

# May-Grunwald Stock Solution

**Description:** May-Grunwald Stock Solution is a component of the Giemsa Stain Kit (Catalog# GMG-1) and is intended for use in the visualization of cells present in hematopoietic tissues as well as certain microorganisms. This kit may be used on formalin-fixed, paraffin-embedded tissue sections or standard peripheral blood smears.

**Giemsa Stain Kit Results (requires ScyTek's entire GMG-1 Giemsa Stain Kit (May-Grunwald):**

- Nuclei: Blue/Violet
- Cytoplasm Light Blue
- Collagen: Pale Pink
- Muscle Fibers: Pale Pink
- Erythrocytes: Gray, Yellow or Pink
- Rickettsia: Reddish-Purple
- Helicobacter Pylori: Blue
- Mast Cells: Dark Blue with Red Granules

**Uses/Limitations:** Not to be taken internally.  
For In-Vitro Diagnostic use only.  
Histological applications.  
Do not use if reagent become cloudy.  
Do not use past expiration date.  
Use caution when handling reagent.  
Non-Sterile.

**Control Tissue:** Peripheral Blood Smear  
Bone Marrow  
Tissue with bacterial infection.  
Skin for Mast Cells

**Availability/Contents:**

Item #	Volume
MAY500	500 ml
MAY999	1000ml

*Also available in bulk. Please contact for pricing and availability.*

**Required But Not Included:**

- GG500 Giemsa Stock Solution 500 ml Room Temperature
- PBM500 Phosphate Buffer Solution, pH 6.8 500 ml Room Temperature

**Storage:** Room Temperature (18-25°C)

**Precautions:** Solution is toxic and alcoholic, Avoid contact with skin and eyes as well as sparks and flame. Tighten lid securely. Follow all Federal, State, and local regulations regarding disposal.

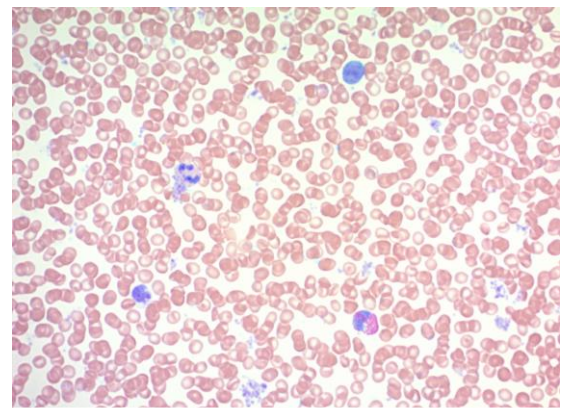


Figure 1. Peripheral human blood smear stained with the Giemsa Stain Kit (May-Grunwald)

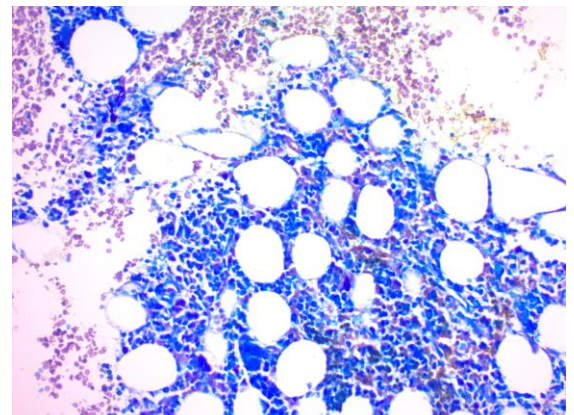




Figure 2. Human Bone Marrow stained with the Giemsa Stain Kit (May-Grunwald)

Storage: 18° C  25° C

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**Preparation of Reagents Prior to Beginning:**  
**(ScyTek's entire GMG-1 Giemsa Stain Kit (May-Grunwald))**

1. Prepare **Working May-Grunwald Solution** by mixing 25ml of May-Grunwald Solution (MAY500) with 25ml of Phosphate Buffer Solution, pH 6.8 (PBM500).
2. Prepare **Working Giemsa Solution** by mixing 2.5ml of Giemsa Stock Solution (GGS500) with 50ml of Phosphate Buffer Solution, pH 6.8 (PBM500). **If staining a peripheral blood smear**, instead mix 7.5ml of Giemsa Stock Solution (GGS500) with 50ml of Phosphate Buffer Solution, pH 6.8 (PBM500).

**Procedure:**  
**(ScyTek's entire GMG-1 Giemsa Stain Kit (May-Grunwald))**

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Place slide in staining tray and flood with Working May-Grunwald Solution for 5-7 minutes. Note: Agitate slide occasionally to insure proper staining.
3. Carefully flood slide with Phosphate Buffer Solution, pH 6.8 until stain no longer runs off.
4. Flood slide with Working Giemsa Solution for 10-15 minutes. Note: Agitate slide occasionally to insure proper staining.
5. Carefully flood slide with Phosphate Buffer Solution, pH 6.8 until stain no longer runs off.
6. Allow slide to remain in Phosphate Buffer Solution, pH 6.8 for an additional 3 minutes.
7. Dip slide quickly in distilled water to remove buffer and air dry at room temperature.
8. Dip slide twice in Xylene or Xylene Substitute.
9. Mount in synthetic resin.

**References:**

1. Sheehan, D., Hrapchak, B., Theory and Practice of Histotechnology: 2<sup>nd</sup> Edition, 1980, pages 155-156.
2. A.F.I.P. Laboratory Methods in Histotechnology; 1992, pages 111.
3. Laboratory Medicine: Vol. 25, No. 6, June 1994, page 389.
4. De Brauwer, E., Jacobs, J., Nieman, F., Bruggeman, C., Drent, M. Test Characteristics of Acridine Orange, Gram, and May-Grunwald-Giemsa Stains for Enumeration of Intracellular Organisms in Bronchoalveolar Lavage Fluid. *Journal of Clinical Microbiology*, 1999, 37(2): pages 427-429.
5. Amer, M., Abd Elnasser, T., El Hagggar, S., Mostafa, T., Abdel-Malak, G., Zohdy, W. May-Grunwald-Giemsa stain for detection of spermatogenic cells in the ejaculate: a simple predictive parameter for successful testicular sperm retrieval. *Human Reproduction*, July 2001, 16(7): pages 1427-1432.
6. Ferro, D.P., Falconi, M.A., Adam, R.L., Ortega, M.M., Lima, C.P., de Souza, C.A., Lorand-Metze, I., Metzke, K. Fractal Characteristics of May-Grunwald-Giemsa Stained Chromatin Are Independent Prognostic Factors for Survival in Multiple Myeloma. 2011, *Plos ONE* 6(6): e20706. Doi:10.1371/journal.pone.0020706.

Storage: 18° C



25° C



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