

CELLAVISION

RAL Diagnostics

*Your guide to staining*

# **PRODUCT CATALOG**

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Our Mission

**To advance laboratory  
workflow and diagnostic  
certainty through  
intelligent microscopy.**



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**CELLAVISION**  
**RAL Diagnostics**



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# A century of innovation in the service of diagnostics

Founded in **1916** by two colleagues of **Louis Pasteur, Pr. Roux** and **Pr. Legroux**, alongside **Mr. Agulhon**, director of Kuhlman Industries, RAL Diagnostics has its roots in **French scientific history**.

In **1960**, RAL Diagnostics joined the **Rhône-Poulenc group** (now Aventis) as part of its healthcare division before becoming independent in 1996. It then set up its production facilities in Martillac, in southwestern France, where it manufactures a wide range of dyes and reagents for medical and industrial use.

For nearly a century, RAL Diagnostics has been manufacturing high-quality organic dyes, cementing its **leadership position in the French market**. In 2011, it diversified its offering by launching its **own range of staining instruments**, suitable for healthcare facilities and laboratories of all sizes.

In 2019, RAL Diagnostics joined the Swedish group **CellaVision**, the global leader in digital solutions for medical microscopy in hematology, and became **CellaVision - RAL Diagnostics**. This alliance strengthens the company's position as a global player in diagnostics.

## Innovative staining solutions for medical and industrial diagnostics

CellaVision – RAL Diagnostics develops and manufactures dyes that enable the **identification of the morphology of cells, tissues, bacteria, and parasites**, which are essential for the diagnosis of many human and animal diseases.

We also offer a range of specialized **dyes for industrial use**.

A **key player in the fight against tuberculosis and malaria**, CellaVision - RAL Diagnostics has developed a range of products that **comply with the guidelines of the WHO** (World Health Organization) **and the UICTMR** (International Union Against Tuberculosis and Lung Disease).

In **2010**, CellaVision - RAL Diagnostics launched **MCDh, the first methanol-free, high-definition biological stain for hematology, specifically developed for digital image analysis**. A patent has been filed for this high-tech product.

Since 2011, CellaVision - RAL Diagnostics has been offering a more comprehensive solution for in vitro diagnostics.

With the launch of its Instruments business, CellaVision - RAL Diagnostics aims to:

- **Automate and standardize the staining process for a productive workflow,**
- **Optimize the performance of medical laboratories seeking qualitative diagnosis,**
- **Improve the safety of our users.**

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# Commitment to quality, environment and regulatory compliance

Most of our products are **CE marked** and comply with the requirements of numerous local regulations (USA, China, Russia, Saudi Arabia, etc.). The quality and environment management system of CellaVision - RAL Diagnostics is **certified by the LNE** for the design, manufacture, and marketing of specialized chemicals, staining reagents, and medical analysis instruments in accordance with the following standards:

- **NF EN ISO 14001 : 2015,**
- **NF EN ISO 9001 : 2015 (LNE),**
- **NF EN ISO 9001 : 2015 (G-MED),**
- **ISO 13485 : 2016 regulatory requirements applicable to medical devices.**
- **ISO 14001: 2025 (LNE)**

CellaVision - RAL Diagnostics has been ISO **9001** certified since December 2000 and ISO **13485** certified since March 2010. U.S. FDA: The CellaVision - RAL Diagnostics manufacturing facility is registered with the FDA.



These certifications attest to our compliance with legal and regulatory requirements, guaranteeing our customers high-quality products.

For the second year in a row, CellaVision RAL Diagnostics has been awarded the EcoVadis Bronze Medal with an improved overall score, recognizing the strength and consistency of its corporate social responsibility commitments.

This recognition is based on a thorough assessment of our practices across four key areas: Environment, Labor & Human Rights, Ethics, and Sustainable Procurement, and reflects our ongoing commitment to continuous improvement and sustainable progress.



# Industrial expertise and controlled safety

With more than 4,000 m<sup>2</sup> of fully equipped production space spread across four buildings, CellaVision - RAL Diagnostics manufactures more than **1.2 million liters of dedicated reagents each year.**

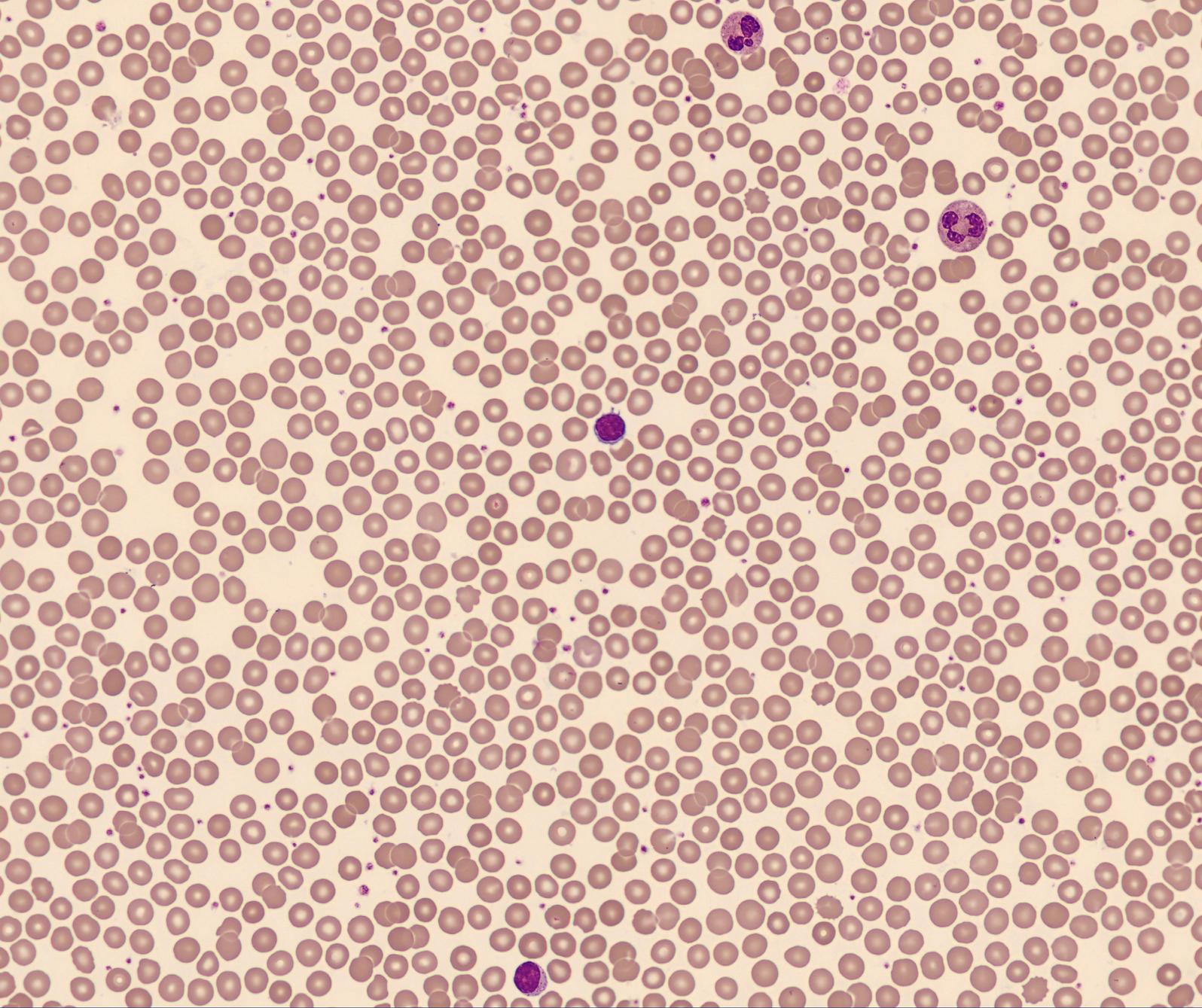
We synthesize **15 strategic powders** and produce **150 different solutions**, using stainless steel or plastic tanks and enameled glass reactors. Our automated and semi-automated packaging lines are equipped with high-performance filtration systems tailored to each type of product.

Thanks to **constant investment** and a high level of expertise, we have developed genuine know-how in the manufacture of reagents in environments with high safety requirements, both for personnel and infrastructure.

We also specialize in the **preparation and shipment of flammable and hazardous products worldwide**, in compliance with international regulations.

To strengthen our industrial capabilities, we recently installed a **second 7-ton reactor**, enabling a **closed-loop manufacturing process**. This technological redundancy ensures optimal safety for operators and increased robustness for our facilities.

CellaVision - RAL Diagnostics continues its industrial development with **innovative production tools** to provide long-term support to medical diagnostics professionals.



## 2 | HEMATOLOGY

Our hematology range has been designed for staining blood and bone marrow smears. It is suitable for both manual and automated methods, regardless of the size of the laboratory. It offers Romanowsky-type “gold” standards such as May-Grünwald Giemsa, Wright, and Wright-Giemsa stains, as well as innovative solutions such as MCDh staining, which combines quality, reproducibility, speed of technique, and user safety.

# MCDh™ staining

Romanowsky staining without methanol for blood smears



**Optimization for digital morphology**



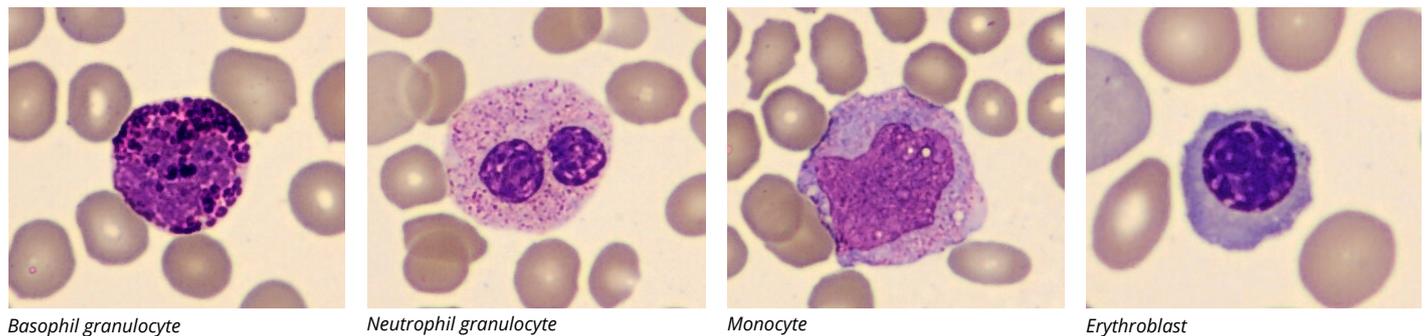
**Improving laboratory safety**



**Result standardization**

MCDh™ staining is a new generation of stains, formulated without methanol and designed for digital image analysis. This set of 4 ready-to-use reagents simplifies the staining steps. It guarantees a fast and standardized staining method while working in a much safer laboratory environment.

