**UW Medicine - Pathology**

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Modified Rhodanine (Copper) Procedure

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| Adopted Date: 06/22/05  Review Date:  Revision Date: 04/18/13 |

PURPOSE

To identify the method for performing the special stain of Modified Rhodanine for Copper.

PROCEDURE

**Fixation:**

10% buffered neutral formalin.

**Sectioning:**

Paraffin sections cut at 4 microns.

**Solutions:**

Use Type II de-ionized water for all solution preparation.

**Rhodanine Stock Solution**

5-p-Dimethylaminobenzylidene-rhodanine 0.05 gms

Absolute Ethanol 25.0 ml

Prepare fresh and filter prior to use

**Working Solution**

Rhodanine Stock solution 5.0 ml

2% sodium acetate 45.0 ml

**Borax solution**

Sodium borate decahydrate 0.5 gms

Distilled water 100 ml

**Procedure:**

Use control slide.

1. Incubate in the rhodanine working solution at 56°C for 3 hours or overnight in a 37°C oven.
2. Rinse in several changes of distilled water for 3 minutes
3. Stain in acidified Lillie-Mayer or other alum hematoxylin for 10 seconds.
4. Briefly rinse in distilled water and place immediately in borax solution for 15 seconds
5. Rinse well in distilled water
6. Dehydrate in 95% and absolute isopropyl alcohol.
7. Clear in xylene and mount.

**Results:**

Copper fine granular black precipitate

REFERENCES

Lindquist RR. Studies on the pathogenesis of hepatolenticular degeneration. II. Cytochemical methods for the localization of copper. Arch Pathol. 1969 Apr;87(4):370–379. [PubMed]

Written By: Director Approval:

(Signature and Date) (Signature and Date)

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Histology Supervisor