



## Instructions For Use ORK-2-IFU

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P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - [www.scytek.com](http://www.scytek.com)

# Oil Red O Stain Kit (For Fat)

**Description:** 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 as xylenes and alcohols will dissolve fat deposits. Staining may be done using a microwave or at room temperature.

Fat Cells: Red  
Neutral Fat: Red  
Nuclei: Blue

**Uses/Limitations:** Not to be taken internally.  
For In-Vitro Diagnostic use only.  
Histological applications.  
Do not use past expiration date.  
Use caution when handling reagents.  
Non-Sterile

**Control Tissue:** Any frozen section containing fat.

### Availability/Contents:

<u>Item #</u>	<u>Kit Contents</u>	<u>Volume</u>	<u>Storage</u>
PRG060	Propylene Glycol	60 ml x 2	18-25°C
ORG030	Oil Red O Solution	30 ml	18-25°C
HMM030	Hematoxylin, Mayer's (Lillie's Mod.)	30 ml	18-25°C
N/A	Graduated Mixing Vial		

**Precautions:** Keep away from open flame.  
Avoid contact with skin and eyes.  
Harmful if swallowed.  
Follow all Federal, State, and local regulations regarding disposal.  
Use in chemical fume hood whenever possible.

### Procedure (Microwave):

**NOTE: Heat Oil Red O Solution to 60°C prior to beginning.**

1. Prepare fresh or frozen tissue section as usual.
2. Apply 5-8 drops of Propylene Glycol and incubate for 5 minutes at room temperature.
3. Fill a coplin jar approximately 80% full with DI water.
4. Place coplin jar in microwave and heat until hot but not boiling.
5. Blot excess Propylene Glycol from slide.
6. Carefully place slide across the top of the coplin jar and apply 5-8 drops of Oil Red O Solution and heat in microwave for 10 seconds. Leave jar with slide in the microwave during the incubation period to better maintain temperature.
7. Incubate slide in heated Oil Red O Solution for 6-10 minutes.

**Note: Prepare mixture of 85% Propylene Glycol in distilled water in graduated mixing vial.**

Storage: 18° C



25° C



ScyTek Laboratories, Inc.  
205 South 600 West  
Logan, UT 84321  
U.S.A.



EC REP EmergoEurope (31)(0) 70 345-8570  
Molsnstraat 15  
2513 BH Hague, The Netherlands

8. Differentiate tissue section in 85% Propylene Glycol for 1 minute.
9. Rinse slide in 2 changes of distilled water.
10. Stain tissue section with 5-8 drops of Hematoxylin, Mayer's (Lillie's Modification) for 1-2 minutes.
11. Rinse slide thoroughly in tap water.
12. Rinse slide in 2 changes of distilled water.
13. Coverslip using an aqueous mounting medium (cat# AML060).

**Procedure (Room Temperature):**

1. Prepare fresh or frozen tissue section as usual.
2. Apply 5-8 drops of Propylene Glycol and incubate for 5 minutes at room temperature.
3. Fill a coplin jar approximately 80% full with DI water.
4. Place coplin jar in microwave and heat until hot but not boiling.
5. Blot excess Propylene Glycol from slide.
6. Incubate slide in 6-10 drops of Oil Red O Solution overnight at room temperature in a humidity chamber.

**Note: Prepare mixture of 85% Propylene Glycol in distilled water in graduated mixing vial.**

7. Differentiate tissue section in 85% Propylene Glycol for 1 minute.
8. Rinse slide in 2 changes of distilled water.
9. Stain tissue section with 5-8 drops of Hematoxylin, Mayer's (Lillie's Modification) for 1-2 minutes.
10. Rinse slide thoroughly in tap water.
11. Rinse slide in 2 changes of distilled water.
12. Coverslip using an aqueous mounting medium (cat# AML060).

**References:**

1. Hopkins, P.M. et al. Oil red O stain of alveolar macrophages is an effective screening test for gastroesophageal reflux disease in lung transplant recipients. The Journal of Heart and Lung Transplantation. 2010 August; 29(8): pages 859-864.
2. Clark, G., et al. Staining Procedures; 4<sup>th</sup> Edition, 1981.
3. Sheehan, DC., Hrapchak, BB. Theory and Practice of Histotechnology; 1980, page 225.

Storage: 18° C



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