

1.00199.0500

Microscopy

Picrofuchsin solution acc. to van Gieson

for microscopy

For professional use only



In Vitro Diagnostic Medical Device



Intended purpose

This "Picrofuchsin solution acc. to van Gieson - for microscopy" is used for human-medical cell diagnosis and serves the histological investigation of sample material of human origin. It is a ready-to-use staining solution designed to enhance the visibility of target structures (by fixing, embedding, staining, counterstaining, mounting) in human-histological specimen materials, for example histological sections of e.g. the heart or the uterus in combination with other in vitro diagnostica from our portfolio. Unstained structures are relatively low in contrast and are extremely difficult to distinguish under the light microscope. The images created using the staining solutions help the authorized and qualified investigator to better define the form and structure in such cases. Further examinations may be necessary to reach a definitive diagnosis.

Principle

Picrofuchsin solution acc. to van Gieson is used for staining collagenous connective tissue, muscle tissue, and cornified epithelium; it can also be used to stain glia fibrils and cytoplasm. Fuchsin and picric acid, the two ingredients of the solution, stain the various tissue structures simultaneously and selectively. Collagenous fibers assume a vibrant red color, muscle tissue and glia fibrils are stained yellow, amyloid, hyaline, colloid, and mucus are stained in gradations of color between red and yellow.

Staining with Weigert's iron hematoxylin kit - for nuclear staining in histology, Cat. No. 115973, is advised to produce a stable and persistent stain of the nuclei.

Picrofuchsin solution acc. to van Gieson can also be used in combination with ELASTIN staining solution acc. to Weigert - for microscopy, Cat. No. 100591, in the van Gieson elastica staining method to detect elastic fibers in histological sections.

Sample material

Starting materials are sections of formalin- or Bouin-fixed tissue embedded in paraffin (3 µm thick paraffin sections).

Reagents

Cat. No. 1.00199.0500

Picrofuchsin solution acc. to van Gieson for microscopy 500 ml

Also required:

for nuclei staining:

Cat. No. 115973 Weigert's iron hematoxylin kit for nuclear staining in histology 2 x 500 ml

for detection of elastic fibers:

Cat. No. 100591 ELASTIN staining solution acc. to Weigert for microscopy 500 ml

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.

When using the corresponding auxiliary reagents, the corresponding instructions for use must be observed.

Deparaffinize and rehydrate sections in the conventional manner.

Reagent preparation

The Picrofuchsin solution acc. to van Gieson used for staining is ready-to-use, dilution of the solution is not necessary and merely produces a deterioration of the staining result and its stability.

Weigert's iron hematoxylin staining solution

Mix reagent 1 and 2 (Weigert's solution A and Weigert's solution B of Weigert's iron hematoxylin kit, Cat. No. 115973) in the ratio 1 + 1.

The prepared staining solution remains stable for approx. one working week.

The solution must be exchanged as soon as the cell nuclei appear brown.

van Gieson's staining

(nuclei staining)

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 in order to guarantee an optimal staining result.

Slide with histological specimen	
Weigert's iron hematoxylin staining solution	5 min
Running tap water	3 min
Picrofuchsin solution acc. to van Gieson	30 sec
Distilled water	30 sec
Ethanol 96 %	30 sec
Ethanol 96 %	30 sec
Ethanol 100 %	1 min
Ethanol 100 %	1 min
Xylene	5 min
Xylene	5 min
Mount the xylene-wet slides with Entellan® new and cover glass.	

After dehydration (ascending alcohol series) and clarification with xylene, histological samples can be mounted with the mounting agent Entellan® new and a cover glass and can then be stored.

Result

Nuclei	black-brown
Collagen	red
Muscle, glia fibrils	yellow
Colloid, mucus, hyaline, amyloid, cornified epithelium	yellow to red

Trouble-shooting

"Bleeding" of the specimens

Non-aqueous mounting agents such as, Neo-Mount®, Eukitt® and others may result in the phenomenon of "bleeding" of the specimens.

Mounting should hence be performed using Entellan® or Entellan® new.

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.

Diagnostics

Diagnoses are to be made only by authorized and qualified personnel. Valid nomenclatures must be used.

This method can be supplementarily used in human diagnostics. 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 Picrofuchsin solution acc. to van Gieson - for microscopy at +15 °C to +25 °C.

Shelf-life

Picrofuchsin solution acc. to van Gieson - for microscopy can be used up to the stated expiry date.

After first opening of the bottle, the contents can be used up to the stated expiry date when stored at +15 °C to +25 °C.

The bottles must be kept tightly closed at all times.

The prepared Weigert's iron hematoxylin staining solution remains stable for approx. one working week.

The solution must be exchanged as soon as the cell nuclei appear brown.

Capacity

approx. 500 stainings / 500 ml.

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. 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. 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 Titripac®
Cat. No. 100591	ELASTIN staining solution acc. to Weigert 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 Type N acc. to ISO 8036 for microscopy	100-ml dropping bottle
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. 104699	Immersion oil for microscopy	100-ml dropping bottle, 100 ml, 500 ml
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
Cat. No. 115973	Weigert's iron hematoxylin kit for nuclear staining in histology	2x 500 ml

Hazard classification

Cat. No. 1.00199.0500

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. 1.00199.0500

C.I.42685	1 g/l
C ₆ H ₃ N ₃ O ₇	16.6 g/l

Other IVD products

Cat. No. 100408	ISOSLIDE® PAS Control Slides with reference tissue for the detection of polysaccharides in histological tissue	25 tests
Cat. No. 102561	ISOSLIDE® Congo Red Control Slides with reference tissue for the detection of amyloid structures in histological tissue	25 tests
Cat. No. 105174	Hematoxylin solution modified acc. to Gill III for microscopy	500 ml, 1 l, 2.5 l
Cat. No. 132755	ISOSLIDE® EVG Control Slides with reference tissue for the detection of elastic fibers in histological tissue	25 tests

General remark

If during the use of this device or as a result of its use, a serious incident has occurred, please report it to the manufacturer and/or its authorised representative and to your national authority.

Literature

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3. Histotechnik, Gudrun Lang, 2013 Springer Verlag, 2. Auflage
4. Theory and Practice of Histological Techniques, John D Bancroft, Marilyn Gamble, 2008, Churchill Livingstone ELSEVIER, 6th Edition
5. Laboratory Manual of Histochemistry, Linda L. Vacca, 1985, Raven Press
6. Basiswissen Histologie und Zytologie, Karl Heinz Stein, Hellmut Flenker, 1998, uZv, 2. Auflage
7. Histological & Histochemical Methods: Theory & Practice, J. A. Kiernan, 1990, Pergamon Press, 2nd Edition
8. Histological and Histochemical Methods, Theory and practice, J. A. Kiernan, 2015, Scion Publishing Ltd, 5th Edition
9. Conn's Biological Stains, R.W. Horobin, J.A. Kiernan, 2002, Biological Stain Commission Publication, 10th Edition



Consult instructions for use



Manufacturer



Catalog number



Batch code



Caution, consult accompanying documents



Use by YYYY-MM-DD



Temperature limitation

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