1.04022.0025

Microscopy

Fast Green FCF (C.I. 42053)

for microscopy Certistain®

IVD In Vitro Diagnostic Medical Device

CE

for modified connective tissue staining acc. to van Gieson in histological sections

This staining dye "Fast Green FCF (C.I. 42053) - 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 (by fixing, where necessary embedding, staining with the above Fast Green solution, counterstaining, mounting) in histological specimen materials, for example histological sections of e.g. the liver, the kidney, the intestine, the placenta and similar, evaluable for diagnostic purposes.

Principle

Fast Green FCF belongs to the triarylmethane dyes.

The staining dye is used for several staining methods such as trichrome staining acc. to Masson, for counterstaining, instead of light green SF in Papanicolaous staining and additionally for histochemical staining.

Sample material

Starting materials are sections of formalin-fixed tissue embedded in paraffin (3 - 4 µm thick paraffin sections).

Reagents

Cat. No. 1.04022.0025

Fast Green FCF (C.I. 42053) for microscopy Certistain® 25 g

Color Index No.: 42053
Color Index Name: Food green 3

Also required:

Cat. No.	100063	Acetic acid (glacial) 100% anhydrous for analysis EMSURE® ACS,ISO,Reag. Ph Eur	1 l, 2.5 l
Cat. No.	105231	Fuchsin acid (C.I. 42685) for microscopy Certistain®	25 g
Cat. No.	115973	Weigert's iron hematoxylin kit for nuclear staining in histology	2x 500 ml
Cat. No.	P6744	Picric acid solution - 1.3 % in H_2O (saturated)	Sigma

Sample prepration

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

Acetic acid solution 1 %

For preparation of approx. 100 ml solution mix:

Acetic acid 100%	1 ml
Distilled water	99 ml
mix	

Weigert's iron hematoxylin staining solution

Mix reagent 1 and 2 (Weigert's solution A and Weigert's solution B) 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.

Fast Green solution 0.1 %

For preparation of approx. 100 ml solution mix:

Fast Green FCF (C.I. 42053) Certistain®	0.1 g
Acetic acid solution 1 %	100 ml
dissolve and filter	

Fuchsin acid solution 0.2 %

For preparation of approx. 100 ml solution mix:

Fuchsin acid (C.I. 42685) Certistain®	0.2 g
Picric acid - saturated solution	100 ml
dissolve and filter	

The freshly prepared staining solutions 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 paraffin section	
Distilled water	1 min
Weigert's iron hematoxylin staining solution	5 min
Running tap water	5 min
Fast Green solution 0.1 %	4 min
Acetic acid solution 1 %	rinse
Fuchsin acid solution 0.2 %	10 - 15 min
Acetic acid solution 1 %	2 min
Ethanol 96 %	1 min
Ethanol 96 %	1 min
Ethanol 100 %	1 min
Ethanol 100 %	1 min
Xylene	1 min
Xylene	1 min
Mount the xylene-wet slides with 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. Entellan® new) and a cover glass and and can then be stored.

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

Result

Cell nuclei	dark blue, black
Connective tissue	red
Muscle	grey-green
Cytoplasm	grey-green
Erythrocytes	green

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 Fast Green FCF (C.I. 42053) - for microscopy Certistain® at +5 °C to +30 °C.

Shelf-life

Fast Green FCF (C.I. 42053) - 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.

If stored at +15°C to +25 °C, the freshly prepared Weigert's iron hematoxylin staining solution can be used for minimum one working week.
The solution must be exchanged as soon as the cell nuclei appear brown. However, the solutions should be discarded when contaminations (e.g. bacteria, fungi), that occur at times, are observed.

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.	100063	Acetic acid (glacial) 100% anhydrous for analysis EMSURE® ACS, ISO, Reag. Ph Eur	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 wide neck bottle), 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.	104699	Immersion oil for microscopy	100-ml dropping bottle, 100 ml, 500 ml
Cat. No.	105231	Fuchsin acid (C.I. 42685) for microscopy Certistain®	25 g
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 soldification 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) soldification 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
Cat. No.	P6744	Picric acid solution - 1.3 % in H_2O (saturated)	Sigma

Hazard classification

Cat. No. 1.04022.0025

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. 1.04022.0025

C.I. 42053
$C_{37}H_{34}N_2Na_2O_{10}S_3$
M = 808.86 g/mol

Other IVD products

Cat. No.	100199	Picrofuchsin solution acc. van Gieson for microscopy	500 ml
Cat. No.	100579	DPX new non-aqueous mounting medium for microscopy	500 ml
Cat. No.	101646	PAS staining kit for detection of aldehyde and mucosubstances	2x 500 ml
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
Cat. No.	115974	Elastica van Gieson staining kit for connective tissue	4x 500 ml

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: 2017-06-26

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