

CLIN-TECH

LIMITED

OIL RED O STAIN

IVD

Catalogue number
64233X



INTENDED USE

This protocol is for lipid or fat staining on frozen sections.
It may not be suitable for paraffin embedded tissue sections.

KIT PRESENTATION

Reagents

☐ **Oil Red O Stock**

(Saturated in isopropyl alcohol)

Also required but not supplied with this reagent

☐ **1% Dextrin Solution**

☐ **60% Propan-2-ol**

☐ **Mayer's Haematoxylin**

PROTOCOL

Preparation

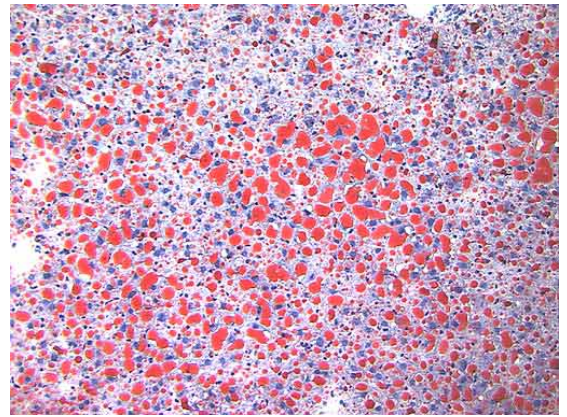
- 1) Mix 3 parts Oil Red O stock solution with 2 parts 1% dextrin solution 1 hr prior to use.
- 2) Air dry slides for 30 minutes, and then rinse in 60% Propan-2-ol.
- 3) Filter Oil Red O working solution immediately prior to use.

Test Method

- 4) Stain in Oil Red O working solution for 10-20 minutes at room temperature
- 5) Differentiate in 60% Propan-2-ol solution.
- 6) Rinse in distilled water.
- 7) Stain in Mayer's haematoxylin for 1-2 minutes.
- 8) **Wash thoroughly in running water for 3 minutes.**
- 9) Rinse in 2 changes of distilled water.
- 10) Mount with glycerine jelly or aqueous mounting medium.
- 11) Examine under a microscope.

Results

Lipids	Bright red
Some Phospholipids	Pink
Nuclei / background	Pale blue



Oil Red O stained liver section.
This dye stains fat droplets bright red.

NOTES

Oil Red O is absorbed by hydrophobic unsaturated triglycerides, cholesterol esters and fatty acids. Hydrophilic phospholipids and glycolipids are at best faintly stained.

The Oil Red O Stock solution can be mixed 3 parts with 2 parts distilled water instead of 1% dextrin if required

Mayer's Haematoxylin can be replaced using diluted Lillie's (25%) or Ehrlich's Haematoxylin (20%).

Suitable for frozen sections at 4-8 µm thick

REFERENCES

Theory and Practice of Histological Techniques, 3rd Edition, Bancroft JD, Stevens A, Editors, Churchill Livingstone, New York (NY), 1990, p222

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Histopathologic Technic and Practical Histochemistry Lillie R.D., Fullmer H.M. Ed 4, McGraw-Hill, New York (NY) 1976

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