*MCDh staining with RAL Stainbox of peripheral blood smear, analysis DC1 instrument.*



Product	Reference	Packaging	Protocol duration
MCDh 1	313590-2500	2500 mL	<b>9 min 32 sec*</b>
MCDh 2	313570-2500	2500 mL	
MCDh 3	313560-2500	2500 mL	
MCDh 4	313600-2500	2500 mL	

\*From 9 min 32 sec to 11 min 30 sec according to protocol

# May-Grünwald Giemsa staining



Romanowsky staining for blood and bone marrow smears



**Contrast optimization for morphological reading**

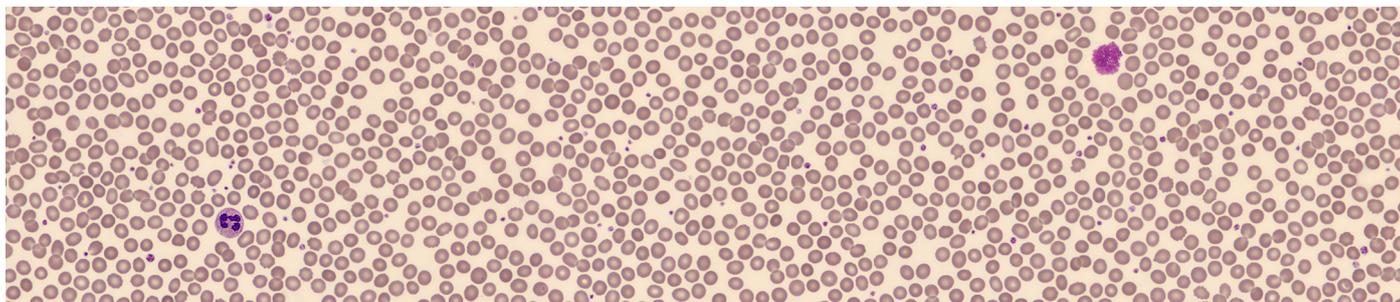


**Staining quality standardization**



**Reduced reagent consumption**

May-Grünwald Giemsa (MGG) staining is a Romanowsky-type stain that highlights blood and bone marrow cells. The formulation is suitable for manual use or in automated staining machines. It combines two dyes: May-Grünwald and Giemsa.



MGG manual staining of peripheral blood smear from a patient with CLL

It is strongly recommended to use a pH buffer to avoid unpredictable and uncontrollable variations in coloration and ensure perfect reproducibility.



May-Grünwald Solution

Giemsa R Solution

Product	Reference	Packaging	Protocol duration
May-Grünwald Solution	320070-1000	1000 mL	<b>14 min 10 sec*</b>
	320070-2500	2500 mL	
Giemsa R Solution	320310-1000	1000 mL	
Solution tampon pH=7.0	330370-5000	5000 mL	
Ou Solution tampon pH=6.8	330368-5000	5000 mL	

\*From 14 min 10 sec to 1h 05 min according to protocol

# Rapid variations in Romanowsky staining



## Kit RAL 555 - Rapid staining Variation of May-Grünwald Giemsa

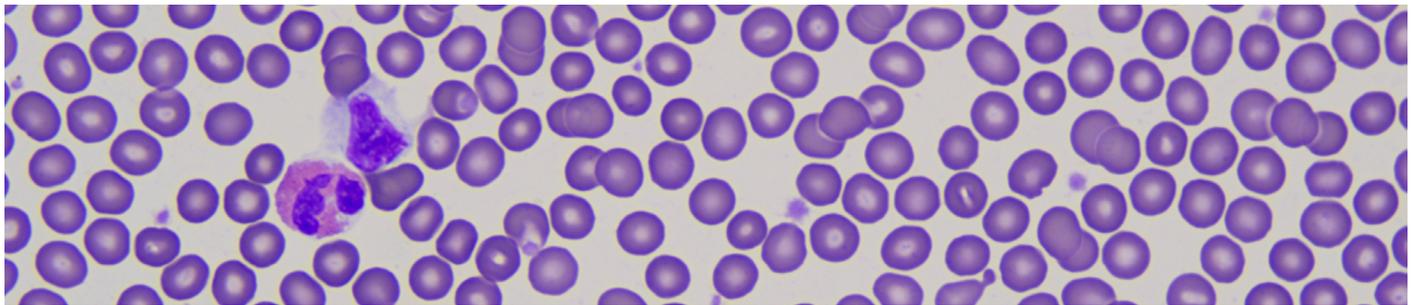


**Time-efficient procedure**



**Guaranteed reproducibility**

The RAL 555 kit is a rapid variant of Romanowsky staining. It is a versatile stain that can be used in hematology (bone marrow and blood smears), parasitology, histology, sperm analysis, and cytobacteriology.



*RAL 555 staining of peripheral blood smear*



*Kit RAL 555*

Product	Reference	Packaging	Protocol duration
Kit RAL 555	361550-0000	1 kit (3 x 100 mL)	15 sec

Estimated number of tests.....100 to 200 slides

Kit components			
FIX-RAL 555	362870-0100	100 mL	
Eosin-RAL 555	361640-0100	100 mL	
Blue-RAL 555	361650-0100	100 mL	

# Wright staining

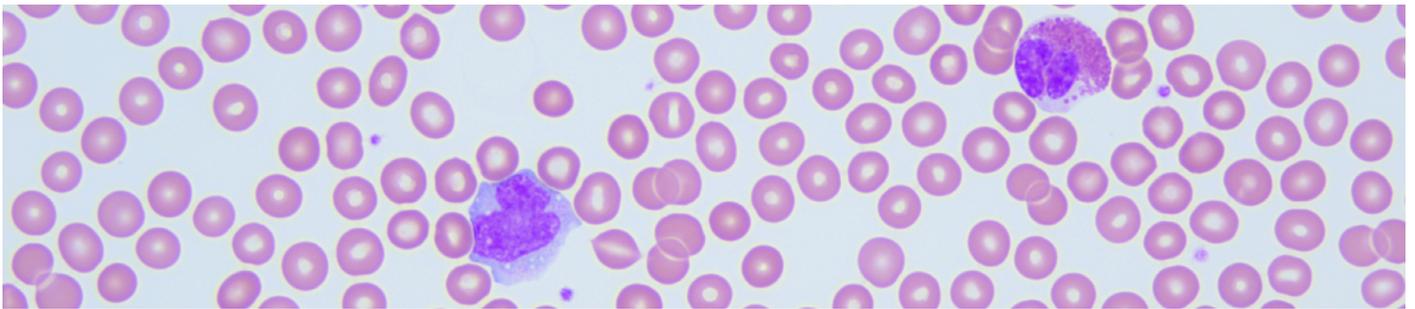


## Cytological evaluation of bone marrow and blood smears



**Result  
standardization**

Wright staining is a variant of Romanowsky staining, widely used in Anglo-Saxon countries. This solution is intended for use in the fixation and differential staining of cellular structures prior to microscopic examination.



Wright staining of peripheral blood smear (Obj. x50)



Wright Solution

Product	Reference	Packaging	Duration of the protocol
Wright Solution	320400-2500	2 500 mL	10 min

# Wright-Giemsa staining



Cytological evaluation of bone marrow and blood smears



**Result  
standardization**

Wright-Giemsa stain is a variant of Romanowsky stain and combines Wright and Giemsa stains. This solution is intended for use in fixing and differential staining of cell structures prior to microscopic examination.



Wright-Giemsa staining of peripheral blood smear, analysis with CellaVision® DC-1



Wright-Giemsa  
stain RAL

Product	Reference	Packaging	Duration of the protocol
Wright-Giemsa stain RAL	330211-2500	2 500 mL	<b>9 min 30 sec</b>

# Buffers

## The essential role of buffers in staining for medical diagnosis

Many biological reactions can only occur under specific pH conditions. Buffer solutions therefore play a **fundamental role in maintaining a stable pH**, which is essential for chemical or biological reactions to proceed smoothly.

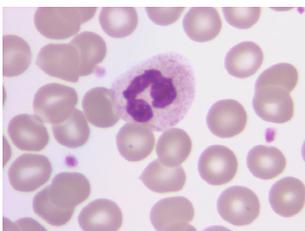
In the context of stains used in medical diagnostics, pH directly influences the affinity of dyes for cellular structures. The use of buffer solutions, in combination with staining reagents, thus allows for **optimal differentiation of the structures** to be observed before analysis under a microscope.

In hematology, dyes such as May-Grünwald, Giemsa, and Laveran Panchrome are neutral mixtures that are ineffective in an alcoholic medium. Their targeted action only occurs in the presence of a buffered aqueous solution, which is essential for effective differential staining of blood cells.

Hematology buffers are used at various stages of the protocol, particularly for dye dilution and sometimes during rinsing. Formulated with phosphates, our Buffer Solutions for Hematology are specially designed to ensure optimal dye stability, excellent rinsability, and safe use.

These buffer solutions are essential for ensuring consistent staining quality and perfect reproducibility of results.

To avoid any unpredictable variations in color rendering, the use of a pH-adjusted buffer is strongly recommended.



MGG staining  
with pH=6.8 buffer solution



MGG staining  
with pH=7.0 buffer solution



pH=6.8 buffer

pH=7.0 buffer

Product	Reference	Packaging
pH = 6.8 buffer solution for Hematology	330368-5000	5000 mL
pH = 7.0 buffer solution for Hematology	330370-5000	5000 mL

# Specific stainings in hematology



## Kit Myeloperoxidase, staining kit with alphanaphthol pyronine



**Result standardization**



**Improving laboratory safety**



**Time-efficient procedure**

The detection of myeloperoxidase activity is a **cytochemical test** used to distinguish acute myeloid leukemia (AML) from acute lymphoblastic leukemia (ALL). The test involves detecting peroxidase activity, which is only present in cells of the myeloid lineage.



*Kit RAL Myeloperoxidase staining of peripheral blood smear from a patient with LAM1*



*Kit Myeloperoxidase*

Product	Reference	Packaging	Protocol duration
Kit Myeloperoxidase	361610-0000	1 kit	10 min
Estimated number of tests.....			30 slides
<b>Kit components</b>			
Alphanaphthol solution	320750-0030	30 mL	
Formalin / Ethanol solution	310850-0125	125 mL	
Mayer haematoxylin	361620-0125	125 mL	
Pyronin, 0,2% in aqueous solution	361800-0125	125 mL	
Hydrogen peroxide 3%	300980-0010	10 mL	

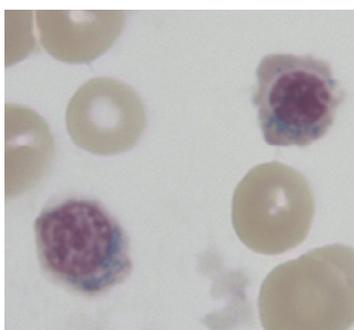
## Kit HemaPerls and Kit HistoPerls, Perls staining for the detection of hemosiderin, a pathological pigment (ferric salts-Prussian blue)



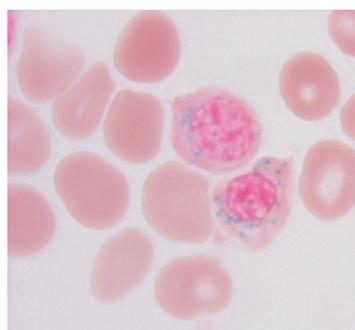
**Result  
standardization**

**Guaranteed  
reproducibility**

The HemaPerls and HistoPerls kits are used to detect the presence of a pathological pigment called hemosiderin. This pigment is found in the liver and bone marrow in diseases such as hemochromatosis, cirrhosis, and certain types of anemia.



