# 大体油红染色实验报告

## 一、实验器材及试剂

1、 实验器材

| 名称 | 厂家 | 型号 |
|---|---|---|
| 解剖镊 | | |
| 解剖剪 | | |
| 照相机 | 佳能 | D70 |

2、 主要实验试剂

| 试剂名称 | 厂家 | 货号 |
|---|---|---|
| 固定液 | Wanwu | G1101 |
| 油红染液 | Wanwu | G1016 |
| 异丙醇 | 国药集团化学试剂有限公司 | 80109218 |

## 二、实验步骤

**1、取材固定：**将目的区域的血管分离取下，用镊子尽可能地去除血管周围的脂肪组织，将血管置于固定液固定 24h 以上，将组织从固定液中取出，PBS 浸洗两次；

**2、剖开：**取材时摘除血管外周的脂肪并用解剖剪沿血管壁小心地将血管纵向剖开。

**3、染色：**将已剪好的血管用自来水稍洗 5s，血管先浸入 60%的异丙醇 3S 再浸入油红 o 染液中 37° 避光染色 60min 后取出，用镊子取出血管浸入 60%异丙醇分化，分化时间以 1min 开始分化至管腔内脂肪斑块呈橘红色或鲜红色，其它部位近无色，然后用蒸馏水洗终止分化。

**4、拍照：**将血管取出，滤纸吸除多余的水分取一张载玻片放置在带有刻度尺的黑色或者白色背景板上，将血管在载玻片上铺开，选择光线良好的地方，调整好相机的焦距和曝光度，进行拍照，拍照时背景板上的刻度尺也要拍进去。

## 三、结果判读：

脂滴呈橘红色或鲜红色，其它部位近无色。

## 四、注意事项：

1、染色结果不能长期保存，应尽快观察及照相，保存实验结果。

# Gross Oil Red Staining Experiment Report

## I. Experimental equipment and reagents

1. Experimental equipment

| Equipment name | Manufacturer | Model No. |
|---|---|---|
| Dissecting forceps | | |
| Dissecting scissors | | |
| Camera | Canon | D70 |

2. Main experimental reagents

| Reagent name | Manufacturer | Item No. |
|---|---|---|
| Fixative | Wanwu | G1101 |
| Oil red staining solution | Wanwu | G1016 |
| Isopropyl alcohol | Sinopharm Chemical Reagent Co., Ltd. | 80109218 |

## II. Experimental procedure

**1.Fixation:** Take the blood vessels in target area, remove the adipose tissue around the blood vessels as much as possible with forceps, put the blood vessels in fixative to fix for more than 24h, take out the blood vessels tissues from the fixative, and wash twice with PBS.

**2. Dissection:** Remove the fat on the periphery of blood vessel when taking materials and carefully dissect the blood vessel longitudinally along the vessel wall with dissecting scissors.

**3. Staining:** Wash the well cut blood vessels with tap water for 5s slightly. Immerse the blood vessels in 60% isopropyl alcohol for 3s, and then immerse in the Oil red O staining solution. Stain in the staining solution at 37° in the dark for 60 minutes, then take out the blood vessels with forceps and immerse in 60% isopropyl alcohol for differentiation, the differentiation time began to differentiate at 1min until the fatty plaque in the vessels lumen is orange-red or bright red, and the other parts are nearly colorless, then wash with distilled water to terminate the differentiation.

**4. Photographing:** Take out the blood vessels, absorb excess water with filter paper, take a microscope slide and place it on a black or white background plate with scale, spread the blood vessel on the slide, select a place with good light, adjust the focus and exposure of the camera well, then take photos. The scale on the background plate should also be taken into the photos.

**III. Interpretation of results:**

The lipid droplets are orange-red or bright red, and the other parts are nearly colorless.

**IV. Precautions:**

1. The staining results cannot be stored for a long time. It should be observed and take photos as soon as possible to save the experimental results.