

Leishman's eosin methylene blue for microscopy

**34225 Leishman's stain Gurr® for
microscopical staining**

**35022 Leishman's staining solution Gurr® for
microscopical staining**

Cat. No	Pack Type	Pack Size
342252W	Glass Bottle	25 g
350224L	Glass Bottle	500 ml

Composition

Cat. No. 35022		
C.I. No. 52015 + Azure	0.9 g/l	
C.I. No. 45380	0.9 g/l	
contains CH ₃ OH		

Cat. No. 34225		
C.I. No. 52015 + Azure	52 %	
C.I. No. 45380	48 %	

Intended Use(s)

Leishman's stain is a histology stain that facilitates the differentiation of blood cell types. It is primarily used for the initial evaluation to differentiate nuclear and/or cytoplasmic morphology of platelets, RBCs, WBCs for diagnosis, (size, form and content) and examined under microscope. In cytogenetics it is used to stain chromosomes to facilitate diagnosis of syndromes and diseases.

Evaluate the result by comparing it to what would be the age related normal values

Review of the smears helps in determining the need for ancillary studies, such as cytochemistry, immunophenotyping, cytogenetic analysis, and molecular genetic study.

An initial review of the patient's clinical background is necessary to use in conjunction with the result of the staining

Samples derived from the human body

Reference:

*A rapid method for the differential staining of blood films
Wright, J. H. A.

Characteristics and performances

The typical colour of cell nuclei, namely purple, is due to molecular interaction between eosin Y and an azure B-DNA complex.

Both dyes build up the complex later. The intensity of the staining depends on the azure B content and on the ratio azure B/eosin Y. The staining result can be influenced by several factors such as the pH of the solutions and buffer solution, buffer substances, fixation, staining time.

Reagent

Cat. No	Description	Pack Size
35022	Leishman's staining solution	500 ml,
34225	Leishman's stain	10 g
20847	Methanol Analar Normapur Reagent Ph. Eur.	1 l, 2,5 l, 5 l, 25 l
36311	Buffer tablets acc. to Weise pH 6.8	1 pack (100 tabs)
1.09468	Buffer tablets acc. to Weise pH 7,2	1 pack (100 tabs)

Preparation

1. Buffer solution

Dissolve 1 buffer tablet in 1 l distilled water.

*1.09468 or 36311 depending on the required reaction color

2. Dilute Leishman's solution for manual staining

Dilute 30 ml Leishman's eosin methylene blue solution with 150 ml distilled water and add 20 ml buffer solution.

3. Dilute Leishman's solution for staining with MIRASTAINER (Automated instrument)

Slowly add 30 ml buffer solution and 220 ml distilled water to 50 ml Leishman's eosin methylene blue solution, mix and leave to stand for 10 min.

4. Leishman's eosin methylene blue solution

Dissolve 0.12 g Leishman's eosin methylene blue in 100 ml methanol while warming gently on a water bath at 40°C, leave 5 days to mature, and filter.

Sample material and preparation

For professional use only.

Air-dried blood and bone marrow smears

Films are made by placing a drop of the samples on one end of a slide, and using a *spreader slide* to disperse the sample over the slide's length. The aim is to get a region where the cells are spaced far enough apart to be counted and differentiated. The slide is left to air dry

In order to avoid errors, the staining process must be carried

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out by qualified personnel.

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

Microscopes equipped according to the standard must be used.

Suitable instruments must be used for taking samples and for their preparation. Follow the manufacturer's instructions for application/use.

All samples must be clearly labelled.

Procedure

Staining rack

Leishman's solution	1 min
Buffer solution (2 ml) add, mix, stain	5 min
Rinse with buffer solution	
Dry	

Staining cuvette

Leishman's solution	3 min
Dilute Leishman's solution	6 min
Rinse with buffer solution	2 x 1 min
Dry	

Staining with MIRASTAINER® (Automated instrument)

Reagents	Time	Station	Dip
Leishman's solution	3 min	2	On
Dilute Leishman's solution	6 min	3	On
Buffer solution	1 min	4	On
Running water (rinse)	2 min	5	On
Dry	3 min	6	-

Result

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

Nuclei	red to violet
Lymphocytes	plasma blue
Monocytes	plasma gray-blue
Neutrophilic granulocytes	granules light violet
Eosinophilic granulocytes	granules brick-red to red-brown
Basophilic granulocytes	granules dark-violet
Thrombocytes	violet
Erythrocytes	reddish

Evaluate the result by comparing it to what would be the age related normal values

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An initial review of the patient's clinical background is necessary to use in conjunction with the result of the staining

Reference:

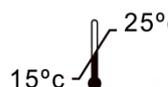
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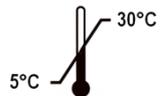
Diagnostics

Diagnoses are only to be made by authorised and trained persons. Valid nomenclatures must be used.

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

Storage

 Store the staining solution at +15°C to +25°C

 The dye must be stored at +5°C to +30°C. The solution and the dye must be used by the expiry date stated.

Shelf life



After first opening the bottle, the contents can be used up to the expiry date when stored at +15°C to +25°C (solution) resp. +5°C to +30°C (dye). The bottles must be kept tightly closed at all times.

Auxiliary reagents

Cat. No	Description	Pack Size
36126	Microil Immersion oil tropical grade	100 ml
36104	Microil Immersion Oil	100 ml, 500 ml
36102	Lenzol Immersion Oil Gurr	100 ml
36194	Fractoil Synthetic Immersion Oil	500 ml
36312	Aquatex® aqueous mounting agent	50 ml
36125	DePeX® mounting medium	500 ml
36029	DPX mountant	100 ml, 500 ml



In Vitro Diagnostic Medical Device
For professional use only



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Precautionary measures on health hazards

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

Physical Hazard classification

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

The VWR safety data sheet is available on the Internet.

Instructions for environmental disposal

Used solutions and solutions that are past their shelf-life must be disposed of as special waste according to local disposal guidelines. VWR International can provide technical support for local disposal solutions.



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