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Part 1401 Revised November 2019

# Sudan Black B Stain, Propylene Glycol - Technical Memo

SOLUTIONS:
Sudan Black B Stain, Propylene Glycol

Additionally Needed:
Formalin 10%, Phosphate Buffered
Propylene Glycol 100%, ACS
Propylene Glycol 85%, Aqueous
Nuclear Fast Red Stain, Kernechtrot
Mount-Quick Aqueous Mounting Medium
Part 6271A

250 ml
Part 1401A
Part 1401B

Part 1401A
Part 1401B

For storage requirements and expiration date refer to individual bottle labels.

#### **APPLICATION:**

Newcomer Supply Sudan Black B Stain, Propylene Glycol procedure is used for identification of fat/lipid in frozen sections. Sudan black B is a lipid soluble solvent dye that readily stains neutral fats and phospholipids.

Sudan dyes are a group of fat/lipid soluble solvent dyes, also known as lysochromes. These solvent dyes readily stain fat/lipid due to the fact that the dyes are more soluble in lipid than in the solvents from which they are applied.

#### METHOD:

Fixation: Fresh tissue or formalin fixed unprocessed tissue

a. See Procedure Note #1.

**Technique:** Frozen sections cut at 8-10 microns on adhesive slides **Solutions:** All solutions are manufactured by Newcomer Supply, Inc.

All Newcomer Supply stain procedures are designed to be used with Coplin jars filled to 40 ml following the provided staining procedure.

### **STAINING PROCEDURE:**

- Fix frozen section slides in Formalin 10%, Phosphate Buffered (1090) for 1 minute.
  - a. See Procedure Note #2.
- 2. Rinse sections carefully in two changes of distilled water.
- Blot off excess water and dehydrate slides in Propylene Glycol 100%, ACS (13391) for 10-15 minutes.
- Place directly into Sudan Black B Stain, Propylene Glycol for 30 minutes to 1 hour. Agitate occasionally or place Coplin jar on rotator/shaker with continuous gentle agitation.
  - a. See Procedure Note #3.
- Differentiate in Propylene Glycol 85%, Aqueous (133912) for 3 minutes with agitation.
- 6. Rinse gently in distilled water.
- Counterstain in Nuclear Fast Red Stain, Kernechtrot (1255) for 5 minutes.
  - a. Shake solution well before use; do not filter.
- 8. Wash gently in several changes of tap water.
  - a. See Procedure Note #4.
- Blot excess water from slide; coverslip with Mount-Quick Aqueous (6271A) Mounting Medium.
  - a. See Procedure Note #5.

## **RESULTS:**

Fat Blue-black Nuclei Red

#### **PROCEDURE NOTES:**

- 1. To freeze formalin fixed unprocessed tissue:
  - Place specimen in tissue cassette, wash in running tap water for 5 minutes.
  - Remove tissue from cassette; blot well, removing all excess water from tissue.
  - c. Freeze tissue according to laboratory protocol.
- Frozen formalin fixed tissue does not require additional formalin fixation.
- To decrease staining time; preheat Sudan Black B Stain, Propylene Glycol in a 60°C oven; stain for 3-10 minutes.
- Wash well after Nuclear Fast Red Stain, Kernechtrot to avoid cloudiness in coverslipped sections.
- Use minimal pressure when applying coverslip or fat/lipid staining may be disturbed. To remove trapped air bubbles or to recoverslip;
  - Soak slide(s) in warm water until coverslip is easily removed.
  - b. Blot excess water from slide.
  - c. Remount with new coverslip and Mount-Quick Aqueous Mounting Medium.

### **REFERENCES:**

- Bancroft, John D., and Marilyn Gamble. Theory and Practice of Histological Techniques. 6th ed. Oxford: Churchill Livingstone Elsevier, 2008. 192-193.
- Carson, Freida L., and Christa Hladik. Histotechnology: A Self-Instructional Text. 3rd ed. Chicago, Ill.: American Society of Clinical Pathologists, 2009. 185-186.
- Luna, Lee G. Histopathologic Methods and Color Atlas of Special Stains and Tissue Artifacts. Gaitheresburg, MD: American Histolabs, 1992. 464-465.
- Sheehan, Dezna C., and Barbara B. Hrapchak. Theory and Practice of Histotechnology. 2nd ed. St. Louis: Mosby, 1980. 204-205.
- Modifications developed by Newcomer Supply Laboratory.

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