



# Instructions For Use

## FMS-IFU

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## Fontana-Masson Stain Kit

(For Argentaffin Cells and Melanin)

### Description and Principle

The Fontana-Masson Stain Kit is intended for use in the histological visualization of Melanin and other argentaffin substances. Substances that can bind silver and reduce it to a visible metallic form without a separate reducing agent are said to be "argentaffin". Fontana-Masson stain has been reported to be useful in the identification of Capsule-Deficient *Cryptococcus neoformans* and typical *Cryptococcus neoformans*. Argentaffin granules and Melanin are demonstrated by silver impregnation using an Ammoniacal Silver Solution.

### Expected Results

Argentaffin Cell Granules:	Black
Melanin:	Black
Cryptococci Cell Wall:	Black
Nuclei:	Red
Cytoplasm:	Light Pink

### Kit Contents

Kit Contents	Storage
1. Gold Chloride Solution (0.2%)	2-8°C
2. Silver Nitrate Solution (10%)	2-8°C
3. Sodium Thiosulfate Solution (5%)	18-25°C
4. Nuclear Fast Red Solution	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 In-Vitro Diagnostic 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

Mixed storage conditions. Store according to individual label instructions.

### Safety and Precautions

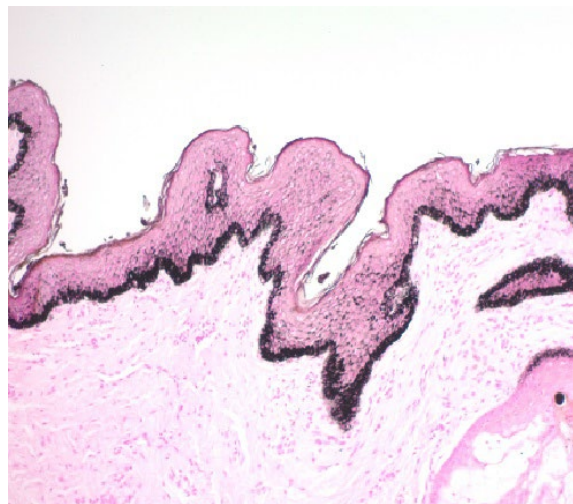
Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements.

### Required but not Included

Concentrated Ammonium Hydroxide Solution (25-30%)

### Important Notes

- All glassware used in this procedure should be chemically cleaned and rinsed thoroughly in distilled water.
- Do not use metal forceps to remove slides from reagents. Use plastic forceps only.
- Equilibrate all reagents to room temperature prior to use.



Melanin in the basal layer of the epidermis of Human Skin stained with Fontana-Masson Stain. Magnification 100X

### Preparation of Reagent Prior to Beginning:

Prepare **Ammoniacal Silver Solution** immediately prior to use.

In new or chemically cleaned glassware, mix 27ml Distilled/Deionized water with one vial of Silver Nitrate Solution (10%) and blend completely. Carefully add Concentrated Ammonium hydroxide (25-30%) (Not included) one drop at a time, swirling gently after each drop. Initially the mixture will turn dark brown and then gradually become transparent with a fine layer of sediment. The solution is ready for immediate use when all sediment dissolves.

### Procedure

- Deparaffinize sections if necessary and hydrate to distilled water.
- Place freshly mixed Ammoniacal Silver Solution in a 58-60°C water bath and allow adequate time for temperature to equalize.
- Incubate slide in warmed Ammoniacal Silver Solution for 30-60 minutes or until tissue section becomes yellowish/brown in color. (NOTE: Melanin typically stains in 30 minutes while Argentaffin granules stain in 50-60 minutes)
- Rinse in 3 changes of distilled water.
- Incubate slide in Gold Chloride Solution (0.2%) for 30 seconds.
- Rinse in 3 changes of distilled water.
- Incubate slide in Sodium Thiosulfate Solution (5%) for 1-2 minutes.
- Rinse for 2 minutes in running tap water followed by 2 changes of distilled water.
- Incubate slide in Nuclear Fast Red Solution for 5 minutes.
- Rinse for 2 minutes in running tap water followed by 2 changes of distilled water.

11. Dehydrate very quickly in 3 changes of absolute alcohol.

12. Clear, and mount in synthetic resin.

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