Removal of Melanin Pigment from Tissue Sections

Purpose/Policy Statement:
For diagnostic purposes, to stain tissue without the interference of pigment or to ascertain whether pigment in tissue sections is melanin.

Definitions:
• n/a

STEPS / KEY POINTS

PROCEDURE:
1. Deparaffinize and hydrate sections to tap H2O.
2. Treat with 0.25% Potassium Permanganate for at least 1 hr.
3. Thorough tap H2O wash.
4. Bleach in 5% Oxalic Acid for 5 min.
5. Thorough tap H2O wash for 10 min.
6. DH2O rinse.
7. Stain as desired. (H&E counterstain program #7)

CALCULATIONS: N/A
CALIBRATION: N/A

QUALITY CONTROL: The known patient H&E section demonstrating pigment will be used to compare with a recut of the same block that has been stained to remove melanin pigment.

PROFICIENCY TESTING: College of American Pathologists HistoQIP.

RESULTS:
Tissue sections free of pigment validate that the observed pigment on the original H&E slide is melanin.

PROCEDURE NOTES: Treatment time in Potassium Permanganate will vary (1-4 hrs), depending on pigment concentration in tissue section.

LIMITATIONS OF PROCEDURE: N/A
Equipment/Supplies (If Applicable):

SPECIMEN: Paraffin sections of 4-micron thickness are collected from a 42-46°C flotation bath and mounted on 25 x 75 mm positively (+) charged microslides.

MATERIALS, REAGENTS: All solutions will have a 1 year expiration date. Dispose down the sink.

<table>
<thead>
<tr>
<th>Stock</th>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25% Potassium Permanganate</td>
<td>38 ml</td>
<td>( \text{DH}_2\text{O} )</td>
</tr>
<tr>
<td>STOCK 5% Potassium Permanganate</td>
<td>2 ml</td>
<td>( \text{DH}_2\text{O} )</td>
</tr>
<tr>
<td>5% Oxalic Acid</td>
<td>100 ml</td>
<td>( \text{DH}_2\text{O} )</td>
</tr>
<tr>
<td>Oxalic Acid</td>
<td>5 gm</td>
<td>( \text{DH}_2\text{O} )</td>
</tr>
</tbody>
</table>

**CAUTION:** IRRITANT

Wear personal protective equipment

**CAUTION:** STRONG OXIDIZER, IRRITANT

Wear personal protective equipment

Form Name & Number or Attachment Name (If Applicable):

Author Position:
Lead histologist

Review/Revision Authority (Position Not Individual Name):
Lead histologist

Expert Consultant Position/s (Not Individual Name/s):

References (Required for Clinical Documents):


SUPPLEMENTAL MATERIALS: NONE.

Is there a Regulatory Requirement? Yes [ ] No [x]
If yes, insert requirement information here:

Review History (No Changes):

Revision History (Note changes in area under header):

Computer Search Words:

Policy, Procedure or Protocol Cross Reference Information: