

**Use**

Demonstration of Elastin in tissue sections

**Reagents**

1	- Haematoxylin stock solution	100ml	2	- Ferric chloride reagent	30ml
3	- Iodine mordant	50ml	3	- Van Gieson stain	50ml

**Storage & Stability**

Store all reagents at room temperature (16-26°C).

**Additional Reagents Required**

Formaldehyde solution 10% neutral buffered.

Ethanol (IMS 95%)

Xylene

**Safety Data Section**

Reagent components in this kit are for 'In-Vito' diagnostic use only. No liability will be accepted for their mis-use. Standard precautions in handling laboratory reagents should be followed. Do not consume. Wear suitable face / body protection when in use.

R: 1-2-4-5-11-16-21-22-23-24-25-36-37-38-40-50 S: 2-13-16-24-25-26-28 soap& water-36-56-61

Haematoxylin stock reagent is HIGHLY FLAMMABLE. Contains Ethanol and organic dyestuffs.

Ferric chloride solution is CORROSIVE. It causes burns. Harmful in contact with skin and if swallowed. Contains <35% Ferric chloride.

Iodine mordant is TOXIC. Harmful by inhalation, in contact with skin and if swallowed.

Van-Giesons stain is TOXIC. Maybe Explosive when dry. Toxic by inhalation in contact with skin and if swallowed. Contains organic dyestuffs and Picric acid. Picric acid <2% in aqueous solution.

**Waste disposal.**

Haematoxylin solution can be evaporated to atmosphere or diluted to public sewer using large volumes of water.

Ferric chloride solution can be diluted to public sewer with large volume of water.

Iodine mordant can be diluted to public sewer with large volume of water.

Van gieson stain contains picric acid ,2% w/v. Consult local regulations ( Sewer operator) before disposal to public sewer or dispose of through a licensed waste disposal contractor.

**Specimen Collection.**

Sections fixed in 10% neutral buffered formalin and cut at 4-6 microns.

All tissue samples should be considered potentially infectious material. Take appropriate precautions.

**REAGENT PREPARATION AND SET-UP**

Based on Coplin jar volumes if an alternative (smaller) staining container is used for economy reasons please divide the reagent volumes accordingly.

(A) Prepare Elastic stain as follows:

To a coplin jar add

Haematoxylin stock solution	20ml	Ferric chloride solution (30%)	3ml
Iodine mordant	8ml	Deionised water	5ml

Mix well.

(B) Prepare Ferric chloride differentiator reagent as follows:

To a coplin jar add:

Ferric chloride solution (30%)	3ml	Deionised water	37ml
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Mix well.

## **Technique**

- 1 - Bring sections through xylene and alcohols to water. Rinse in deionised water.
- 2 - Place in freshly prepared Elastin Stain (A above) for 10 minutes.
- 3 - Rinse in deionised water.
- 4 - Immerse slides in prepared Ferric chloride Differentiator (B above) for a few seconds at a time. this step should be controlled microscopically. Differentiation should be stopped when nuclei and fine fibres are still black and the background still weakly stained. (This is because further differentiation takes place in the Van-Gieson reagent.
- 5 - If over differentiated – return to the Elastin stain to increase stain intensity.
- 6 - Rinse in deionised water.
- 7 - Wash well in 95 % Ethanol (IMS 95%) to remove iodine background staining.
- 8 - Rinse in deionised water.
- 9 - Stain in Van-Giesons stain for 1-2 minutes.
- 10 - Rinse in 95% Ethanol (IMS 95%).
- 11 - Dehydrate rapidly to xylene and mount in DPX.

## **Results.**

Elastic Fibres	-	Black
Collagen	-	Red
Muscle	-	Yellow
Nuclei	-	Blue-black

## **Unsatisfactory performance**

As part of our duty to monitor product performance and our policy of continual improvement. Please report to us any unsatisfactory performance you may experience with this product. If any reagent degrades before expiry of shelf life we will replace that reagent free of charge. GCC Diagnostics guarantees the quality of this product, the user should however determine the suitability of this product for their intended use.

**GCC Diagnostics [Gainland Chemical Co] Factory Rd. Sandycroft Deeside Flintshire  
CH5 2QJ United Kingdom**

Tel: [0044] 01244 536326 Fax:[0044] 01244 531254

E-mail: [sandralewis@gccdiagnostics.com](mailto:sandralewis@gccdiagnostics.com) Website: [www.gccdiagnostics.com](http://www.gccdiagnostics.com)



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