Servicebio® Oil Red O Stain

Cat No.: G1015-100ML

Product Information

Product Name	Cat.No.	Spec.
Oil Red O Stain	G1015-100ML	100 mL

Description

Oil red O, also known as Sudan red 5B, is a fat soluble azo dye. This dye can specifically stain neutral lipids such as triglycerides in cells or tissues, but it is weak for phospholipids and steroids. The basic principle is that oil red O dissolves in lipids to make lipids red to orange red.

The saturated oil red O stain of this product is the saturated solution of oil red O. It can be used to dye tissue sections or cells after being diluted with distilled water before use. After dyeing, the lipid droplet in the tissues are red to orange red.

Storage and Handling Conditions

Storage and transportation under room temperature and away from light, valid for 12 months

Component

Component	G1015-100ML
Oil Red O Stain	100 mL
Product Manual	

Assay Protocol

Preparation of working solution: Before use, 6 parts of saturated oil red O stain are thoroughly mixed with 4 parts of distilled water, and left to stand overnight at 4 ℃. The next day, filter once with qualitative filter paper, and then filter again at 4 ℃ for 24 hours to obtain the oil red O working solution. In addition, 60% isopropanol is prepared.

I Sample preparation

1. For cells: aspirate the cell culture medium, slowly add PBS (G4202 is recommended) to the edge of the orifice plate to simply clean the cells. Add 4% paraformaldehyde fixative (G1101 is recommended) and fix it at room temperature for 8-10 min, and rinse it twice with PBS.

2. For frozen sections: take out the sections from -20 ℃ and let them stand at room temperature for 5-10 min to recover to normal temperature.

I Dyeing steps

1. For cells

(1) Add a small amount of 60% isopropyl alcohol into the pore plate to cover the cells for 15-20 seconds, and then suck out 60% isopropyl alcohol and dry the water slightly.

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(2) Add oil red O working solution to the orifice plate to cover the cells, and dye them at room temperature in dark for 30 min to remove the dye.
(3) Add 60% isopropanol for rapid differentiation for 3-5 seconds, wash with pure water for 3 times, and each time for 5 minutes.
(4) (Optional) Add hematoxylin dye solution (**G1004 is recommended**) to dye the nucleus, wash with water, turn blue and then wash with water.
(5) PBS was added to cover the cells and observed under microscope. In case of cell climbing, glycerol gelatin film sealant (**G1402 is recommended**) can be used for slide mounting.
2. For frozen sections
(1) Frozen sections recovered to room temperature were gently immersed in oil Red O working solution and stained for 8-10 min (covered to avoid light).
(2) The sections were taken out, stayed for 3 s, and then immersed in two cylinders of 60% isopropanol for differentiation for 3-5 s.
(3) Sections were immersed in two cylinders of pure water for 10 s each time.
(4) (Optional) The sections were immersed in hematoxylin dye solution to stain the nuclei, washed with water, then returned to blue and washed again. After slightly drying, glycerin gelatin was added to mount the slide.

Note:

1. If it is a frozen section of fresh tissue, the section should be fixed before staining.
2. During the whole operation, pay attention to the gentle action to avoid fat loss or displacement.
3. Samples stained with oil Red O cannot be stored for a long time, and should be observed and photographed as soon as possible.
4. When using glycerin gelatin to mount slides, attention should be paid to avoid bubbles as far as possible. If bubbles are not allowed to press the glass slide or forcibly tear the cover glass after mounting the slides, it will cause fat displacement. The slide can be immersed in warm water at 50-60 ℃ to allow the cover slide to fall off and then re-mount the slide.
5. This product can be used to stain approximately 80 sections. Replace with new stain when tissue or cell staining is significantly light or abnormal in color.
6. For your safety and health, please wear a lab coat and disposable gloves during operation.

For Research Use Only!

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