
MELANIN BLEACH

PURPOSE: When melanin pigment is present in large amounts, cell detail may be obscured. Also the ability to be bleached, serves as an identifying factor for melanin.

CONTROL: Two identical sections, one is bleached the other is not.

FIXATION: 10% formalin

TECHNIQUE: Cut paraffin sections 4 μ .

EQUIPMENT: Rinse all glassware in DI water, coplin jars

REAGENTS:

Potassium Permanganate:
Potassium permanganate 0.15 gm
0.3% sulfuric acid 50.0 ml

1% Oxalic Acid:
See Retic

CAUTION: Avoid contact and inhalation

Make fresh, discard after use.

H & E set-up

CAUTION: Avoid contact and inhalation

SAFETY/PPE: Wear nitrile gloves, goggles and lab coat, avoid contact and inhalation.

Potassium permanganate: Skin and eye irritant, ingestion will lead to severe gastrointestinal distress. Strong oxidant.

Sulfuric acid: Strong irritant to skin, eyes and respiratory system. Inhalation can produce target organ effects on skin, respiratory, reproductive and fetal systems. Corrosive.

Oxalic acid: can cause severe burns of the eyes, skin or mucous membranes. Toxic by inhalation and ingestion. Target organ effects on kidneys and cardiovascular system, repeated exposure can cause dermatitis. Corrosive.

PROCEDURE:

1. Deparaffinize and hydrate to distilled water.
2. Slide for bleach: potassium permanganate solution, 2-4 hours.
3. Slide for control, leave in distilled water until step 6.
4. 1% Oxalic acid, 1-2 minutes, or until colorless.
5. Wash in tap water.
6. H & E stain both slides simultaneously.
7. Dehydrate, clear, and coverslip.

RESULTS:

If the pigment is melanin it will not be present on the slide that was bleached.

NOTES: Tissue has a tendency to fall off, use coated slides, if using celloiden it must be applied after step 2.

REFERENCES:

- Sheehan D, Hrapchak B, Theory and practice of Histotechnology, 2nd Ed, 1980, pp220-221, Battelle Press, Ohio
- Luna L, Manual of Histologic Staining Methods from the AFIP, 3rd Ed, 1968,pp 42, McGraw-Hill, NY
- Crookham,J, Dapson,R, Hazardous Chemicals in the Histopathology Laboratory, 2nd ED, 1991, Anatech

Prepared: _____ By: _____

Approved: _____ By: _____

PROCEDURE CARD
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