatured with about 1 % methyl ethyl ketone for analysis EMSURE® 1 l, 2,5 l

Cat. No. 105175 Hematoxylin solution modified acc. to Gill II for microscopy 500 ml, 2,5 l

### Sample preparation

The sampling must be performed by qualified personnel.

All samples must be treated using state-of-the-art technology.

All samples must be clearly labeled.

Suitable instruments must be used for taking samples and their preparation.

Follow the manufacturer's instructions for application / use.

Deparaffinize and rehydrate sections in the conventional manner.

### Reagent preparation

#### Ethanol 70 %

For preparation of approx. 100 ml solution mix:

Ethanol	70 ml
Distilled water	30 ml
mix	

#### Orcein solution

For preparation of approx. 100 ml solution mix and dissolve:

Ethanol 70 %	99 ml
Hydrichloric acid fuming	1 ml
add and mix	
Orcein Certistain®	0.4 g
add, dissolve, and filter	

The freshly prepared staining solution should be filtered before use.

### Procedure

#### Staining in the staining cell

Deparaffinize histological slides in the conventional manner and rehydrate in a descending alcohol series.

The slides should be allowed to drip off well after the individual staining steps, as a measure to avoid any unnecessary cross-contamination of solutions.

The stated times should be adhered to to guarantee an optimal staining result.

Slide with histological specimen	
Distilled water	1 min
Orcein solution	30 min
Distilled water	rinse
Hematoxylin solution modified acc. to Gill II	30 sec
Running tap water	30 sec
Ethanol 95 %	1 min
Ethanol 95 %	1 min
Ethanol 100 %	1 min
Ethanol 100 %	1 min
Xylene	5 min
Xylene	5 min
Mount the the xylene-wet slides with e.g. Entellan® new and cover glass.	

After dehydration (ascending alcohol series) and clearing with xylene, histological samples can be mounted with water-free mounting agents (e.g. Neo-Mount®, Entellan®, DPX new or Entellan® new) and a cover glass and can then be stored.

The use of immersion oil is recommended for the analysis of stained slides with a microscopic magnification >40x.

### Result

Elastic fibers	red-brown
Nuclei	dark blue to dark violet
Collagen	colorless

### Technical notes

The microscope used should meet the requirements of a medical diagnostic laboratory.

When using histoprocessors and automatic staining systems, please follow the instructions for use supplied by the supplier of the system and software.

The freshly prepared staining solutions should be filtered before use.

Remove surplus immersion oil before filing.

### Diagnostics

Diagnoses are to be made only by authorized and trained personnel.

Valid nomenclatures must be used.

Further tests must be selected and implemented according to recognized methods.

Suitable controls should be conducted with each application in order to avoid an incorrect result.

### Storage

Store Orcein - for microscopy Certistain® at +5 °C to +30 °C.

### Shelf-life

Orcein - for microscopy Certistain® can be used until the stated expiry date.

After first opening of the bottle, the contents can be used up to the stated expiry date when stored at +5 °C to +30 °C.

The bottles must be kept tightly closed at all times.

### Additional instructions

#### For professional use only.

In order to avoid errors, the application must be carried out by qualified personnel only.

National guidelines for work safety and quality assurance must be followed.

Microscopes equipped according to the standard must be used.

### Protection against infection

Effective measures must be taken to protect against infection in line with laboratory guidelines.

### Instructions for disposal

The package must be disposed of in accordance with the current disposal guidelines.

Used solutions and solutions that are past their shelf-life must be disposed of as special waste in accordance with local guidelines. Information on disposal can be obtained under the Quick Link "Hints for Disposal of Microscopy Products" at [www.microscopy-products.com](http://www.microscopy-products.com). Within the EU the currently applicable REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing. Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 applies.

## Auxiliary reagents

Cat. No.	100314	Hydrochloric acid fuming 37% EMPROVE® exp Ph Eur,BP,JP,NF	1 l, 2.5 l
Cat. No.	100496	Formaldehyde solution 4%, buffered, pH 6.9 (approx. 10% Formalin solution) for histology	350 ml and 700 ml (in bottle with wide neck), 5 l, 10 l, 10 l Tritripac®
Cat. No.	100869	Entellan® new for cover slipper for microscopy	500 ml
Cat. No.	100974	Ethanol denatured with about 1 % methyl ethyl ketone for analysis EMSURE®	1 l, 2.5 l
Cat. No.	103699	Immersion oil acc. to ISO 8036 for microscopy	100-ml dropping bottle
Cat. No.	104699	Immersion oil for microscopy	100-ml dropping bottle, 100 ml, 500 ml
Cat. No.	105175	Hematoxylin solution modified acc. to Gill II for microscopy	500 ml, 2.5 l
Cat. No.	107164	Paraffin pastilles solidification point about 56-58°C for histology	10 kg (4x 2.5 kg)
Cat. No.	107961	Entellan® new rapid mounting medium for microscopy	100 ml, 500 ml, 1 l
Cat. No.	108298	Xylene (isomeric mixture) for histology	4 l
Cat. No.	111609	Histosec® pastilles solidification point 56-58°C embedding agent for histology	1 kg, 10 kg (4x 2.5 kg), 25 kg
Cat. No.	115161	Histosec® pastilles (without DMSO) solidification point 56-58°C embedding agent for histology	10 kg (4x 2.5 kg), 25 kg

## Hazard classification

Cat. No. 107100

Please observe the hazard classification printed on the label and the information given in the safety data sheet.

The safety data sheet is available on the website and on request.

## Main components of the product

Cat. No. 107100

C.I. 1242 (1st ed.)

NaCl	>50 %
Orcein	<50 %
H <sub>2</sub> O	n.q.

## Other IVD products

Cat. No.	100579	DPX new non-aqueous mounting medium for microscopy	500 ml
Cat. No.	100820	Methenamine silver plating kit acc. to Gomori for the detection of argent-affine structures in histological tissue	1 set
Cat. No.	103999	Formaldehyde solution min. 37% free from acid stabilized with about 10% methanol and calcium carbonate for histology	1 l, 2.5 l, 25 l
Cat. No.	109016	Neo-Mount® anhydrous mounting medium for microscopy	100-ml dropping bottle, 500 ml
Cat. No.	109843	Neo-Clear® (xylene substitute) for microscopy	5 l

## Literature

1. Romeis - Mikroskopische Technik, Editors: Mulisch, Maria, Welsch, Ulrich, 2015, Springer-Verlag Berlin Heidelberg
2. Theory and Practice of Histological Techniques, John D Bancroft and Marilyn Gamble, 6th Edition
3. Conn's Biological Stains: A Handbook of Dyes, Stains and Fluorochromes for Use in Biology and Medicine, 10th Edition, (ed. Horobin, R.W. and Kiernan, J.A). Bios, 2002



Consult instructions  
for use



Manufacturer



Catalog number



Batch code



Caution, consult  
accompanying documents



Use by  
YYYY-MM-DD



Temperature  
limitation

Status: 2018-07-16

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