



## Elastic Stain Kit, Verhoeff

### Solutions Provided:

- #SSC1042-250 - **Alcoholic Hematoxylin, 5%**
- #SSC1073-250 - **Ferric Chloride, 10%**
- #SSC1090-250 - **Iodine Solution, Lugol**
- #SSC1131-250 - **Sodium Thiosulfate, 5%**
- #SSC1135-250 - **Van Gieson's Stain**

Working solution preparation (*prepare just before use*):

### Verhoeff Elastic Stain

Alcoholic Hematoxylin, 5%: 20mL  
Ferric Chloride, 10%: 8mL  
Iodine Solution, Lugol: 8mL

### Ferric Chloride, 2% (Differentiating Solution)

Ferric Chloride, 10%: 10mL  
Distilled Water: 40mL

### Conventional Procedure

1. Deparaffinize and hydrate sections through alcohol to distilled water.
2. Stain sections in **Verhoeff Elastic Stain** for **15 minutes**.  
Some users will stain sections for up to 1 hour in this solution as various procedures suggest.
3. Differentiate sections in **Ferric Chloride, 2%** until elastic fibers are distinct and the background is colorless to light grey. This should be done in small increments and checked microscopically for proper differentiation.\*  
\*If the section has been over-differentiated and the fibers are not visible, re-stain sections in **Verhoeff Elastic Stain** and repeat.
4. Rinse slides in distilled or running tap water.
5. Place sections in **Sodium Thiosulfate, 5%** for **1 minute**.
6. Rinse in running tap water for several minutes.
7. Counterstain with **Van Gieson's Stain**. Staining time will vary depending on tissue type, size and personal preference. Times ranging 30 seconds to 5 minutes will be required.
8. Dehydrate in 100% alcohol.
9. Clear and mount with appropriate mounting medium.

### Results:

Elastic Fibers: Black  
Nuclei: Blue-Black  
Collagen: Red  
Other Tissue: Yellow