

IVD IN VITRO DIAGNOSTIC MEDICAL DEVICE **CE**

NAME MAY-GRUNWALD REAGENT

European Medical Device Nomenclature (EMDN) W0103010301 **HISTO / CYTO STAINS**
(CELLULAR STAINS FOR MICROSCOPY)

Packaging available

460581	May-Grunwald Reagent	2.5 l bottle
460584	May-Grunwald Reagent	100 ml bottle
460586	May-Grunwald Reagent	500 ml bottle

Intended use

Preparation for sample staining in hematology/histology, for examination in light microscopy.

Principle

The unequivocal evaluation of the morphological characteristics of blood cells depends on the chromatic framework, which is a function of the staining solution itself, the method chosen and its execution, as well as parameters such as the pH of the wash water. May-Grunwald staining is based on the differentiation of eosin-binding (acidic) basic reactive cellular constituents stained orange-red, and other acid-reacting components stained blue with methylene blue, basic blue oxidation products; the intensity of the color depends on the relationship between the concentration of methylene blue and Eosine.

Warnings and Precautions

The product is intended for specialized technical personnel.

The product is ready to use.

Carefully read the safety and precautionary statements on the label. Always refer to the **Safety Data Sheet** (accessible from the website at <https://www.carloerbareagents.com/cerstorefront/cer-fr>) which contains information on the risks posed by the product, the precautionary measures to be taken during use, first aid measures and response measures in the event of an accidental release.

Do not use if primary container is damaged.

Reagents are produced using uniform methods in accordance with bibliographic references and verified in accordance with quality control specifications.

Procedure

Depending on the pH of the water used, the May Grunwald staining has big differences: optimal staining is achieved in about 15 minutes, operating as directed; acidic solutions enhance the action of eosin but weaken the blue color; alkaline solutions enhance this color but damage the tone of the Eosine, so that insignificant tones of bluish gray are resulted. Staining is particularly indicated for the identification of granulocytes. Staining is best done with recently prepared samples. Older samples are appropriately fixed with methanol about 30 minutes before staining or a few hours before with alcohol ether.

- 1) On the air-dried and unfixed sample, pour 0.5 ml of coloring and let stand for 3 to 5 minutes.
- 2) Add an identical amount (0.5 ml) of distilled water buffered at pH 7.2 (buffer according to WEISE pH 7.2) and mix gently with the previously added solution by shaking the glass slide. Coloring takes between 5 and 10 minutes
- 3) The sample is rinsed with distilled water buffered at pH 7.2, until a pale pink colour is obtained.



Results

Lymphocytes	Blue Plasma & Light Blue Core
Granulocytes	Light blue core, depending on their nature, the other parts have a purple-red or dark blue coloration
Monocytes	Light Blue Core, Blue-Grey Plasma
Platelets	Blue with purple center

Remark

If there is any doubt about the test result, repeat the above procedure

Stability

The product is stable under normal storage conditions.

There is no particular risk of reaction with other substances under normal conditions of use.

Shelf life of the product

The product has a shelf life of 2 years, in unopened packaging and properly stored.

Close the bottle after use.

After the first opening, the product can be used for 6 months or within the limit of the total shelf life.

Storage conditions

Products are packaged in appropriate containers, with a sealed cap; They should be kept tightly closed, away from light, in a cool, dry place.

Recommended temperature range for storage: 5-30°C

Caution: In case of precipitation of dyes, the solution can be restored by heating in a water bath for a few minutes at 60 °C; the formation of a "mirror" on the walls of the bottle indicates that the product has aged and therefore it is advisable to get rid of it.

Waste Disposal

For more information regarding disposal, please refer to the Safety Data Sheet. It is advisable to follow proper safety measures when handling, processing, and disposing of all clinical specimens, as pathogenic organisms may be present

References

Staining Procedures – Edited by G.Clark 4th Ed. – Williams & Wilkins Baltimore/London.

V.Mazzi, Manuale di Tecniche Istologiche ed Istochimiche – Piccin Editore Padova.

English Version

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