

# MAY GRÜNWARD STAIN

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## Principle

Used in hematology, May Grünwald staining allows the differentiation of different blood cells. Thus, it allows to reveal erythrocytes, basophils, eosinophils, polymorphonuclears, lymphocytes and platelets. May Grünwald's solution stains the acidophilic elements and neutrophilic granulates of leukocytes.

## Material

Blood.

## Reagents

Code	Description
251416	May Grünwald's Eosin-Methylene Blue solution for clinical diagnosis (*)
141091	Methanol (USP-NF, BP, Ph. Eur.) pure, pharma grade
251002	Immersion Oil for clinical diagnosis (*)
252164	Buffer Solution pH 7.2 for clinical diagnosis

## Procedure

1. Prepare a fine line of blood in a clean door, let it dry (approx. 1-2 hours).
2. Cover the preparation with Eosin-Blue Methylene solution according to May Grünwald for 3 minutes.
3. Wash with buffer pH 7.2.
4. Allow to drain and air dry.
5. When starting the second phase of the staining, take 5 ml of Eosin-Blue Methylene solution according to May Grünwald and dilute in 5 ml of buffer solution pH 7.2. Homogenize.
6. Cover the preparation with this diluted solution for 10 minutes.
7. Wash for 2 minutes with pH 7.2 buffer.
8. Allow the preparation to dry in the upright position.
9. Observe the preparation for immersion purposes.

## Results

<b>Erythrocytes</b>	Violet-Something pink
<b>Platelets</b>	Violet

Type of leucocyte	Nuclei	Cytoplasm	Granulations
Neutrophil	Violet to reddish	----	Violet
Eosinophil	Violet to reddish	----	Red brick to reddish brown
Basophil	Violet to reddish	----	Dark violet to black
Monocyte	Violet to reddish	Blue-gray	----
Lymphocyte	Violet to reddish	Blue	----

## Technical note

The microscope used should correspond to the requirements of a clinical diagnostic laboratory. If an automatic staining device is used, the operating instructions of the appliance manufacturer and the software must be observed.

## Sample preparation

All samples should be treated according to the state of the technology. All samples must be unambiguously labeled.

## Diagnostics

Diagnosis should be established only by authorized and qualified persons. Each application should involve appropriate controls to rule out erroneous results.

## Storage

The staining solution should be stored at room temperature.

## Expiration

The product stored at the indicated temperature and in a tightly closed container is usable until the expiration date indicated on the package.

## Notes on use

In order to avoid errors, the staining must be carried out by specialized personnel. For professional use only. The national directives on safety at work and quality assurance must be complied with.

## Advise on disposal of waste

Solutions used and expired solutions should be disposed of as hazardous waste and local waste disposal regulations must be observed. If further questions are asked about disposal, they may be processed through E-Mail: [info.es@itwreagents.com](mailto:info.es@itwreagents.com). Inside the EU are valid the requirements based on Council Directive 67/548/EEC on the approximation of the laws, regulations and laws, regulations and administrative provisions relating to the classification, packaging and labeling of dangerous substances in the relevant version.

**Classification of hazardous substances**

Observe the classification of dangerous substances on the label and the information on the safety data sheet.

**Manufacturer**

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(\*) Sanitary product for In Vitro Diagnostics

