

**F-364    LILLIE MODIFACATION OF MASSON'S  
TRICHROME STAIN**

**FIXATION:**    **BOUIN'S** (F-40) or **ZENKER'S STOCK** (F-155)

**SECTION:**    Cut Paraffin sections at 6 microns

**STAINING PROCEDURE:**

1. If Zenker's is used as the fixative, remove Mercuric Chloride Crystals by placing in **Lugol's Iodine** (F-364-9) or **Gram's Iodine** (F-364-9A) for 15 minutes. Rinse in water and clear in **Sodium Thiosulfate, 5%** (F-364-10) for 3 minutes. Wash in water for 10 minutes or longer.
2. Stain in Weigert's Iron Hematoxylin working solution for 5 minutes. Wash in running water.  
\*To prepare working solution, mix equal parts of **Weigert's Iron Hematoxylin A,** (F-364-3) and **Weigert's Iron Hematoxylin B,** (F-364-2).
3. Stain in **Biebrich Scarlet Solution** (F-364-6) for 4 minutes. Rinse in water.
4. Mordant in **Phosphomolybdic-Phosphotungstic Acid** (F-364-1) for 1 minute.
5. Stain in **Fast Green FCF Solution** (F-364-7), for 4 minutes.
6. Differentiate in **Acetic Acid, 1%** (F-364-8), for 1 minute.
7. Carry through alcohol and dehydrate with acetone or absolute alcohol.
8. Clear and Mount in balsam saturated with salicylic acid.

**RESULTS:**

Nuclei.....black  
Cytoplasm.....brown to pink  
Muscle.....red  
Erythrocytes.....brilliant scarlet  
Collagen.....blue to blue-green  
Myelinated fibers.....red  
Fibrin.....red to pink

**REFERENCES:**

Clark, G.: Staining Procedures. Williams and Wilkins Co., Baltimore.  
3<sup>rd</sup> ed., c. 1973 p. 59.

Lillie, R.D., Arch. Path., 29:705, 1940