



2-12. Van Gieson Stain ([Ref 8](#))

Staining Procedures For Plastic Embedded Tissue

Verified at the Applications Laboratory of the Biomedical Division, Sorvall Microtomes

SOLUTIONS:

Celestin Blue Solution

0.5g	Celestin blue
5.0g	Ammonium ferric sulfate
100.0ml	Distilled water
	Filter before use.

Weigert's Hematoxylin

See formula in procedure 2-7, c

Van Gieson's Solution

20.0ml	Acid fuchsin, 1%
25.0ml	Picric acid, saturated

STAINING PROCEDURE:

1. Treat in celestin blue for 10 minutes.
2. Rinse in distilled water.
3. Stain in Weigert's hematoxylin for 10 minutes.
4. Rinse in tap water.
5. Differentiate in acid alcohol for 2 to 3 quick dips.
6. Wash in tap water very briefly.
7. Dip in ammonia water until sections are bright blue; 2-3 dips.
8. Wash in running tap water for 10-20 minutes.
9. Stain in Van Gieson's solution for 15 minutes or longer.
10. Wash in distilled water.
11. Blow dry.
12. Mount.Solutions:

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RESULTS:

Nuclei stain -- black; muscle -- yellow; collagen -- red. Very thin sections are often pale since less material is available to accept stain.

Warning: Some of the chemicals used for the staining procedures given in this section may be hazardous if misused. For this reason, read and observe all warnings and cautions provided by the manufacturer for each chemical before proceeding with a staining procedure.

Note: In order to prevent sections from loosening from the slides during staining, all sections should be heat-fixed (60°C to 100°C) to the slides for a minimum of 2-5 minutes prior to staining, preferably at the time the sections are mounted on the slides.