

Cell Marque™ Tissue Diagnostics

Rapid Fontana-Masson Staining

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Background

The Fontana-Masson stain is used in the histological visualization of melanin and argentaffin (silver-binding) cells, found in tissue sections. Fontana-Masson staining is used for demonstration of melanin and argentaffin granules in carcinoid tumors and some neurosecretory granules.¹ Argentaffin cells and melanin possess the ability to bind silver from a silver solution and reduce it to visible metallic silver without the need of a reducing agent.¹

The standard protocol, room temperature at 24°C, for this stain is 60 minutes for argentaffin or 30 minutes for melanin detection. The purpose of this study is to evaluate a new rapid microwave protocol designed to be 30x faster than the standard.

Design

With the aim of saving time, a rapid microwave protocol for the MilliporeSigma Fontana-Masson Staining Kit was optimized using argentaffin (human intestine) and melanin (human skin) tissue section (FFPE) slides. The microwave protocol was compared to a standard Fontana-Masson protocol as well as to another commercially available kit. The robustness of the Fontana-Masson staining reagents was also challenged in a three year accelerated stability study.

Materials

Fontana-Masson Stain Kit
Nuclear Fast Red
Argentaffin and Melanin Control Slides

Fontana-Masson Staining Procedure

