



VitroView™ Movat Pentachrome Stain Kit

SKU No. VB-3023

Introduction

The VitroView™ Movat Pentachrome Stain Kit (Modified Russel-Movat) is intended for use in histological visualization of collagen, muscle tissue, reticular fibers, mucins and fibrin in tissue sections. This kit is a very useful tool to study the heart, blood vessels and various vascular diseases.

Kit Components

SKU#	Reagent Name	Volume (ml)
VB-3023-1	Alcoholic Hematoxylin (5%)	250
VB-3023-2	Ferric Chloride Solution (10%)	125
VB-3023-3	Iodine Solution	125
VB-3023-4	Ferric Chloride Solution (2%)	125
VB-3023-5	Sodium Thiosulfate Solution (5%)	125
VB-3023-6	Acetic Acid Solution (3%)	125
VB-3023-7	Alcian Blue Solution, pH 2.5	125
VB-3023-8	Biebrich Scarlet–Acid Fuchsin Solution	125
VB-3023-9	Acetic Acid Solution (1%)	250
VB-3023-10	Phosphotungstic Acid Solution (5%)	250
VB-3023-11	Metanil Yellow Solution	125

Storage

Room temperature.

Protocol

Things to do before starting the procedures:

Prepare a working Hematoxylin Solution by mixing 30 ml of Hematoxylin (5%) Solution, 15 ml of Ferric Chloride Solution (10%) and 15 mL of Iodine Solution.

Note: Mixed solution may be used for 24 hours; Iodine 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; Removal of deposits is not required for tissues that have been fixed in containing fixatives since it will be removed by the staining solution

For formalin-fixed, paraffin-embedded (FFPE) tissue sections:

1. Deparaffinize in Xylene I for 6 minutes and II for 6 minutes.
2. Rehydrate.
 - a. Ethanol 100% (2 minutes)
 - b. Ethanol 100% (2 minutes)
 - c. Ethanol 95% (2 minutes)
 - d. Ethanol 95% (2 minutes)
 - e. Ethanol 70% (2 minutes)
3. Rinse in distilled water (5 minutes).

4. Stain tissue section with working Hematoxylin Solution for 20 minutes.
5. Rinse in running tap water until no excess stain remains on slide.
6. Dip slide in Ferric Chloride (2%) Differentiating Solution 15-20 times and rinse in tap water
7. Check slides microscopically for proper differentiation. Repeat step 3 if required.
8. Rinse in 2 changes of distilled water.
9. Place slide in Sodium Thiosulfate Solution (5%) and incubate for 1 minute.
10. Rinse in tap water for 2 minutes followed by 2 changes in distilled water.
11. Place slide in Acetic Acid Solution (3%) and incubate for 2 minutes to equilibrate tissue prior to staining with Alcian Blue Solution, pH 2.5.
12. Without rinsing, place slide in Alcian Blue Solution, pH 2.5 and incubate for 25 minutes. Rinse in tap water for 2 minutes followed by 2 changes in distilled water.
13. Place slide in Biebrich Scarlet–Acid Fuchsin Solution and incubate for 2 minutes.
14. Rinse slide in 2 changes of distilled water.
15. Place slide in Acetic Acid Solution (1%) for 5-10 seconds with agitation.
16. Rinse quickly in distilled water.
17. Differentiate slide in 2 changes of Phosphotungstic Acid Solution (5%) for 3-7 minutes each.
18. Check slides microscopically for proper differentiation.
19. Collagen should be clear but elastic fibers should still be stained. Repeat step 17 if required.
20. Rinse slide briefly in distilled water.
21. Dip slide several times (3-5) in Acetic Acid Solution (1%).
22. Shake off excess Acetic Acid Solution (1%) and without rinsing apply Metanil Yellow Solution and incubate for 10 minutes.
23. Rinse slide in 2 changes of absolute alcohol (1 min per change)
24. Clear with 2 changes of xylene (5 minutes per change) and coverslip with Permount or other suitable organic mounting medium.

Expected results

Nuclei and Elastic Fibers	Black to blue black
Ground Substance and Mucin	Bright blue
Muscle	Red
Collagen	Yellow to red
Reticular Fibers	Yellow
Fibrinoid and Fibrin	Intense Red

Control Tissue:

- Lung, skin, colon, heart or any vascular tissue.

Note

This product is intended for research purposes only. This product is **not** intended to be used for therapeutic or diagnostic purposes in humans or animals.

Precautions

Handle with care. Avoid contact with eyes, skin and clothing. Do not ingest. Wear gloves.