Staining using the Kit HemaPerls



Staining using the Kit HistoPerls



Kit HemaPerls



Kit HistoPerls

Product	Reference	Pack.	Protocol duration
<b>Kit HemaPerls</b>	<b>362800-0000</b>	<b>1 kit</b>	<b>39 min</b>
Estimated number of tests.....			50 slides
<b>Kit components</b>			
Mayer Hematoxylin	361620-0100	100 mL	
Acid buffer and potassium ferrocyanide	361955-0005	10 x 5 mL	
<b>Kit HistoPerls</b>	<b>361850-0000</b>	<b>1 kit</b>	<b>40 min</b>
Estimated number of tests.....			50 slides
<b>Kit components</b>			
Nuclear red solution	320910-0100	100 mL	
Acid buffer and potassium ferrocyanide	361955-0005	10 x 5 mL	

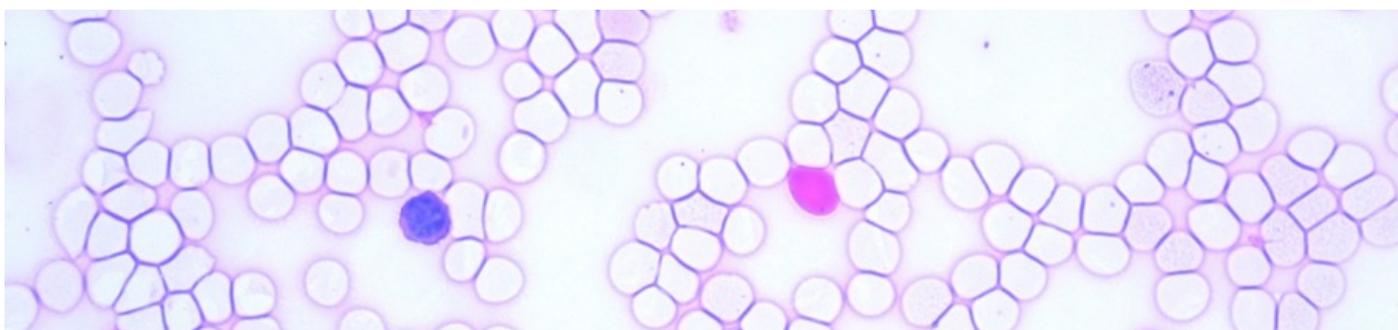
**Kit RAL Kleihauer-Betke,  
Fixation and differential staining for the detection of fetal red blood cells**



**Result  
standardization**

**Improving  
laboratory safety**

The RAL Kleihauer-Betke staining kit is intended for use in fixation and differential staining for the detection of fetal red blood cells prior to microscopic examination.



*RAL Kleihauer-Betke manual staining of peripheral blood smear from a patient with fetal red blood cells (Obj. x40)*

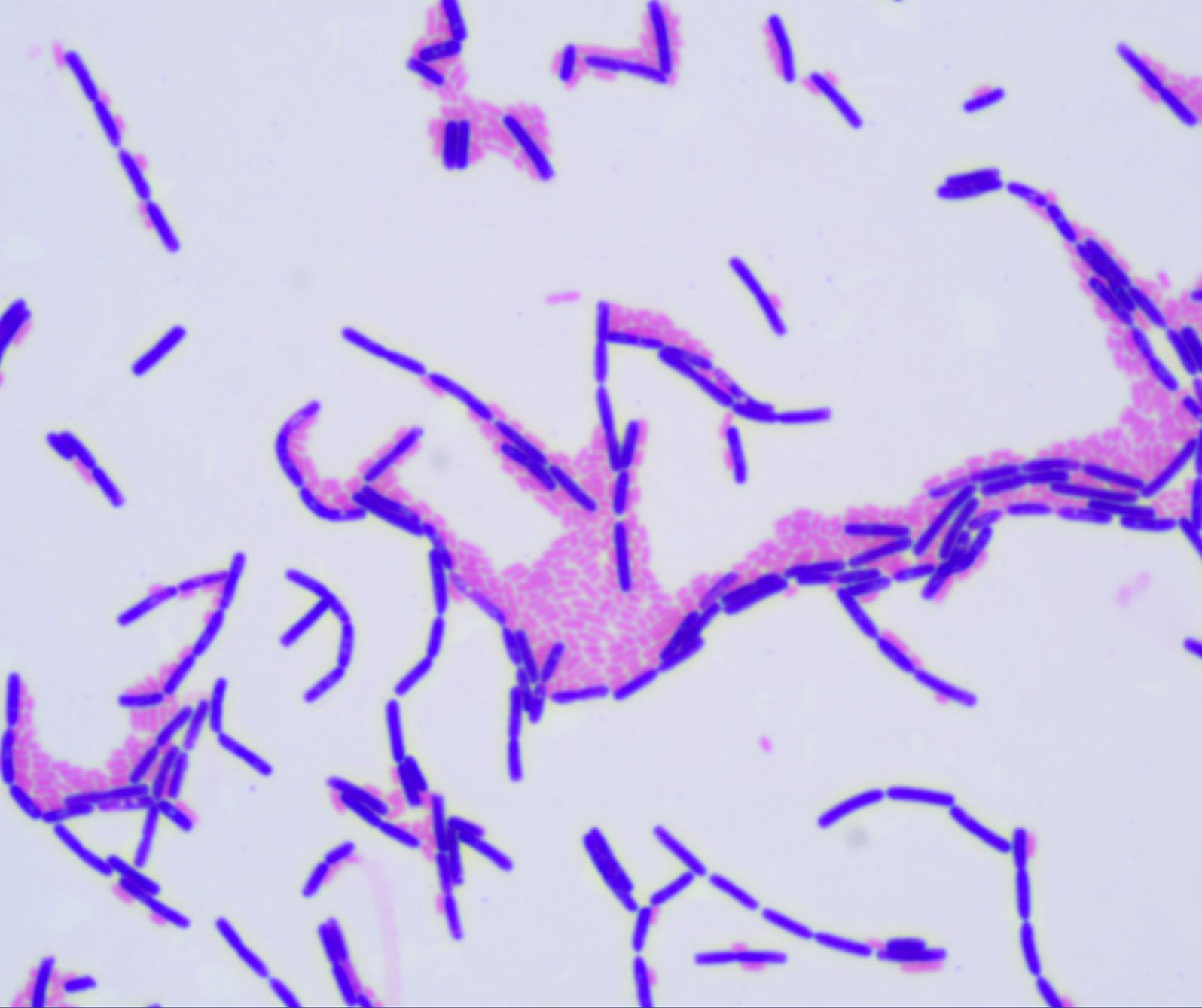


*Kit RAL Kleihauer-Betke*

Product	Reference	Pack.	Protocol duration
<b>Kit RAL Kleihauer-Betke</b>	<b>361000-0000</b>	<b>1 kit</b>	<b>13 min</b>
Estimated number of tests.....			500 slides
<b>Kit components</b>			
RAL Kleihauer-Betke Fixative	313000-1000	1000 mL	
RAL Kleihauer-Betke Eluting Solution	313010-1000	1000 mL	
RAL Kleihauer-Betke Stain	313030-1000	1000 mL	
RAL Kleihauer-Betke Counterstain	313020-1000	1000 mL	

## Bottles and powders sold individually

Product	Reference	Packaging
Eosin RAL 555	361640-1000	1000 mL
Eosin RAL 555	361640-2500	2500 mL
Blue RAL 555	361650-1000	1000 mL
Blue RAL 555	361650-2500	2500 mL
Fix-RAL 555	362870-1000	1000 mL
Fix-RAL 555	362870-2500	2500 mL
Brilliant Cresyl Blue	310750-0125	125 mL
Technical Methylene Blue	363130-9025	25 Kg
Eosin Y	312710-9025	25 Kg

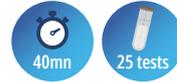


## 3 | BACTERIOLOGY

Bacteriology, through its various matrices and applications, requires a range of stains to enable reliable diagnosis.

Always attentive to your needs and sensitive to user safety, we offer a range of suitable and specific reagents that guarantee a quick and easy technique with high-quality results.

# Digestion and decontamination of samples for the research of mycobacteria



## Kit RAL TB Prep™

**Result standardization**

**Simplified and optimized protocol**

RAL TB Prep™ is a sample preparation kit for detecting mycobacteria, particularly those responsible for tuberculosis. This kit is designed to facilitate routine sample preparation techniques while ensuring reliable results.



Sample digestion & decontamination step from the Kit RAL TB Prep™



Kit RAL TB Prep™

Product	Reference	Packaging	Protocol duration
Kit RAL TB Prep™	360000-0000	1 kit	40 min

Estimated number of tests.....25

Kit components			
TB Prep Solution	360021-0125	2 x 125 mL	
TB Prep NALC	300012-0040	25 x 40 mg	
TB Prep Buffer	360010-0050	25 x 50 mL	

# Gram staining: differentiating between Gram-positive and Gram-negative bacteria

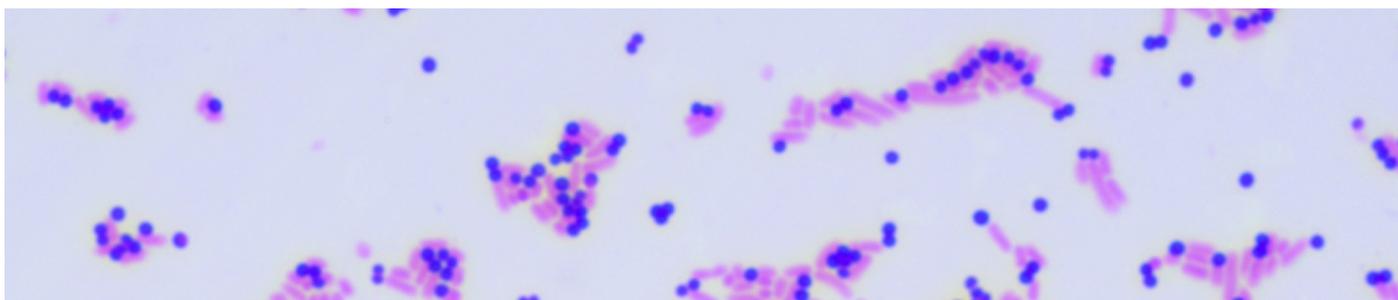


## Gram-Nicolle staining

**Result standardization**

**Time-efficient procedure**

Gram-Nicolle staining is used for the differential staining of bacteria prior to microscopic examination. It is based on the different bacterial cell wall structures of Gram-positive and Gram-negative bacteria.



Gram-Nicolle staining of polybacterial culture with *S. aureus* and *E. coli*.

