

## Instructions For Use

## MPS-2-IFU

Rev. Date: April 10, 2018

**Revision: 3** 

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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

## Movat Pentachrome Stain Kit

(Modified Russell-Movat)

**Description:** The Movat Pentachrome Stain Kit (Modified Russell-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.

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

Muscle: Red

**Uses/Limitations:** Not to be taken internally.

For In-Vitro Diagnostic use only.

Histological applications.

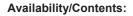
Do not use if reagents become cloudy. Do not use past expiration date. Use caution when handling reagents.

Non-Sterile.

Control Tissue: Lung, Skin, Colon, Heart

or any vascular tissue.

## Ordering information regarding individual components on back page!



Item #	Kit Contents	<u>Volume</u>	<b>Storage</b>
HSV060	Hematoxylin Solution (5%)	60ml	18-25°C
FCC030	Ferric Chloride (10%, Aqueous)	30 ml	18-25°C
LIS030	Lugol's Iodine Solution	30 ml	18-25°C
FCB030	Ferric Chloride (2%) Differentiating Solution	30 ml	18-25°C
STB030	Sodium Thiosulfate Solution (5%)	30 ml	18-25°C
AAG030	Acetic Acid Solution (3%)	30 ml	18-25°C
AAE060	Acetic Acid Solution (1%)	60 ml	18-25°C
ANC030	Alcian Blue Solution, pH 2.5	30 ml	18-25°C
BSU030	Biebrich Scarlet – Acid Fuchsin Solution	30 ml	18-25°C
PGC060	Phosphotungstic Acid Solution (5%)	60 ml	18-25°C
MYQ030	Metanil Yellow Solution	30 ml	18-25°C
	Graduated Mixing Vial	Qty 1	



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

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2514 AP The Hague, The Netherlands

Doc: IFU-Template18-25rev2



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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 in enclosed graduated vial:

2 Parts Hematoxylin Solution (5%)

1 Part Ferric Chloride Solution (10%)

1 Part Lugol's Iodine Solution.

Example: 10 drops + 5 drops + 5 drops

Mixed solution may be used for 24 hours.

- 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. 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.

Note: Working Elastic Stain Solution has a high alcohol content and will evaporate when using the dropper method.

Check slide periodically during staining and add solution as required. Do Not allow reagent to dry on tissue.

- Rinse in running tap water until no excess stain remains on slide. 3
- Apply 15-20 drops of Ferric Chloride (2%) Differentiating Solution allowing stain to drip off the slide. 4.
- 5. Rinse in tap water.
- 6. Check slides microscopically for proper differentiation. Repeat step 4 if required.
- Rinse in 2 changes of distilled water. 7.
- 8. Apply 5-10 drops of Sodium Thiosulfate Solution (5%) and incubate for 1 minute.
- Rinse in tap water for 2 minutes followed by 2 changes in distilled water. 9
- Apply 5-10 drops of Acetic Acid Solution (3%) and incubate for 2 minutes to equilibrate tissue prior to staining with Alcian 10. Blue Solution, pH 2.5.
- Shake off excess Acetic Acid and without rinsing, apply 5-10 drops of Alcian Blue Solution, pH 2.5 and incubate for 25 11. minutes.
- 12. Rinse in tap water for 2 minutes followed by 2 changes in distilled water.

Storage: 18° C

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- 13. Apply 5-10 drops of Biebrich Scarlet / Acid Fuchsin Solution and incubate for 10 minutes.
- 14. Rinse slide in 2 changes of distilled water.
- 15. Apply several drops Acetic Acid Solution (1%) for 5-10 seconds with agitation.
- 16. Rinse quickly in distilled water.
- 17. Differentiate slide in 2 changes of 5-10 drops Phosphotungstic Acid Solution (5%) for 3-7 minutes each.
- 18. Check slides microscopically for proper differentiation. Collagen should be clear but elastic fibers should still be stained. Repeat step 17 if required.
- 19. Rinse quickly in distilled water.
- 20. Apply 5-10 drops of Acetic Acid Solution (1%) allowing reagent run across the tissue section and drip off slide.
- 21. Shake off excess Acetic Acid Solution (1%) and without rinsing apply 5-10 drops of Metanil Yellow Solution and incubate for 15 minutes.
- 22. Rinse slide in 3 changes of absolute alcohol.
- 23. 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.

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#### Bulk Reagent Ordering Information and Current Pricing at www.scytek.com

Description:	Catalog #	Volume
Hematoxylin Solution (5%)	HSV250 HSV500 HSV999	250 ml 500 ml 1000 ml
Ferric Chloride Solution (10%)	FCC125 FCC500 FCC999	125 ml 500 ml 1000 ml
Lugol's lodine Solution	LIS125 LIS500 LIS999	125 ml 500 ml 1000 ml
Ferric Chloride (2%) Differentiating Solution	FCB125 FCB500 FCB999	125 ml 500 ml 1000 ml
Sodium Thiosulfate Solution (5%)	STB125 STB500 STB999	125 ml 500 ml 1000 ml
Acetic Acid Solution (3%)	AAG125 AAG500 AAG999	125 ml 500 ml 1000 ml
Acetic Acid Solution (1%)	AAE125 AAE250 AAE500 AAE999	125 ml 250 ml 500 ml 1000 ml
Alcian Blue Solution, pH 2.5	ANC125 ANC250 ANC500 ANC999	125 ml 250 ml 500 ml 1000 ml
Biebrich Scarlet – Acid Fuchsin solution	BSU125 BSU500 BSU999	125 ml 500 ml 1000 ml
Phosphotungstic Acid Solution (5%)	PGC250 PGC500 PGC999	250 ml 500 ml 1000 ml
Metanil Yellow Solution	MYQ125 MYQ500 MYQ999	125 ml 500 ml 1000 ml

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