Diagnostic BioSystems

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# Oil Red O Stain Kit (For Fat)

Catalog Number: KT025

**This data sheet is applicable to all sizes (volume) of product. Actual volume is indicated on vial.

Document #: DS-3018-A
Effective Date: 02/015/15

**Intended Use**
For In Vitro Diagnostic Use

**Summary and Explanation**
Oil Red O Stain Kit (For Fat) is intended for use in the histological visualization of fat cells and neutral fat. This kit may be used **ONLY** on frozen tissue sections, fresh smears, or touch preps.

Fat Cells: Red
Neutral Fat: Red
Nuclei: Blue

**Recommended Positive Control**
1. Any frozen section containing fat.

**Reagents Provided**

| Kit Contents | Volume | Storage |
|---|---|---|
| Propylene Glycol | 500 mL | 15-30°C |
| Oil Red O Solution | 125 mL | 15-30°C |
| Hematoxylin, Mayer's (Lillie's Mod.) | 125 mL | 15-30°C |

**Storage and Handling**
Do not use product after the expiration date printed on vial. If reagents are stored under conditions other than those specified here, they must be verified by the user. Diluted reagents should be used promptly.

**Staining Procedure**
1. Prepare fresh or frozen tissue section as usual.
2. Place slide in Propylene Glycol for 2 minutes.
3. Incubate slide in Oil Red O Solution for 6 minutes.
   Note: Prepare mixture of 85% Propylene Glycol in distilled water.
4. Differentiate tissue section in 85% Propylene Glycol for 1 minute.
5. Rinse slide in 2 changes of distilled water.
6. Incubate slide in Hematoxylin, Mayer's (Lillie's Modification) for 1-2 minutes.
7. Rinse slide thoroughly in tap water.
8. Rinse slide in 2 changes of distilled water.
9. Coverslip using an aqueous mounting medium.

**Limitations of the Procedure**
1. Histological staining is a multiple step diagnostic process that requires specialized training in the selection of the appropriate reagents, tissue selections, fixation, processing, preparation of the slide, and interpretation of the staining results.
2. Tissue staining is dependent on the handling and processing of the tissue prior to staining.
3. Improper fixation, freezing, thawing, washing, drying, heating, sectioning, or contamination with other tissues or fluids may produce artifacts or false negative results.
4. The clinical interpretation of any positive staining, or its absence, must be evaluated within the context of clinical history, morphology and other histopathological criteria. It is the responsibility of a qualified pathologist to be familiar with the special stain and methods used to produce the slide.
5. Staining must be performed in a certified licensed laboratory under the supervision of a pathologist who is responsible for reviewing the stained slides and assuring the adequacy of positive and negative controls.

**Precautions**
1. Consult local and/or state authorities with regard to recommended method of disposal.
2. Materials of human or animal origin should be handled as biohazardous materials and disposed of with proper precautions.
3. Avoid microbial contamination of reagents. Contamination could produce erroneous results.
4. This reagent may cause irritation. Avoid contact with eyes and mucous membranes.
5. If reagent contacts these areas, rinse with copious amounts of water.
6. Do not ingest or inhale any reagents.

**Troubleshooting**
If unexpected staining is observed which cannot be explained by variations in laboratory procedures and a problem is suspected, contact Diagnostic BioSystems Technical Support at (925) 484-3350, extension 2 or techsupport@dbiosys.com.

**References**
I. Sheehan, DC. Hrapchak, BB. Theory and Practice of Histotechnology; 1980, page 225.

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