Product	Reference	Packaging	Protocol duration
Kit Gram-Nicolle	364320-0000	1 kit (4 x 240 mL)	2 min 32 sec

Estimated number of tests.....Until 300 slides

### Kit components

Carbolic gentian violet	364210-0240	240 mL
Lugol, PVP-stabilized solution	364210-0240	240 mL
Fast differentiator (alcohol / acetone)	361510-0240	240 mL
Ziehl carbolic fuchsin	364540-0240	240 mL



Kit Gram-Nicolle

# Gram staining: differentiating Gram-positive bacteria from Gram-negative bacteria

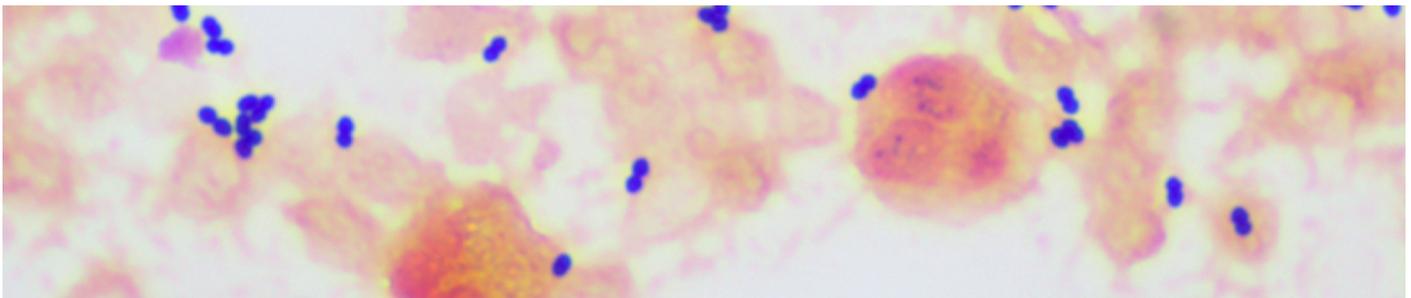


## Gram-Hücker staining

**Result standardization**

**Guaranteed reproducibility**

Gram-Hücker staining is based on the same principle as Gram-Nicolle staining. Here, Gentian Violet is replaced by Oxalate Crystal Violet and Ziehl's Fuchsin by Safranin, giving Gram-negative bacteria an orange color.



Gram-Hücker staining of a positive blood culture



Kit Gram-Hücker R



Kit Gram-Hücker L

Product	Reference	Packaging	Protocol duration
<b>Kit Gram-Hücker R, fast action</b>	<b>361520-0000</b>	<b>1 kit (4 x 240 mL)</b>	<b>2 min 32 sec</b>
Estimated number of tests.....			230 to 300 slides
<b>Kit components</b>			
Crystal violet oxalate*	361490-0240	240 mL	
Lugol, PVP-stabilized solution	367400-0240	240 mL	
Fast differentiator (alcohol / acetone)	361510-0240	240 mL	
Safranin	361500-0240	240 mL	
<b>Kit Gram-Hücker L, slow action</b>	<b>362860-0000</b>	<b>1 kit (4 x 240 mL)</b>	<b>2 min 50 sec</b>
Estimated number of tests.....			230 to 300 slides
Crystal violet oxalate*	361490-0240	240 mL	
Lugol, PVP-stabilized solution	367400-0240	240 mL	
Slow differentiator (alcohol based)	363030-0240	240 mL	
Safranin	361500-0240	240 mL	

\*From 2 min 32 sec to 2 min 50 sec according to protocol

# Other stainings in bacteriology



## Kit RAL 555 - Rapid variation of May-Grünwald Giemsa staining

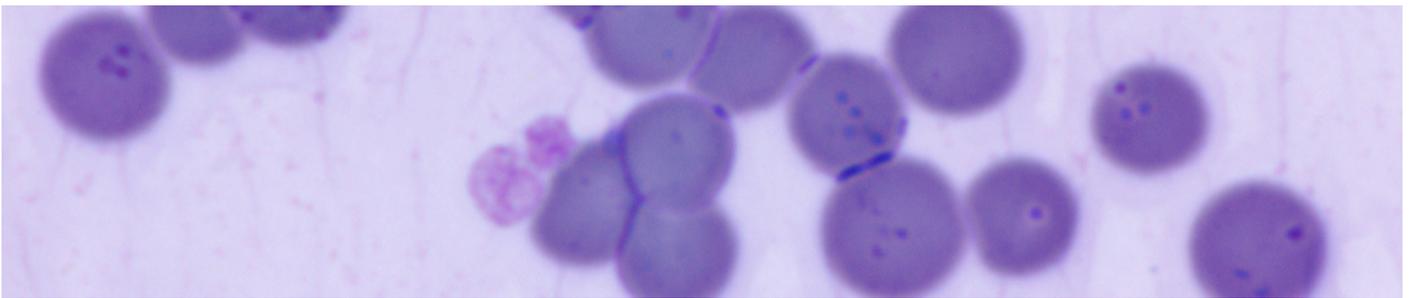


**Result  
standardization**



**Time-efficient  
procedure**

The RAL 555 kit is a rapid variant of Romanowsky staining. It is a versatile stain that can be used in hematology (bone marrow and blood smears), parasitology, histology, sperm analysis, and cytbacteriology.



*RAL 555 staining of a blood smear from a cat with hemobartonellosis*



*Kit RAL 555*

Product	Reference	Packaging	Protocol duration
Kit RAL 555	361550-0000	1 kit (3 x 100 mL)	22 sec ( <i>Helicobacter pylori</i> )
Estimated number of tests.....			until 200 slides
<b>Kit components</b>			
Fix-RAL 555	362870-0100	100 mL	
Eosin-RAL 555	361640-0100	100 mL	
Blue-RAL 555	361650-0100	100 mL	

# Mycobacterial staining



## Kit Fluo-RAL - Fluorescence staining

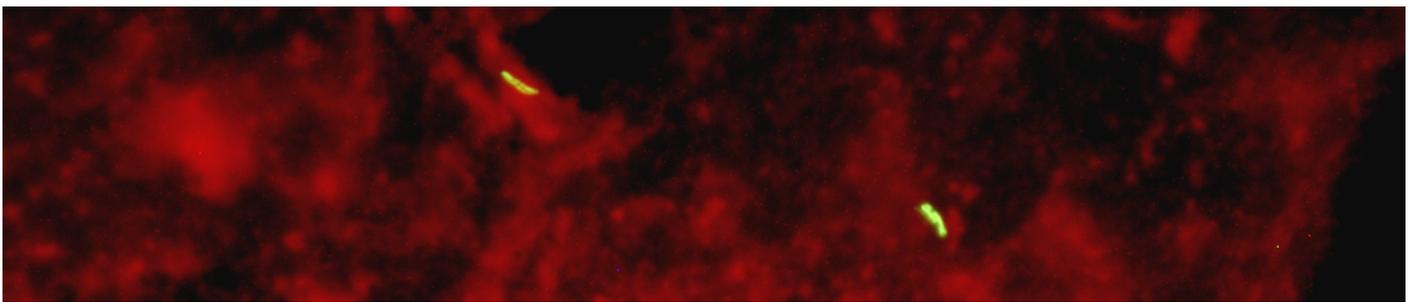


**Time-efficient procedure & result**



**Improving laboratory safety**

The Fluo-RAL kit is a three-step staining technique that uses fluorescence to quickly detect mycobacteria, also known as AFB (acid-fast bacilli).



Highlighting of mycobacteria using the Kit Fluo-RAL (Obj. x50)



Kit Fluo RAL

Product	Reference	Packaging	Protocol duration
<b>Kit Fluo-RAL</b>	<b>359000-0000</b>	<b>1 kit (2 x 250 mL + 4 x 125 mL)</b>	<b>4 min 30 sec*</b>
Estimated number of tests .....			150 to 200 slides
<b>Kit components</b>			
Fluo-RAL fixative	362115-0250	250 mL	
Auramine Fluo-RAL	362325-0125	125 mL	
Phenic solution for Fluo-RAL Auramine	362530-0125	125 mL	
Fluorescent RAL Degommier discoloration	362210-0250	250 mL	
Red Thiazine Fluo-RAL	362780-0125	125 mL	
Phenolic solution for Red Thiazine Fluo-RAL	362610-0125	125 mL	

\*From 4 min 30 sec to 32 min according to protocol

# Hot staining



## Ziehl-Neelsen staining, reference method



The ZN staining kit is intended for use in the differential staining of acid-fast bacilli. This kit allows Ziehl-Neelsen staining in accordance with WHO and IUATLD recommendations. This stain is ready to use and provides a reliable and reproducible diagnosis in 17 min 30 sec.



Highlighting of mycobacteria using the RAL ZN staining



RAL ZN staining kit (3 x 1L)

Product	Reference	Packaging	Protocol duration
RAL ZN Staining kit (3x1L)	365400-0000	1 kit	17min30sec
Estimated number of tests .....			400 to 600 slides
<b>Kit components</b>			
ZN Carbolic Fuchsin	365310-1000	1 x 1000 mL	
ZN Acid-Alcohol 3%	365320-1000	1 x 1000 mL	
ZN Methylene Blue 0.3%	365330-1000	1 x 1000 mL	

# Fast cold staining



## Kit Quick-TB

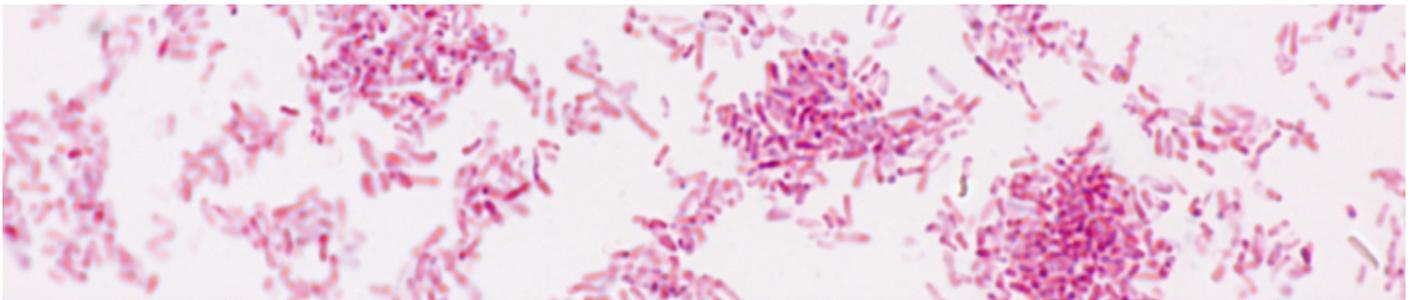


**Time-efficient procedure & result**



**Improving laboratory safety**

The Quick-TB kit is a two-step staining technique that enables rapid and reliable detection of mycobacteria, also known as acid-fast bacilli (AFB).



