V02

# Pollak 三色染色试剂盒

**货号：**G3500
**规格：**4×50mL/4×100mL
**保存：**室温，避光保存，有效期 6 个月。

## 产品组成：

| 名称 | | 4×50mL | 4×100mL | 保存 |
|---|---|---|---|---|
| 试剂(A): Weigert 铁苏木素 | A1: Weigert 染液 A | 25mL | 50mL | 室温，避光 |
| | A2: Weigert 染液 B | 25mL | 50mL | 室温，避光 |
| 临用前，取 A1、A2 等量混合即为 Weigert 铁苏木素染色液，不宜提前配制。 | | | | |
| 试剂(B): 酸性分化液 | | 50mL | 100mL | 室温 |
| 试剂(C): Pollak 染色液 | | 50mL | 100mL | 室温，避光 |
| 试剂(D): Pollak 分化液 | | 50mL | 100mL | 室温 |

## 产品介绍：

Masson 三色染色又称马松染色，是结缔组织染色中最经典的一种方法，是胶原纤维染色权威而经典的技术方法。所谓三色染色通常是指染胞核和能选择性的显示胶原纤维和肌纤维。该法染色原理与阴离子染料分子的大小和组织的渗透有关：分子的大小由分子量来体现，小分子量易穿透结构致密、渗透性低的组织；而大分子量则只能进入结构疏松的、渗透性高的组织。Pollak 三色染色是在 Masson 三色染色法基础上改良而来的结缔组织多色染色法，采用媒染剂和促染剂同时染色，可使结缔组织中的多种成分着色。

## 操作步骤：(*仅供参考*)

1. 切片常规脱蜡至水。
2. 滴加配制好的 Weigert 铁苏木素染色 15-20min。
3. 酸性分化液分化 5-10s。
4. 自来水洗 10min 返蓝，蒸馏水洗 2～4 次。
5. 滴加 Pollak 染色液染色 3-7min，蒸馏水快速冲洗。
6. 滴加 0.2%冰乙酸分化（镜下控制）大约 10-20s，蒸馏水快速冲洗。
7. 梯度乙醇快速脱水每级 3-5s，二甲苯透明 2 次，每次 1min，中性树胶封固。

## 染色结果：

| | |
|---|---|
| 胶原纤维、黏液、软骨、神经纤维 | 蓝色 |
| 肌肉、弹力纤维 | 红色 |
| 纤维素 | 紫红色 |
| 红细胞 | 橘红色 |
| 细胞核 | 蓝黑色 |

## 注意事项：

1. 切片脱蜡应尽量干净。Weigert 铁苏木素染液即配即用，建议 6 小时内使用完毕。
2. 组织固定起着非常重要的作用，使用不同的固定液可延长或缩短染色时间。
3. Pollak 染色液的染色时间应严格控制：染色时间过短，导致红色过深；染色时间过长，导致绿色或蓝色过深。分化时间过长会使黏液，胶原纤维，纤维素的颜色过浅，不易观察。
4. Pollak 分化液可使色彩更清晰鲜艳，如用量大可购置 G2940-弱酸溶液予以替代。
5. 为了您的安全和健康，请穿实验服并戴一次性手套操作。



Tel: 400-968-6088 https://www.solarbio.com E-mail: sales-china@solarbio.com
Address: No. 85, Liandong U Valley, Middle Zone, 101102, Tongzhou Dist, Beijing, China

# Pollak's Trichrome Stain Kit

**Cat:** G3500
**Size:** 4×50mL/4×100mL
**Storage:** RT, avoid light, valid for 6 months.

## Kit Components

| Reagent | | 4×50mL | 4×100mL | Storage |
|---|---|---|---|---|
| Reagent(A) : Weigert Iron Hematoxylin Solution | A1: Weigert Solution A | 25mL | 50mL | RT, avoid light |
| | A2: Weigert Solution B | 25mL | 50mL | RT, avoid light |
| Before use, mix A1 with A2 in equal amount to form Weigert Iron Hematoxylin Solution. It is not suitable to prepare in advance. | | | | |
| Reagent(B): Acidic Differentiation Solution | | 50mL | 100mL | RT |
| Reagent(C): Pollak Staining Solution | | 50mL | 100mL | RT, avoid light |
| Reagent(D): Pollak Differentiation Solution | | 50mL | 100mL | RT |

## Introduction

Masson Trichrome Staining, also known as Masson staining, is the most classical method in connective tissue staining. It is an authoritative and classic technical method of collagen fiber staining. Masson Trichrome Staining usually refers to the staining of nucleus and selective display of collagen and muscle fibers. The dyeing principle of this method is related to the size of anionic dye molecules and the permeability of tissues: the size of molecules is reflected by molecular weight, and small molecular weight is easy to penetrate the tissues with dense structure and low permeability; while large molecular weight can only enter the tissues with loose structure and high permeability. Pollak Trichrome Staining is a polychromatic staining method of connective tissue improved on Masson Trichrome Staining method. It can stain various components of connective tissue by using mordant and promoter at the same time.

## Protocol(*for reference only*)

1. For paraffin section, conventionally dewax to distilled water.
2. Stain with prepared Weigert Iron Hematoxylin Solution for 15-20 mins.
3. Differentiate in Acidic Differentiation Solution for 5-10 s.
4. Blue in tap water for 10mins, and wash with distilled water for 2-4 times.
5. Drop with Pollak Staining Solution for 3-7mins. Quickly wash with distilled water.
6. Differentiate by 0.2% glacial acetic acid(control under the microscope) about 10-20s. Quickly wash with distilled water.
7. Quickly dehydrate in ethanol and each level for 3-5s.Transparent by xylene for 2 times, 1-2min each.
8. Seal with resinene.

## Result

| | |
|---|---|
| Collagen Fiber, Mucus, Cartilage, Nerve Fiber | Blue |
| Muscle, Elastic Fiber | Red |
| Cellulose | Purplish Red |
| Red Blood Cell | Orange Red |
| Nucleus | Bluish Black |

## Note

1. Section dewaxing should be as clean as possible. Weigert Iron Hematoxylin Solution is ready to use, and generally loses its dyeing power in 6 h.
2. Tissue fixation plays an important role. For different fixatives, can prolong or shorten the staining time.
3. The dyeing time of Pollak Staining Solution should be strictly controlled: too short dyeing time leads to too deep red; too long dyeing time leads to too deep green or blue. Over differentiation will make the color of mucus, collagen fiber and cellulose too light to observe.
4. Pollak Differentiation Solution can make the color more clear and bright. If the use is large, G2940- Acetic Acid Solution can be prepared to replace it.
5. For your safety and health, please wear experimental clothes and disposable gloves.