



Instructions For Use

SML-IFU

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Schmorl's Stain Kit (For Melanin and Reducing Substances)

Description and Principle

The Schmorl's Stain Kit is intended for use in the histologic visualization of reducing substances including melanin and argentaffin cell granules. This product utilizes a Turnbull blue reaction. Ferric iron ions are reduced to ferrous ions by reducing substances in the tissue. Ferrous iron combines with ferricyanide to form an insoluble blue ferrous ferricyanide product.

Expected Results

Melanin and Reducing Substances:	Blue
Nuclei:	Red
Background:	Pink

Kit Contents

1. Ferric Chloride Solution (2%)	
2. Potassium Ferricyanide Solution (1%)	
3. Nuclear Fast Red Solution	

Storage

18-25°C
18-25°C
18-25°C

Suggested Controls (not provided)

Tissue containing Hair Follicles or Skin for Melanin. Small Intestine or Appendix for Argentaffin Granules.

Uses/Limitations

For Research Use Only.

Do not use if reagents become cloudy or precipitate

Do not use past expiration date.

Use caution when handling reagents.

Non-Sterile

Intended for FFPE sections cut at 5-10µm.

This procedure has not been optimized for frozen sections.

Frozen sections may require protocol modification.

Storage

Store kit and all components at room temperature (18-25°C).

Safety and Precautions

Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements.

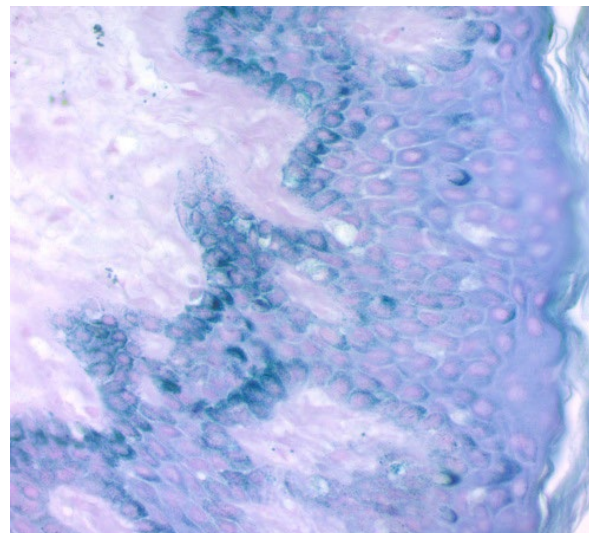
Prepare the Following Solution Immediately Before Use

Working Melanin Stain Solution:

3 part	Ferric Chloride Solution (2%)
3 part	Distilled Water
2 parts	Potassium Ferricyanide Solution (1%)

Example: 3 mls Ferric Chloride Solution (2%), 3 mls Distilled Water, 2 mls Potassium Ferricyanide Solution (1%).

Example (dropper): 15 drops Ferric Chloride Solution (2%), 15 drops Distilled Water, 10 drops Potassium Ferricyanide Solution (1%). Total: 1600 µls or 1.60 mls (1 drop ≈ 40 µls)



Melanin in Human Skin stained with Schmorl's Stain Kit. Viewed at 400X magnification.

Procedure

Note: Use acid-washed or bleach-washed glassware. Rinse all glassware thoroughly with distilled water prior to use. Do not use metal forceps to transfer slide during staining procedure.

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Incubate slide in Working Melanin Stain Solution for 5-10 minutes.
3. Rinse thoroughly in distilled water.
4. Stain slide in Nuclear Fast Red Solution for 5 minutes.
5. Rinse in 4 changes of distilled water.
6. Dehydrate in 3 changes of absolute alcohol.
7. Clear, and mount in synthetic resin.

References

1. Carson, F.L., Histotechnology; A Self-Instructional Text. 3rd ed., ASCP Press, Chicago, IL. Pages 259-260. 2009.



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