Staining of *M. gordonae* using the Kit Quick-TB



Kit Quick-TB

Product	Reference	Packaging	Protocol duration
Kit Quick-TB	361560-0000	1 kit	6 min
Estimated number of tests .....until 200 slides			
Kit components			
Armand solution	360100-0125	125 mL	
Carbolic Fuchsin RAL	365240-0125	125 mL	

# Cold staining



## Kit Cold-ZN

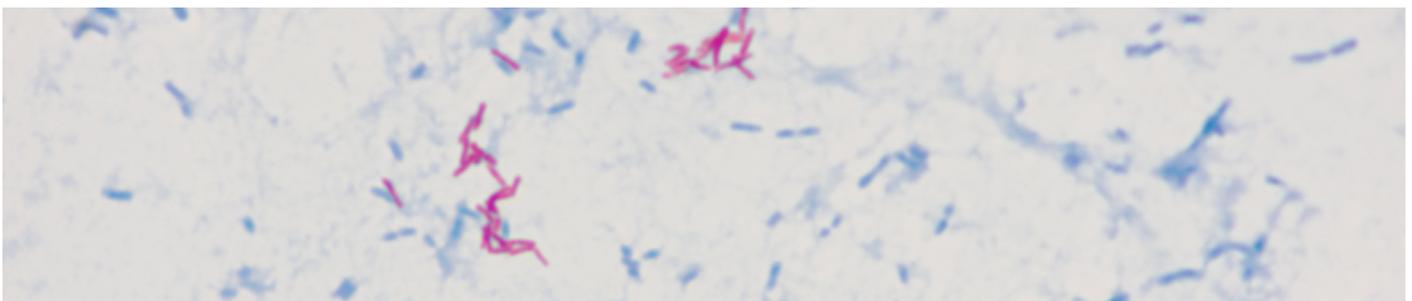


**Simplified and optimized protocol**



**Improving laboratory safety**

This kit enables cold staining of acid-fast bacilli (AFB) based on the traditional Ziehl-Neelsen method. This four-step method produces results similar to the hot ZN technique while protecting laboratory technicians from toxic fumes and tedious handling.



Highlighting of mycobacteria using the Kit Cold-ZN

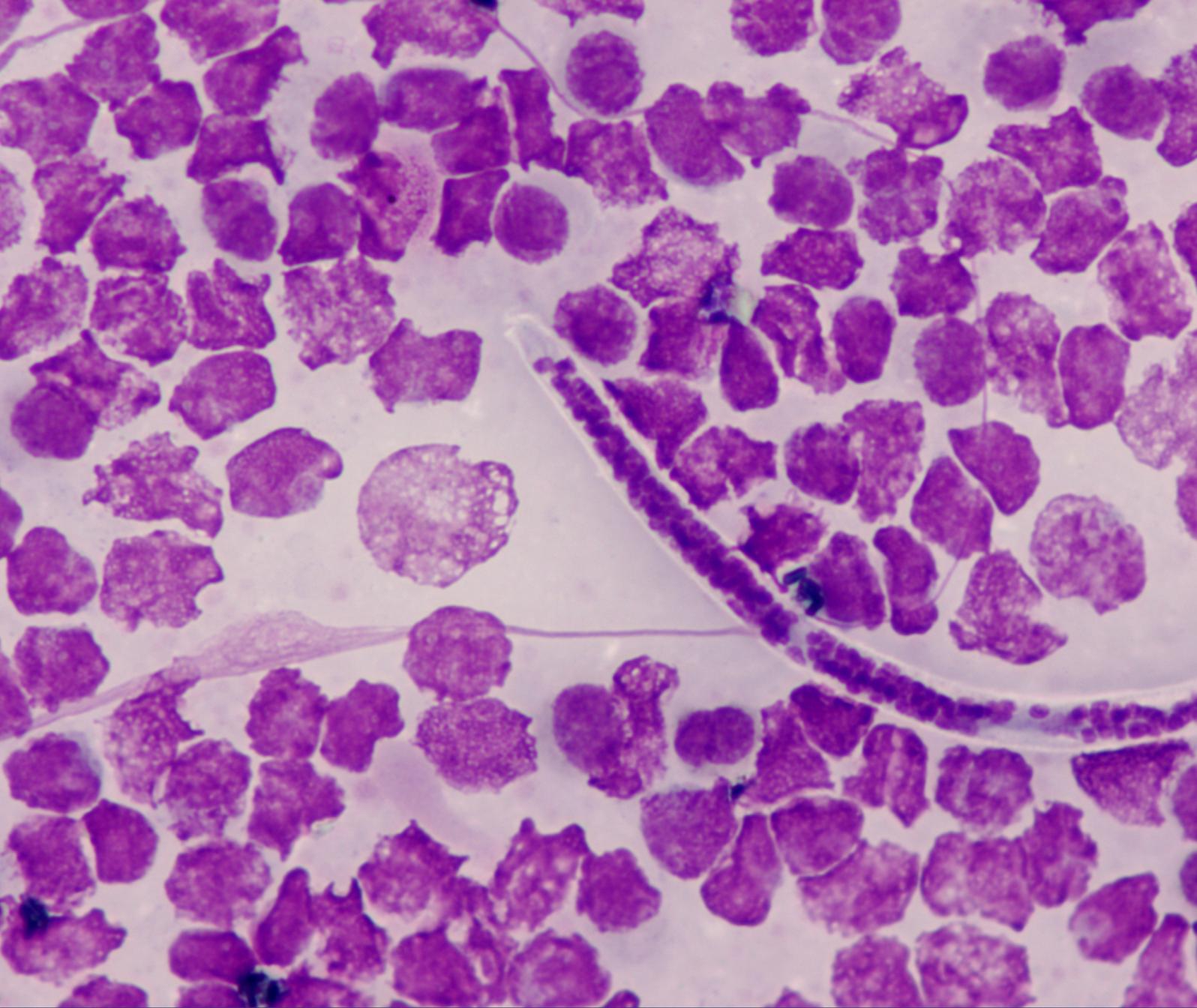


Kit Cold-ZN

Product	Reference	Packaging	Protocol duration
Kit Cold-ZN	362390-0000	1 kit	18 min 30 sec
Estimated number of tests .....until 150 slides			
<b>Kit components</b>			
Fixative	362120-0240	240 mL	
Fuchsin	365250-0240	240 mL	
Discoloring solution	362215-0240	240 mL	
Methylene blue	365340-0240	240 mL	

## Bottles and powders sold individually

Product	Reference	Packaging
Surefix	336000-0050	50 mL
Phenolic Gentian Violet	320960-1000	1000 mL
PVP-stabilized Lugol solution	367400-1000	1000 mL
Rapid Differentiator	361510-2500	2500 mL
Ziehl Fuchsin	320490-1000	1000 mL
Violet oxalate crystal	361490-1000	1000 mL
Safranin	361500-1000	1000 mL



## 4 | PARASITOLOGY - MYCOLOGY

The parasitology and mycology range offers the possibility of staining, and assisting in the diagnosis of a wide range of pathogens within various sample matrices.

It consists of gold standards and innovations that improve the speed of the technique, the quality and reproducibility of results, and user safety.

Suitable for medical and veterinary use, these reagents comply with current techniques and recommendations.

# Rapid staining of tissue and blood parasites in human and veterinary biology

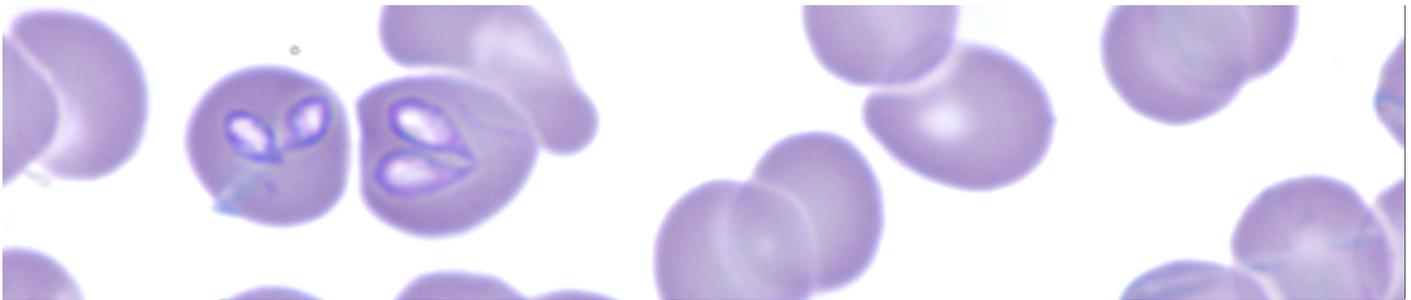


## Kit RAL 555 - Rapid staining kit for parasitology and mycology

**Result standardization**

**Time-efficient procedure**

The RAL 555 kit is a rapid variant of Romanowsky staining. It is used to detect blood and tissue parasites, including Plasmodium, in both human and veterinary biology. As a versatile stain, the 555 kit can also be used in hematology (blood and bone marrow smears), histology, spermology, and cytobacteriology.



RAL 555 staining of peripheral blood smear from a dog with Babesiosis (Obj. x100)



Product	Reference	Packaging	Protocol duration
Kit RAL 555	361550-0000	1 kit (3 x 100 mL)	15 sec
Estimated number of tests .....until 200 slides			
<b>Kit components</b>			
FIX-RAL 555	362870-0100	100 mL	
Eosin-RAL 555	361640-0100	100 mL	
Blue-RAL 555	361650-0100	100 mL	

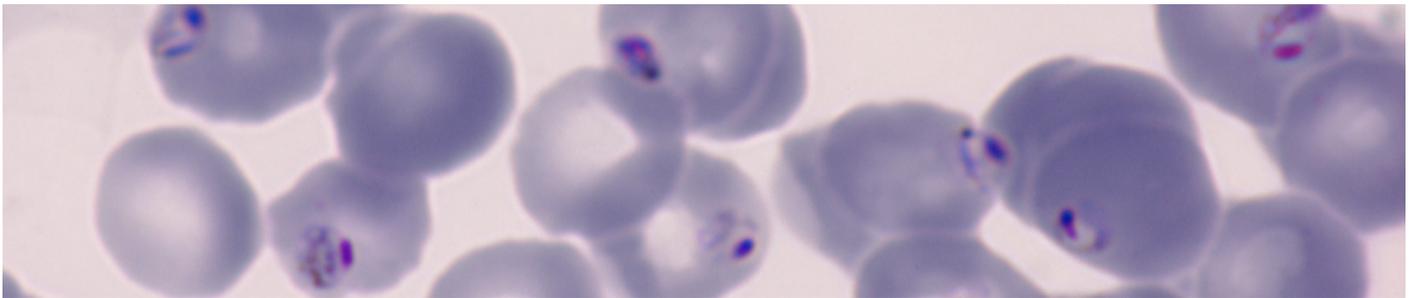
# Giemsa staining in parasitology and mycology

## Gold Standard in Parasitological Staining



**Result  
standardization**

Giemsa staining is the most useful panoptic staining method in parasitology, particularly in the field of tissue and blood protozoa. It can be used in human and veterinary mycology. Giemsa stains cytoplasmic structures blue and nuclear structures or other organelles containing nucleic acids (such as the kinetoplast of trypanosomatids) purple-red. Giemsa staining is considered the gold standard for detecting and identifying the malaria parasite.



*Giemsa staining of peripheral blood smear from a patient infected by *P. falciparum**



*Giemsa R  
solution*

Product	Reference	Packaging
<b>Giemsa R solution</b>	<b>320310-1000</b>	<b>1 000 mL</b>
<b>Or in solution</b>		
pH = 6.8 buffer	330368-5000	5 000 mL
pH = 7.0 buffer	330370-5000	5 000 mL

# Mycology

Detection of fungal elements in different types of biological samples.

Reagents used: Gram Hucker, 555, PAS, Saffron in alcoholic solution, and Giemsa R.



