

### Instructions For Use

### ETS-2-IFU

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P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 - Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

## 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:** Not to be taken internally.

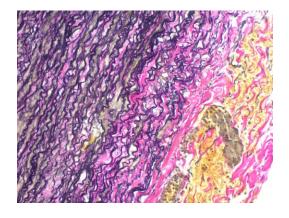
For In-Vitro Diagnostic use only.

Histological applications.

Do not use past expiration date. Use caution when handling reagents.

Non-Sterile.

Control Tissue: Lung or any vascular tissue.



### **Availability/Contents:**

Item #	Kit Contents	<u>Volume</u>	Storage
HSV060	Hematoxylin Solution (5%)	60ml	18-25°C
FCC030	Ferric Chloride (10%, Aqueous)	30 ml	18-25°C
LIS030	Lugol's lodine Solution	30 ml	18-25°C
FCB060	Ferric Chloride (2%) Differentiating Solution	60 ml	18-25°C
STB030	Sodium Thiosulfate Solution (5%)	30 ml	18-25°C
VGS030	Van Gieson's Solution	30 ml	18-25°C
N/A	Graduated Mixing Vial		

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.

Storage: 18° C

ScyTek Laboratories, Inc. 205 South 600 West Logan, UT 84321 U.S.A.

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Emergo Europe
Prinsessegracht 20
2514 AP The Hague, The Netherlands



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### **Preparation of Reagents Prior to Beginning:**

Prepare working Elastic Stain Solution by mixing in enclosed graduated vial:

- User must provide a dropper or pipette for Lugol's Iodine Solution (1 drop = ~40µl)

5 Parts Hematoxylin Solution (5%) 2 Part Ferric Chloride Solution (10%) 2 Part Lugol's Iodine Solution.

Example: 20 drops (800µl) + 8 drops (320µl) + 8 drops (320µl)

Total: 1,440µl or 1.44mls

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- Mixed solution may be used for 24 hours.
- We suggest making and using at least 1ml per slide as the solution is high in alcohol content and has the potential to dry out on the slide.
- 2. **Note:** Lugol's lodine Solution will cause staining of all kit vials and labels over time. This does not adversely affect the performance of this product and is merely cosmetic in nature.
- 3. **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.

#### Procedure (All steps at room temperature):

- 1. Deparaffinize sections if necessary and hydrate to distilled water.
- 2. Pour "working" Elastic Stain Solution over tissue section and incubate for 15 minutes.
- 3. Rinse in running tap water to remove excess stain
- 4. Differentiate by applying Ferric Chloride (2%) Differentiating Solution dropwise while allowing stain to drip off the slide. We suggest starting with 10-20 drops. Rinse with tap water.
- 5. Check slides microscopically for proper differentiation. Repeat step 4 if required.
- 6. Apply 4-5 drops of Sodium Thiosulfate Solution (5%) to tissue section and incubate for 1 minute.
- Rinse once in tap water followed by 2 dips in DI/Distilled water.
- 8. Apply 4-5 drops of Van Gieson's Solution to tissue section and incubate for 2-5 minutes.
- 9. Rinse in two changes of 95% alcohol.
- 10. Dehydrate in absolute alcohol.
- 11. Clear, and mount in synthetic resin.

#### References:

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- 2. Prophet, E.B., et al. A.F.I.P. Laboratory Methods in Histotechnology. Page 134, 1994.
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- 4. O'Connor, W.N., Valle, S., A Combination Verhoff's Elastic and Masson's Trichrome Stain for Routine Histology. Stain Technology, 1982 July; 57(4): pages 207-210.

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5. 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.

6. Mallory, F.B. Pathological Technique, 3<sup>rd</sup> Edition. Hafner Publishers, New York. Page 169, 1968.

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