

# Elastic Stain Kit

## (Modified Verhoff's)

**Description:** The Elastic Stain Kit is intended for use in histological demonstration of elastin in tissue sections. Demonstration of elastic tissue is useful in cases of emphysema (atrophy of elastic tissue), arteriosclerosis (thinning and loss of elastic fibers) and various other vascular diseases.

Elastic fibers:	Black to Blue/Black
Nuclei:	Blue to Black
Collagen:	Red
Muscle & Other:	Yellow

**Uses/Limitations:** For In-Vitro Diagnostic use only.  
Histological applications.  
Do not use past expiration date.  
Use caution when handling these reagents.

**Control Tissue:** Lung or any vascular tissue.

### Availability/Contents:


<u>Kit Contents</u>	<u>Volume</u>	<u>Storage</u>
Hematoxylin Solution (5%)	250ml	Room Temperature
Ferric Chloride (10%, Aqueous)	125 ml	Room Temperature
Lugol's Iodine Solution	125 ml	Room Temperature
Ferric Chloride (2%) Differentiating Solution	125 ml	Room Temperature
Sodium Thiosulfate Solution (5%)	125 ml	Room Temperature
Van Gieson's Solution	125 ml	Room Temperature

**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.  
Wear protective clothing.

### Preparation of Reagents Prior to Beginning:

1. Prepare working Elastic Stain Solution by mixing 30ml Hematoxylin Solution (5%) with 12ml Ferric Chloride Solution (10%) and 12ml Lugol's Iodine Solution. Mixed solution may be used for 24 hours.

**Note:** Removal of mercury deposits is not required for tissues that have been fixed in mercury containing fixatives since it will be removed by the staining solution.

Storage: 18° C  25° C


**Store Components at Room Temperature.**

### Procedure (Standard):

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Place slides in working Elastic Stain Solution for 15 minutes.
3. Rinse in running tap water until no excess stain remains on slide.
4. Dip slides in Ferric Chloride (2%) Differentiating Solution 15-20 times and rinse in tap water.
5. Check slides microscopically for proper differentiation. Repeat step 4 if required.
6. Rinse in running tap water.
7. Place slides in Sodium Thiosulfate Solution (5%) for 1 minute.
8. Rinse in tap water.
9. Stain slide using Van Gieson's Solution for 2-5 minutes.
10. Rinse in two changes of 95% alcohol.
11. Dehydrate in absolute alcohol.
12. Clear, and mount in synthetic resin.

### References:

1. Prophet, E.B., et al. A.F.I.P. Laboratory Methods in Histotechnology. Page 134, 1994.
2. Carson, F.L., Histotechnology: A Self Instructional Text, ASCP Press, Chicago, IL. Pages 138-139, 1990.
3. Sheenan, D.C., Hrapchak, B.B. Theory and Practice of Histotechnology, 2<sup>nd</sup> Edition. CV Mosby, St. Louis, MO. Pages 196-197, 1980.
4. Mallory, F.B. Pathological Technique, 3<sup>rd</sup> Edition. Hafner Publishers, New York. Page 169, 1968.

Storage: 18° C  25° C

**Store Components at Room  
Temperature.**