**Result  
standardization**



**Time-efficient  
procedure**

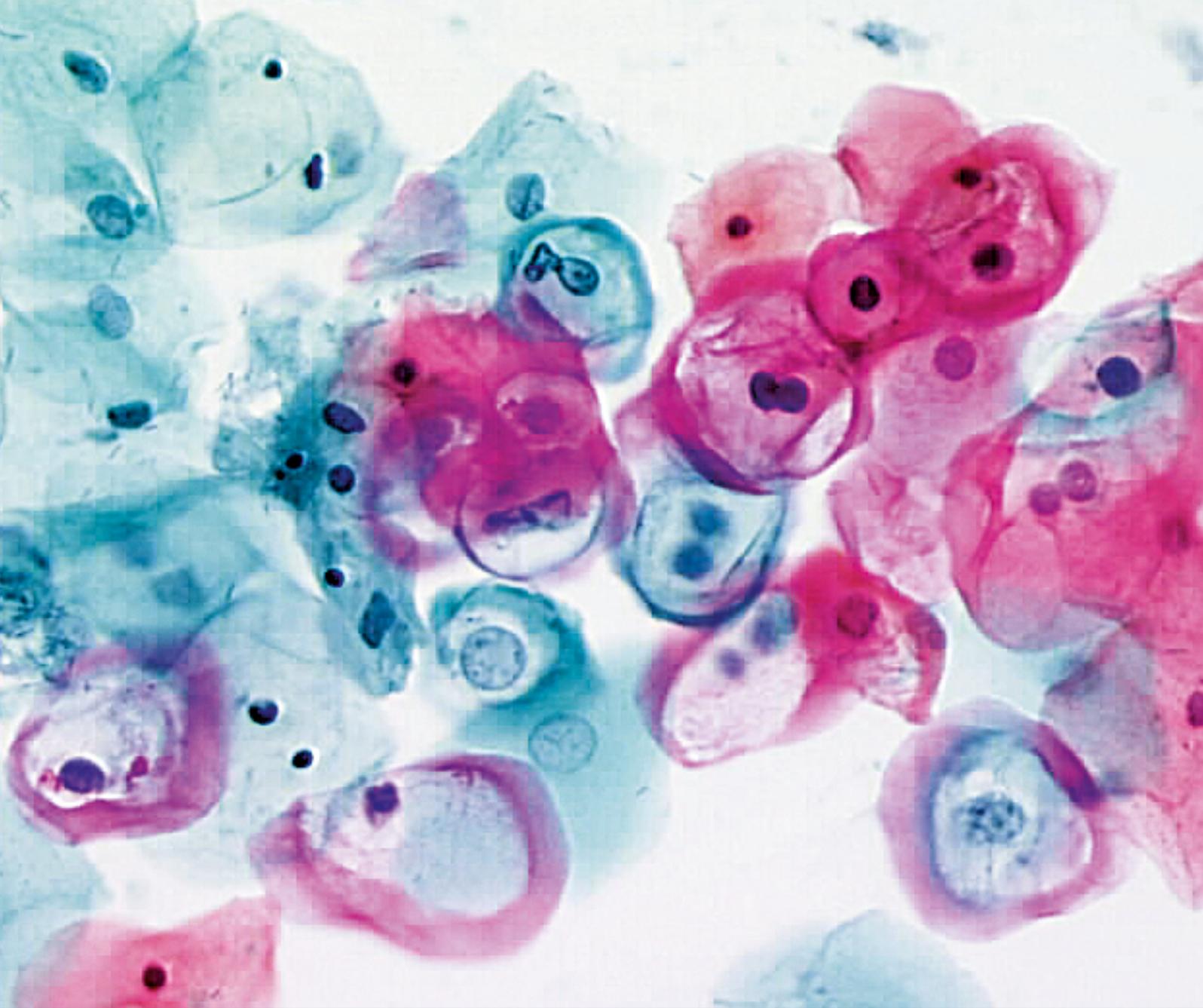
These staining techniques allow the detection of fungal elements in various biological samples. The selected reagents ensure clear visualization of fungal structures, while Lactophenol Blue simultaneously clarifies the preparation and stains fungi blue for optimal microscopic observation.



*Lactophenol blue staining of Scedosporium (Obj. x40)*

Product	Reference	Packaging	Protocol duration
Ziehl Fuchsin	320490-1000	1 000 mL	
Lactophenol blue	363060-1000	1 000 mL	<b>3 min</b>

The use of Lactophenol Blue allows the preparation to be clarified (thanks to Lactophenol) and the fungi to be stained blue at the same time.



## 5 | CYTOLOGY

The cytology range provides reliable staining solutions for the evaluation and characterization of cellular samples.

It includes reference techniques such as Papanicolaou staining for hormonal cytology, as well as specific kit like Kit Vita-Eosine for sperm viability assessment and complementary stains including Shorr stain and Harris hematoxylin.

Designed for medical and veterinary applications, these reagents ensure high-quality staining, reproducibility of results, and compliance with current cytological practices and recommendations.

# Hormonal cytology



## Papanicolaou staining



**Result  
standardization**



**Simplified staining  
protocol**

Papanicolaou staining combines a nuclear dye, Harris' hematoxylin, with two cytoplasmic dyes, Papanicolaou OG6 and EA50. It is the most used technique for the diagnosis of cervical cancer. It also enables morphological analysis of spermatozoa (spermocytogram).



*Papanicolaou staining of oral smear*



*OG6 Papanicolaou  
Solution*

Product	Reference	Packaging	Protocol duration
Harris hematoxylin, regressive variation	361070-1000	1 000 mL	<b>20 min</b>
OG6 Papanicolaou Solution	361630-1000	1 000 mL	
EA50 Papanicolaou Solution	367600-1000	1 000 mL	

\*From 20 min to 45 min according to protocol

# Differentiating dead sperm from live sperm to determine vitality rates



## Kit Vita-Eosine



**Time-efficient procedure**



**Easy interpretation of result**

A semen analysis allows the percentage of dead and live sperm to be assessed. Only dead sperm are stained pink by eosin. Live sperm do not take up the stain, but their outlines are traced in dark blue by nigrosine.



Sperm staining using the Kit Vita-Eosine (Obj. x100)



Kit Vita-Eosine

Product	Reference	Packaging	Protocol duration
Kit Vita-Eosine	380420-0000	1 kit	1 min
Estimated number of tests .....			1000 slides
<b>Kit components</b>			
Eosin solution	363200-0100	1 x 100 mL	
Nigrosin solution	363210-0100	1 x 100 mL	

# Other staining in cytology



## Kit RAL 555 - Rapid variation of May-Grünwald Giemsa staining

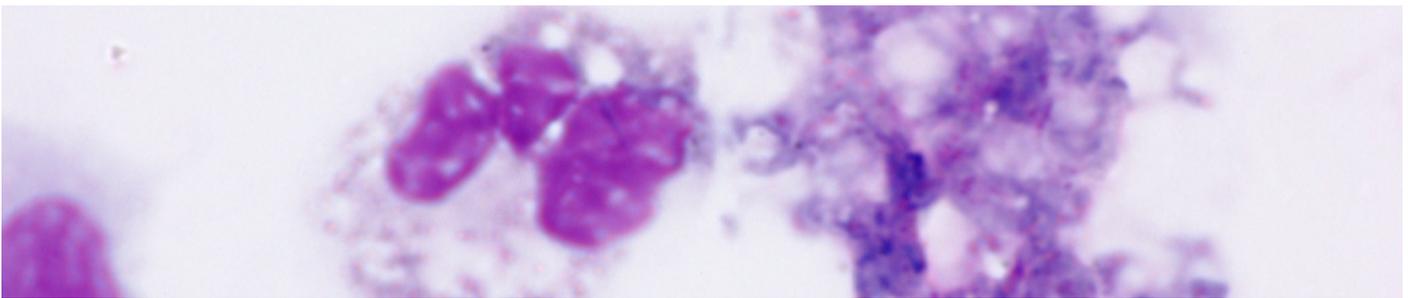


**Result  
standardization**



**Time-efficient  
procedure**

The RAL 555 kit is a rapid variant of Romanowsky staining. It is a versatile stain that can be used in hematology (bone marrow and blood smears), parasitology, histology, sperm analysis, and cytbacteriology.



RAL 555 staining of bronchoalveolar liquid from a patient infected by *Pneumocystis carinii* (Obj. x100)



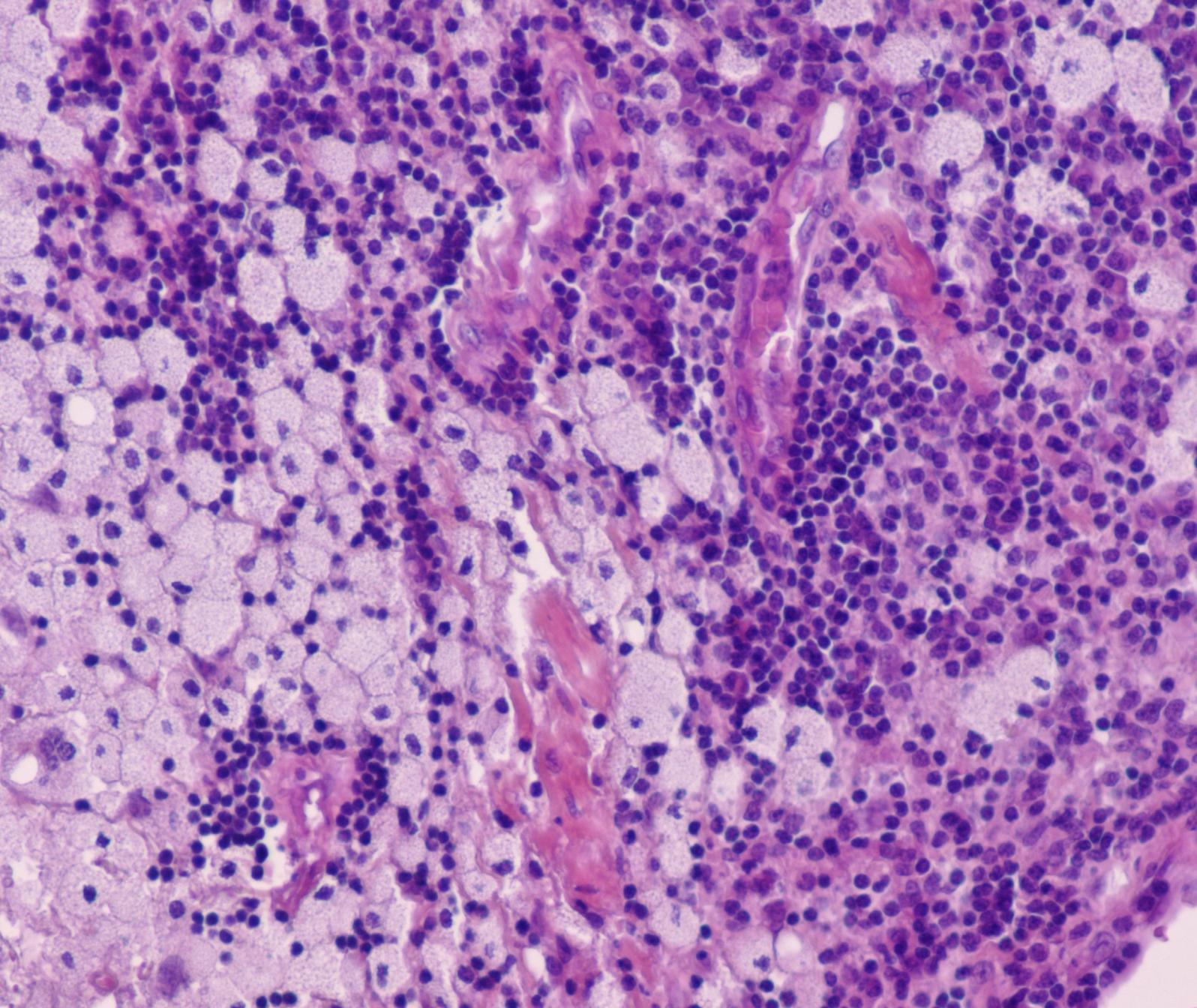
Kit RAL 555

Product	Reference	Packaging	Protocol duration
Kit RAL 555	361550-0000	1 kit (3 x 100 mL)	22 sec ( <i>Helicobacter pylori</i> )
Estimated number of tests.....			until 200 slides
<b>Kit components</b>			
Fix-RAL 555	362870-0100	100 mL	
Eosin-RAL 555	361640--0100	100 mL	
Blue-RAL 555	361650--0100	100 mL	

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## Bottles and powders sold individually

Product	Reference	Packaging
Harris hematoxylin	361070-1000	1000 mL
Papanicolaou EA50 stain	367600-1000	1000 mL
Shorr stain	361100-1000	1000 mL



## 6 | HISTOLOGY

The reagents and stains in the Histology range are available in kits or individual formats to suit all activities and specific features of the selected techniques.

