



SS1033-VO

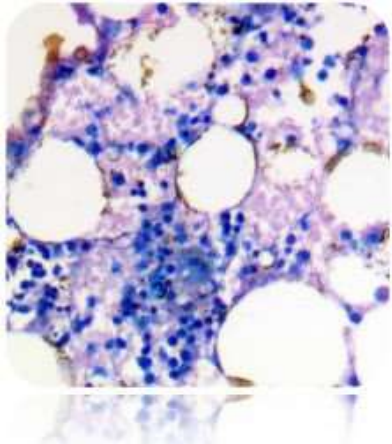
# Giemsa Stain Kit (May-Grunwald) (For Bone Marrow)

**Description:** The Giemsa Stain Kit (May-Grunwald) is intended for use in the visualization of cells present in hematopoietic tissues and certain microorganisms. This kit may be used on formalin-fixed, paraffin-embedded or frozen sections.

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 reagents become cloudy.  
Do not use past expiration date.  
Use caution when handling reagents.  
Non-Sterile.


**Control Tissue:** Blood Film.  
Bone Marrow.  
Spleen.  
Any well fixed tissue.



**Avialability/Contents:**

<u>Kit Contents</u>	<u>Volume</u>	<u>Storage</u>
May-Grunwald Stock Solution	500 ml	18-25°C
Giemsa Stock Solution	500 ml	18-25°C
Phosphate Buffer Solution, pH 6.8	500 ml	18-25°C

**Precautions:** Keep away from open flame.  
Avoid contact with skin and eyes.  
Harmful if swallowed.  
Follow all Federal, State, and local regulations regarding disposal.  
Use in chemical fume hood whenever possible.

Storage: 18° C  25° C



## SS1033-VO

### Preparation of Reagents Prior to Beginning:

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).

### Procedure (Standard):

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.

### Procedure (Mast Cells):

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. Differentiate by dipping slide in Acetic Acid Solution (0.25%) until background is desired intensity.
7. Dip slide for 10 seconds in Phosphate Buffer Solution, pH 6.8 while agitating gently.
8. Dip slide quickly in distilled water to remove buffer and air dry at room temperature.
9. Dip slide twice in Xylene or Xylene Substitute.
10. Mount in synthetic resin.

Storage: 18° C  25° C

**SS1033-VO****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 Haggag, 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.

Description:	Volume
May-Grunwald Stock Solution	125 ml
	500 ml
	1000 ml
Giemsa Stock Solution	125 ml
	500 ml
	1000 ml
Phosphate Buffer Solution, pH 6.8	500 ml
	1000 ml

Storage: 18° C  25° C