Movat Pentachrome Stain Kit (Modified Russell-Movat)

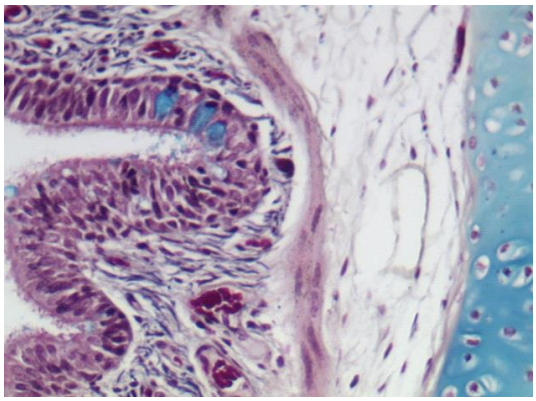
Description: The Movat Pentachrome Stain Kit (Modified Russel-Movat) is intended for use in histological demonstration of collagen, elastin, muscle, mucin and fibrin in tissue sections. This procedure is particularly useful when studying the heart, blood vessels and various vascular diseases.

Uses/Limitations: Not to be taken internally. For In-Vitro Diagnostic use only. Histological applications. Do not use if reagents become cloudy. Do not use past expiration date. Use caution when handling reagents. Non-Sterile.

Control Tissue: Lung, Skin, Colon, Heart or any vascular tissue.

Results:

Elastic Fibers:	Black to Blue/Black
Nuclei:	Blue/Black
Collagen:	Yellow
Reticular Fibers:	Yellow
Mucin:	Bright Blue
Fibrin:	Bright Red
Muscle:	Red



Kit Contents:

Item #	Kit Contents	Volume	Storage
SSC-HSV250	Hematoxylin Solution (5%)	250ml	18-25°C
SSC-FCC125	Ferric Chloride (10%, Aqueous)	125 ml	18-25°C
SSC-LIS125	Lugol's Iodine Solution	125 ml	18-25°C
SSC-FCB125	Ferric Chloride (2%) Differentiating Solution	125 ml	18-25°C
SSC-STB125	Sodium Thiosulfate Solution (5%)	125 ml	18-25°C
SSC-AAG125	Acetic Acid Solution (3%)	125 ml	18-25°C
SSC-AAE250	Acetic Acid Solution (1%)	250 ml	18-25°C
SSC-ANC125	Alcian Blue Solution (1%)	125 ml	18-25°C
SSC-BSU125	Biebrich Scarlet – Acid Fuchsin Solution	125 ml	18-25°C
SSC-PGC250	Phosphotungstic Acid Solution (5%)	250 ml	18-25°C
SSC-TZQ125	Tartrazine Solution	125 ml	18-25°C

For Information regarding ordering individual components, please contact us a: 800-442-3573.

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%)
   15ml Ferric Chloride Solution (10%)
   15ml Lugol's Iodine Solution.
   Mixed solution may be used for 24 hours.

2. **Note:** Lugol's 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.

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 (Standard):

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Stain tissue section with working Elastic Stain Solution for 20 minutes.
3. Rinse in running tap water until no excess stain remains on slide.
4. Dip slide 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 2 changes of distilled water.
7. Place slide in Sodium Thiosulfate Solution (5%) and incubate for 1 minute.
8. Rinse in tap water for 2 minutes followed by 2 changes in distilled water.
9. Place slide in Acetic Acid Solution (3%) and incubate for 2 minutes to equilibrate tissue prior to staining with Alcian Blue Solution (1%).
10. Without rinsing, place slide in Alcian Blue Solution (1%) and incubate for 25 minutes.
11. Rinse in tap water for 2 minutes followed by 2 changes in distilled water.
12. Place slide in Biebrich Scarlet – Acid Fuchsin Solution and incubate for 3 minutes.
13. Rinse slide in 2 changes of distilled water.
14. Place slide in Acetic Acid Solution (1%) for 5-10 seconds with agitation.
15. Rinse quickly in distilled water.
16. Differentiate slide in 2 changes of Phosphotungstic Acid Solution (5%) for 3 minutes each.
17. Check slides microscopically for proper differentiation. Collagen should be clear but elastic fibers should still be stained. Repeat step 15 if required.
18. Dip slide several times (3-5) in Acetic Acid Solution (1%).
19. Shake off excess Acetic Acid Solution (1%) and without rinsing apply Tartrazine Solution and incubate for 1 minute.
20. Rinse slide in 3 changes of absolute alcohol.
21. Clear, and mount in synthetic resin.

References:

1. Movat, H.Z. Demonstration of all connective tissue elements in a single section, Arch Pathology, 1955 Volume 60, page 289.

Lot-to-Lot Validation Form
Movat Stain Kit Catalog: SSK-MOVAT

Kit Lot Number: _____

Kit Expiration Date: _____

Date Tested: _____

Control Tissue (#) _____

Approved for Use: Y/N _____

Date put into use:

If not approved, corrective actions taken:	

Approved by: _____

Kit Component	**Lot #**
Hematoxylin Solution (5%)	
Ferric Chloride (10%, aqueous)	
Lugol's Iodine Solution	
Ferric Chloride (2%) Differentiating Solution	
Tartrazine Solution	
Acetic Acid Solution (3%)	
Acetic Acid Solution (1%)	
Alcian Blue Solution, pH 2.5	
Phosphotungstic Acid (5%)	
Biebrich Scarlet – Acid Fuchsin Solution	
Sodium Thiosulfate Solution (5%)	

Replacement Component if used	Replacement Date	Lot #	Accepted Y/N	Comments
Hematoxylin Solution (5%)				
Ferric Chloride (10%, aqueous)				
Lugol's Iodine Solution				
Ferric Chloride (2%) Differentiating Solution				
Tartrazine Solution				
Acetic Acid Solution (3%)				
Acetic Acid Solution (1%)				
Alcian Blue Solution, Ph 2.5				
Phosphotungstic Acid (5%)				
Biebrich Scarlet – Acid Fuchsin Solution				
Sodium Thiosulfate Solution (5%)				
Approved By:				

StatLab is providing this form to assist with reagent lot validation as stated in CLIA'88 Standard 493.1256-For reagent(s), the laboratory must do the following: Check each batch (prepared in-house), lot number (commercially prepared) and shipment of reagents, stains, and identification systems (systems using two or more substrates or two or more reagents, or a combination) when prepared or opened for positive and negative reactivity, if applicable.