Each stain helps to highlight specific cellular and tissue elements.

To facilitate the staining process, the range also includes decalcification reagents.

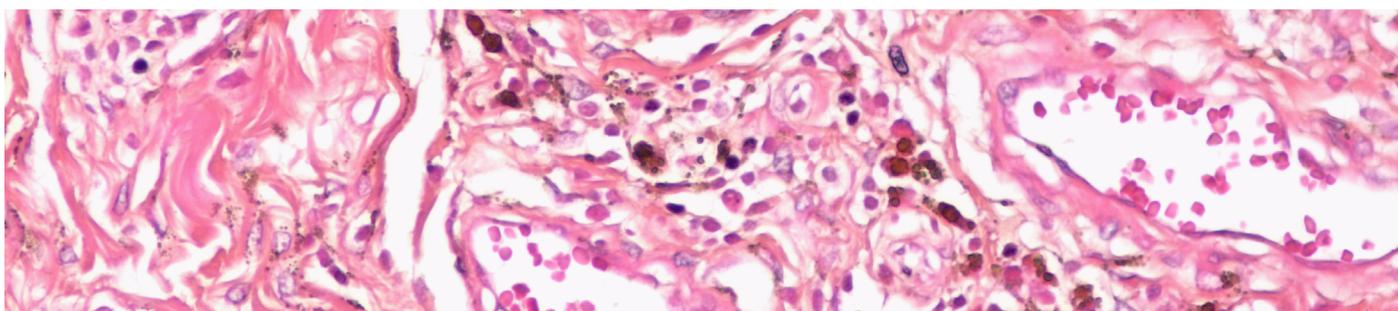
# Common histological stains

## Eosin and variants

bichromatic stainings: Hematoxylin-Eosin and variants



Hematoxylin-Eosin (HE) staining is a two-step staining technique for histopathology. It uses of a nuclear stain, hematoxylin or hematoxylin-eosin, and a cytoplasmic stain, eosin.



HE staining of synovial (Obj. x20)



Mayer  
hemalum

Product	Reference	Packaging
Mayer hemalum	320550-1000	1 000 mL
Harris Hematoxylin	361070-1000	1 000 mL
Eosin 1% aqueous solution	312740-1000	1 000 mL

Trichromatic stains: Hematoxylin-Eosin-Saffron and variants

Saffron in alcoholic solution	369200-1000	1 000 mL
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# Fast histological staining

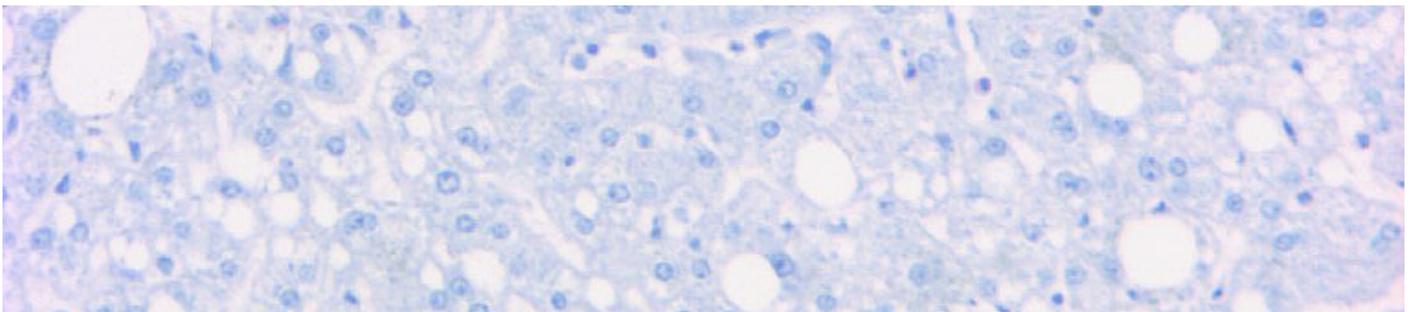


## Kit RAL 555 - Rapid variation of May-Grünwald Giemsa staining

**Result standardization**

**Time-efficient procedure**

The RAL 555 kit is a rapid variant of Romanowsky staining. It is a versatile stain that can be used in hematology (bone marrow and blood smears), parasitology, histology, sperm analysis, and cytobacteriology.



RAL 555 staining of hepatic section from a patient with hemangioma



Product	Reference	Packaging	Protocol duration
<b>Kit RAL 555</b>	<b>361550-0000</b>	<b>1 kit (3 x 100 mL)</b>	<b>23 sec</b>
Estimated number of tests .....			200 slides
Fix-RAL 555	362870-0100	100 mL	
Eosin-RAL 555	361640-0100	100 mL	
Blue-RAL 555	361650-0100	100 mL	

# Standard histological and histochemical staining



**Kit Trichrome of Masson, light green variant - Staining for histological and cytological studies of fixed and paraffin-embedded tissue sections**

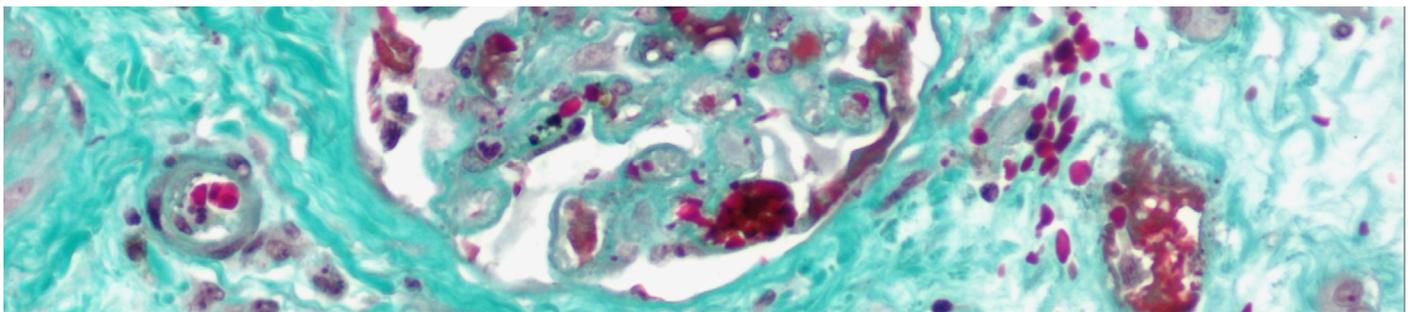


**Simplified and optimized protocol**



**Excellent contrast**

Staining with the Masson's trichrome kit, light green variant, allows trichrome staining of histological sections with selective staining of collagen using light green. Mayer's hematoxylin stains nuclei blue-black or brown, Fuchsin-Ponceau solution stains cytoplasm pink-red, and light green stains collagen green.



*Trichromic staining of a kidney section from a patient with transplant rejection (Obj. x20)*



*Kit Trichrome de Masson, light green variant*

Product	Reference	Packaging	Protocol duration
<b>Kit Trichrome de Masson, light green variant</b>	<b>361350-0000</b>	<b>1 kit</b>	<b>28 min</b>
<b>Estimated number of tests</b> .....			<b>60 slides</b>
Mayer hemalum	320550-0100	100 mL	
Green light	361700-0100	100 mL	
Phosphomolybdic acid	3617603B100	100 mL	
Fuchsin-Ponceau	3617702B100	100 mL	
1% acetic acid solution	3618105B100	100 mL	
1% acetic acid solution	3618406B100	100 mL	

Product	Reference	Packaging
Giemsa R Solution	320310-1000	1 000 mL

# Perls staining for the detection of hemosiderin

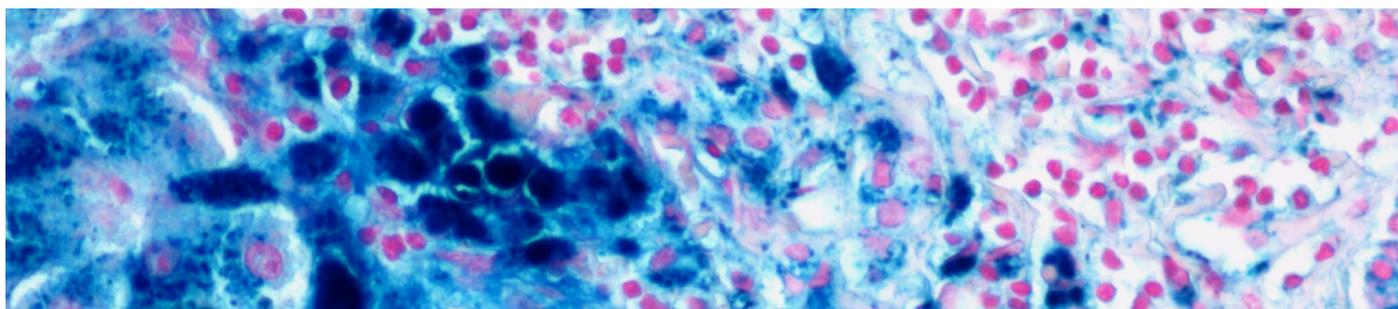


Kit HistoPerls - Pathological pigment (ferric salts - Prussian blue)

**Result standardization**

**Simplified staining workflow**

In an acidic environment, ferric ions react with potassium ferrocyanide to form a precipitate of ferric ferrocyanide (Prussian blue), which highlights a pathological pigment called hemosiderin.



