Product datasheet

**Oil Red O Stain Kit (Lipid Stain) ab150678**

### Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Oil Red O Stain Kit (Lipid Stain)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product overview</strong></td>
<td>Oil Red O (Lipid Stain) kit 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.</td>
</tr>
</tbody>
</table>

If you prefer to prepare your own Oil Red O solution, we recommend our solid **Oil Red O stain ab146295**.

Oil Red O staining protocol summary:
- prepare fresh or frozen tissue sections
- incubate slide in propylene glycol for 2 min
- incubate slide in oil red o solution for 6 min
- differentiate section in 85% propylene glycol for 1 min
- rinse slide twice in water
- incubate in hematoxylin for 1-2 min
- rinse slide three times in water
- coverslip with an aqueous mounting medium

### Other products for staining tissue sections

Find more kits and reagents in the **special stains guide**, or products for antigen retrieval, blocking, signal amplification, visualization, counterstaining, and mounting in the **IHC kits and reagents guide**.

### Notes

Oil Red O is a fat-soluble dye that stains neutral triglycerides and lipids. It cannot be used with formaldehyde-fixed paraffin embedded sections as the alcohols used remove most lipids.

**Staining Interpretation**

<table>
<thead>
<tr>
<th>Fat Cells</th>
<th>Neutral Fat</th>
<th>Nuclei</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Red</td>
<td>Blue</td>
</tr>
</tbody>
</table>

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

### Properties

| Storage instructions | Store at room temperature. Please refer to protocols. |
Oil Red O Staining Kit (Lipid Stain) staining frozen human adipose.

Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre.

During adipocyte differentiation, cells accumulate lipid. Oil Red O staining kit (ab150678) was used to visualize lipid in 3T3-L1 cells (left) and adipocyte-like cells (right). As expected, lipid accumulates in 3T3-L1 cells after differentiation into adipocyte-like cells.

### Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematoxylin (Modified Mayer's Solution)</td>
<td></td>
<td>1 x 125ml</td>
</tr>
<tr>
<td>Oil Red O Solution</td>
<td></td>
<td>1 x 125ml</td>
</tr>
<tr>
<td>Propylene Glycol</td>
<td></td>
<td>1 x 500ml</td>
</tr>
</tbody>
</table>

### Images

- ab150678 Oil Red O Stain Kit (Lipid Stain) staining frozen human adipose.
- ab150678 (Oil Red O stain) staining lipid deposits (red) in frozen normal human skin. The dermis is unstained, whereas the hypodermis is stained, demonstrating dye specificity. Hematoxylin (blue) is used as a counterstain.
  *Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre.
- Oil Red O staining of 3T3-L1 and adipocyte-like cells
Staining of Frozen Breast Tissue using ab150678 - Oil Red O Stain Kit.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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