

May-Grunwald/Geimsa Combined Stain For Bone Marrow

Catalog # 26064 and 15940

Fixation:

1. Smears: Draw a curetted fragment lightly across a sterile slide in a serpentine path. Don't allow the streak to dry completely. Start with step #4
2. Sections: Zenker's (#64123-05) or other well-fixed tissue. Start with step 1

Sections:

Paraffin, 6 microns

Staining:

1. Deparaffinize and hydrate to distilled water
2. Remove mercuric chloride crystals with Lugol's or Gram's Iodine solution with Sodium Thiosulfate, 5% for three minutes.
3. Wash in tap water, 10 minutes and rinse in distilled water for two changes.
4. Place promptly in Methyl Alcohol, two changes, three times each.
5. Stain with May-Grunwald Solution or Jenner Solution 3 minutes. Add an equal volume of distilled water and allow standing one minute. Drain, no rinsing. Alternatively stain in working Jenner's (dilute 1:1 with distilled water, 6 minutes).
6. a. Sections: Stain in working Giemsa (freshly stain in working Giemsa, by diluted 2.5ml Giemsa Stock Solution (#15940) in 50 ml distilled water, do not re-use), 45 minute
b. Smears: Cover for 12 minutes with working Giemsa (15 drops of Giemsa Stock (#15940) to 10 drops of distilled water)
7. a. Sections: Differentiate each slide individually in Acetic acid, 1% with gentle agitation, checking often under the microscope until nuclei are well-defined. Rinse quickly in distilled water.
b. Smears: Differentiate in distilled water, agitating for approximately 5 seconds and checking under the microscope.
8. (Section only) Dehydrated quickly in 95% alcohol and absolute alcohol and clear in two changes of xylene.
9. a. Sections: Mount with Permount (#17986-01) or other synthetic mount and
b. Smears: Blot with fine grain filter paper and mount.

Results:

Blue	Nuclei, Bacteria
Pink – Rose	Cytoplasm

Tones are redder than when stained with Giemsa alone.

References:

Beck, R.C., Laboratory Manual of Hematological Technique, W.B. Saunders & Co., Philadelphia, c1938, pp233 - 236

Clark, G., (ed.), Staining Procedures, 3rd Edition, William & Wilkins, Baltimore, pp131 & 132, c 1973.
Strumia, M.M., J. Lab. Clin. Med., 21:930-934, 1935 – 1936.

Luma, L.G., (ed.) Manual of Histologic Staining Method of the AFIP, 3rd edition, McGraw-Hill, NY, pp 121 & 122, c1968.