Staining of liver section using the Kit HistoPerls from a patient with a cirrhosis in hemochromatosis (Obj. x20)

Product	Reference	Packaging	Protocol duration
Kit HistoPerls	361850-0000	1 kit	40min*
Estimated number of tests .....			50 slides
<b>Kit components</b>			
Nuclear red solution	320910-0100	1 x 100 mL	
Acid buffer and potassium ferrocyanide	361955-0005	10 x 5 mL	



Kit HistoPerls

\*From 40 min to 43 min according to protocol

# P.A.S. staining for the detection of carbohydrates



For accurate visualization of tissue carbohydrates

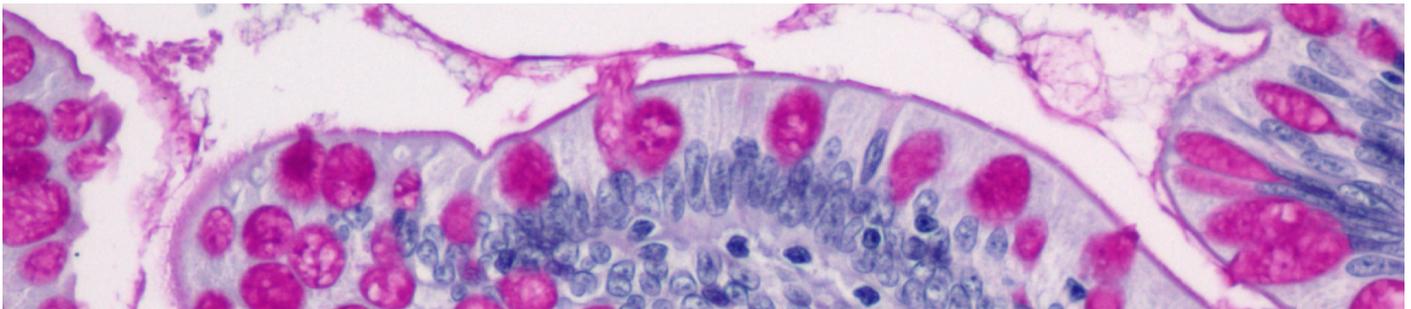


Reliable detection  
of polysaccharides



Clear visualization of  
carbohydrate-rich  
structure

Periodic acid Schiff (PAS) staining is a staining technique used in histology and mycology. It stains carbohydrates and glycoproteins in the cell walls of certain pathogens and helps detect certain parasitic and fungal elements.



PAS staining of small intestine section from a patient with a Merckel's diverticulum (Obj. x20)



Schiff reagent



Mayer hemalum

Product	Reference	Packaging	Protocol duration
Schiff reagent	320680-1000	1 000 mL	<b>1h46min</b>
Mayer hemalum	320550-1000	1 000 mL	

# Specific products in histology

Decalcification for anatomical specimens: OsteoRAL, decalcifier for large anatomical specimens



**Reliable histological results**



**Time-efficient process**

OsteoRAL R is intended for use in the decalcification of large anatomical specimens prior to microtome sectioning.



*Bone decalcification using OsteoRAL R solution*



*OsteoRAL R*

Product	Reference	Packaging
OsteoRAL R	320715-2500	2 500 mL

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## Bottles and powders sold individually

Product	Reference	Packaging
Papanicolaou OG6 stain	361630-1000	1000 mL
Erythrosine B in 1% aqueous solution	361990-1000	1000 mL

# Other products and stainings for various applications

## Immersion oil



**Controlled oil spreading  
for cleaner microscopy**



**Improving  
laboratory safety**

Immersion oil was created for observing microscopic preparations under immersion objectives. Its high quality optimizes slide viewing. It has the same refractive index as glass and offers unmatched transparency, allowing for very comfortable microscopic observation.

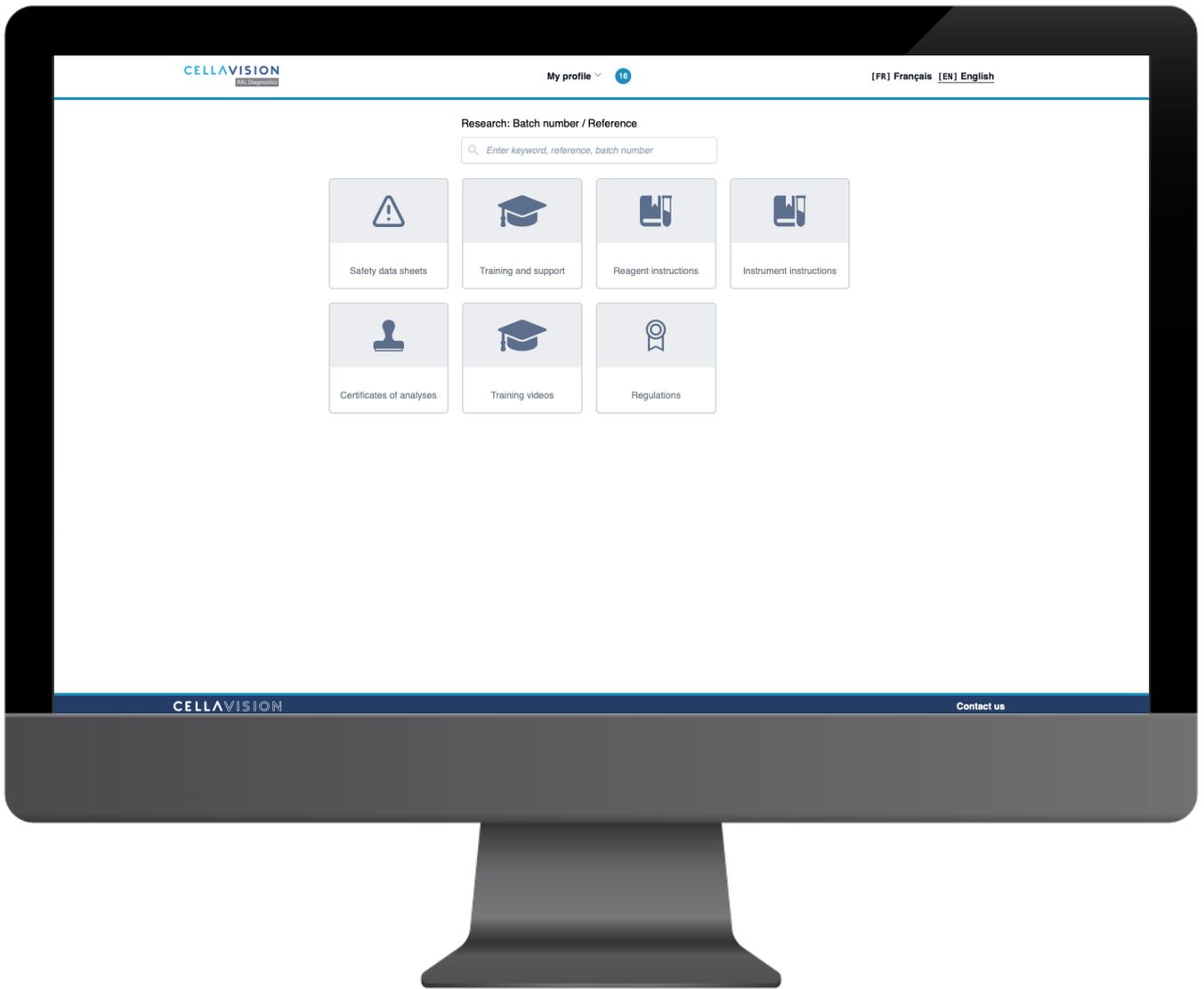


*Drop deposit of immersion oil*



*Pack Dropstand  
Immersion 100*

Product	Reference	Packaging
Pack DropStand Immersion 100	340103-0000	7 x 15 mL et 1 DropStand
Pack Immersion 150	340150-0000	6 x 25 mL (150 mL)



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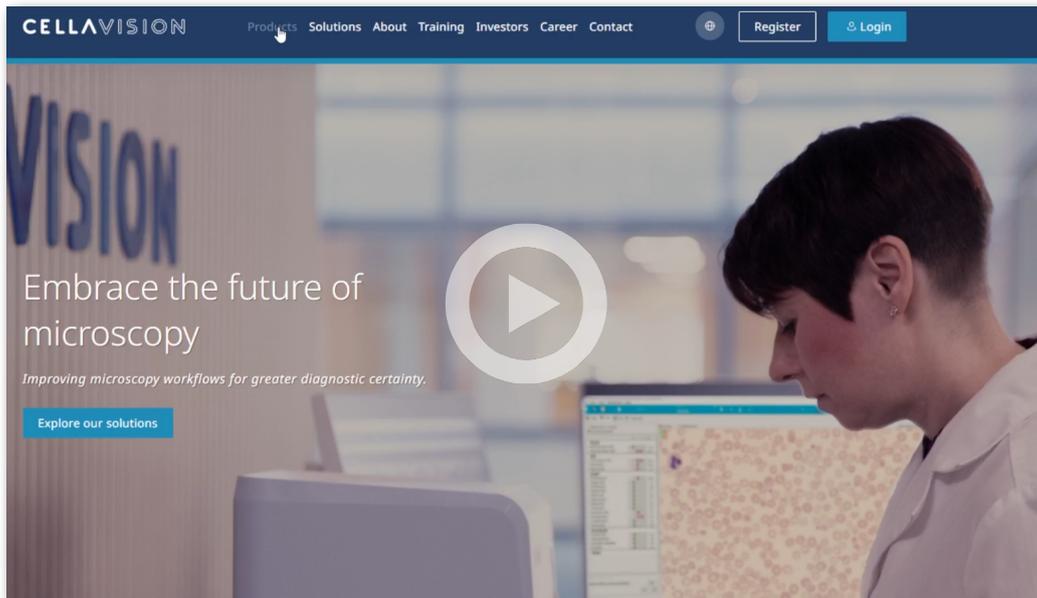
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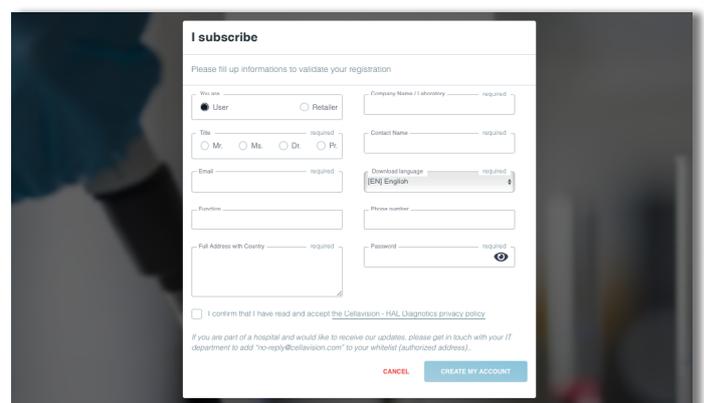
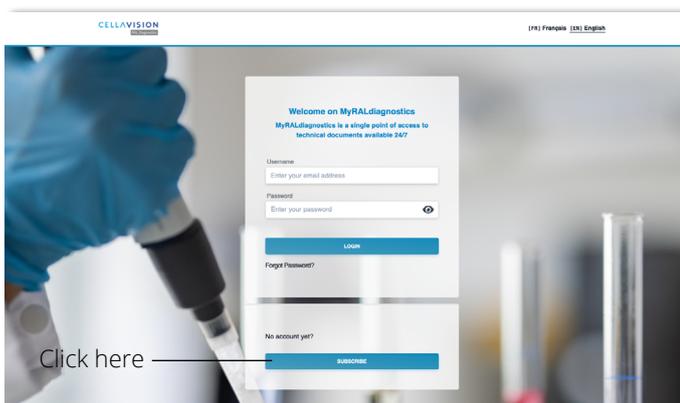
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