V02

改良油红 O 染色试剂盒

货号：G1261
规格：2×50mL/2×100mL
保存：2-8℃，避光保存，有效期为 6 个月。

产品组成：

名称		2×50mL	2×100mL	保存
试剂(A)：改良油红 O 染色液	试剂(A1)：油红 O 染色 A 液	30mL	60mL	2-8℃, 避光
	试剂(A2)：油红 O 染色 B 液	20mL	40mL	室温
按 A1:A2=3:2 比例混合静置 10min 后过滤， 即为改良油红 O 染色液，不宜提前配制。				
试剂(B): Mayer 苏木素染色液		50mL	100mL	2-8℃,避光

产品介绍：

脂质(Lipid)是中性脂肪、类脂及其衍生物的总称，不溶于水，易溶于有机溶剂(例如乙醇、乙醚等)。中性脂肪染色常采用苏丹染料，最近发现偶氮染料油红 O 更适合脂肪的染色。油红 O 是很强的脂溶剂和染脂剂，较易与甘油三脂结合呈小脂滴状，与磷脂结合力稍差。其染色原理是染料在脂质的溶解度较在原溶剂中的溶解度更大，所以在染色时染料就从有机溶剂转移入脂质而使脂肪染色。

改良油红 O 染色试剂盒主要用于显示组织器官的脂肪变性和类脂质的异常沉着，常发生于肝、肾、心等实质脏器的脂肪变性，细胞内出现多数中性脂肪滴；鉴别和诊断脂肪组织中所发生的肿瘤及其性质。标本不采用含有乙醇的固定液(如需要固定可采用 10%的福尔马林)、也不采用石蜡切片，需用冰冻切片或碳蜡切片。脂肪的阳性染色结果呈橘黄至红色，具体颜色因脂质浓度而定。

自备材料：

60%的异丙醇 、蒸馏水、稀碳酸锂溶液、甘油明胶

操作步骤：*（仅供参考）*

1. 冰冻切片建议厚度 10μm，不固定或 10%福尔马林固定 30min，蒸馏水浸洗 2 次每次 3min。
2. 切片浸入 60%的异丙醇内浸洗 20-30s。
3. 切片浸入改良油红 O 染色液中(加盖)，密闭染色 10-15min。
4. 分色：浸入 60%的异丙醇内稍洗 5-10s 以便去除染液，蒸馏水清洗 1min。
5. 滴加 Mayer 苏木素染色液复染核 1-2min。
6. 自来水漂洗 10min 或稀碳酸锂溶液漂洗 3min 返蓝。
7. 入蒸馏水中稍微清洗，用滤纸吸干周围水分。
8. 甘油明胶或阿拉伯糖胶封固。

染色结果：

中性脂肪	橙红色或橘红色
细胞核	蓝色

注意事项：

1. 改良油红 O 染色液为过饱和溶液，为保证染色效力，不宜提前配制，临用前需过滤。
2. 如果 60%的异丙醇不易获得，亦可采用 70%的乙醇替代。
3. 脂质易溶于有机溶剂，不建议制备石蜡或塑封切片染色，通常建议制备冰冻切片或碳蜡切片。
4. 脂肪细胞通常大于正常细胞，冰冻切片不可太薄（10-20μm），过薄的切片常会使脂质丢失。
5. 试剂 A2 在低温储存和运输时会变浑浊属于正常现象，沸水浴 5min 即可恢复澄清正常使用。
6. Mayer 苏木素染色液复染时间不宜过长，染色结果不能长期保存，应尽快观察及照相。
7. 甘油明胶封固的样本保存时间不长。如需长期保存可在盖玻片与载玻片交界的边缘用中性树胶封闭。
8. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

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Modified Oil Red O Stain Kit

Cat:G1261
Size:2×50mL/2×100mL
Storage:2-8℃, avoid light, valid for 6 months.

Kit Components

Reagent		2×50mL	2×100mL	Storage
Reagent(A):Modified Oil Red O Stain Solution	A1: Oil Red O Stain A	30mL	60mL	2-8℃,avoid light
	A2: Oil Red O Stain B	20mL	40mL	RT
Mix A1 and A2 with the radio of 3:2 and place for 10 min to form Modified Oil Red O Stain Solution. Configure before use.				
Reagent(B):Mayer's Hematoxylin Solution		50mL	100mL	2-8℃,avoid light

Introduction

Neutral fat stains often use Sudan II, Sudan III, Sudan IV, Sudan black B, oil red O and so on. Sudan stain is often used in traditional methods. Recently, azo dye oil red O is more suitable for dyeing fat. Oil red O is a strong lipid solvent and dye. It is easy to bind to triglycerides in droplet shape, but has a slightly poor binding to phospholipids.

Modified Oil Red O Stain Kit is mainly used to show fatty degeneration of tissues and organs and abnormal lipid-like sedation. It often occurs in fatty degeneration of liver, kidney, heart and other parenchymal organs that most of the neutral fat droplets appear in cells. It can identify and diagnose tumors and their properties in adipose tissue. The positive staining results of fat were orange to red, but the specific color depended on the concentration of lipid.

Self Provided Materials

60% isopropanol, distilled water, bluing solution, glycerol gelatin

Protocol(*for reference only*)

1. Cut frozen sections 10 um thick,unfix or wash by water after fix in 10% formalin for 10min.Rinse sections slightly with distilled water.
2. Soak sections in 60% isopropanol for 20-30 s.
3. Stain section in Modified Oil Red O Stain Solution (capped) for 10-15 min.
4. Colour separation: Wash slightly for 5-10s in 60% isopropanol to remove the dye solution. Rinse sections with distilled water for 1 min.
5. Re-dyeing by Mayer's Hematoxylin Solution for 1-2 min.
6. Rinse by tap water for 10 min or blue with bluing solution for 3min.
7. Rinse sections slightly with distilled water. Absorb the surrounding water with filter paper.
8. Glycerol gelatin or arabinose glue sealing is solid.

Result

Neutral Fat	Orange or Red
Nucleus	Blue

Note

1. The Modified Oil Red O Stain Solution is not stable enough and easy to precipitate, so it is not suitable to prepare it in advance.Filter before use.
2. If 60% isopropanol is not available, 70% ethanol can also be used.
3. Lipids are easily soluble in organic solvents, and it is not recommended to prepare paraffin or plastic coated sections for staining. It is usually recommended to prepare frozen sections or carbon wax sections.
4. Adipose cells are usually larger than normal cells, and frozen sections should not be too thin (10-20μm) Thin slices often cause lipid loss.
5. It is normal for reagent A2 to become turbid during low-temperature storage and transportation, and it can be restored to clarity and normal use by boiling water for 5 min.
6. The re-staining time of Mayer's hematoxylin staining solution should not be too long, and the staining results should not be stored for a long time. Observation and photography should be done as soon as possible.
7. If long-term preservation is required, the edge between the cover glass and the slide can be sealed with neutral resin.
8. For your safety and health, please wear laboratory clothes and disposable gloves when operating.