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胶原纤维-弹力纤维复合染色试剂盒（EVG-改良 Weigert 法）

货号： G1591
规格： 5×50mL/5×100mL
保存： 2-8℃, 避光保存, 有效期 6 个月。

产品组成：

名称		5×50mL	5×100mL	保存
试剂(A): Weigert 氧化剂	试剂(A1): Weigert 氧化剂 A	25mL	50mL	室温，避光
	试剂(A2): Weigert 氧化剂 B	25mL	50mL	室温
临用前，取 A1、A2 等量混合即为 Weigert 氧化剂，建议 3 小时内使用完毕。				
试剂(B): Weigert 漂白剂		50mL	100mL	室温
试剂(C): Weigert 品红染色液		50mL	100mL	2-8℃，避光
试剂(D): 酸性分化液		50mL	100mL	室温
试剂(E): 改良 VG 染色液		50mL	100mL	室温，避光

产品介绍：

胶原纤维(Collagen Fiber)是结缔组织中分布最广含量最多的一种纤维，弹力纤维（Elastic Fiber）主要分布于人体的动脉壁、肺泡壁、皮肤，新鲜时呈黄色，折光性强。组织常规染色中常需要同时显示两种纤维以研究纤维间相互共存的关系和与其他结构的依存关系，据此在纤维单独染色试剂盒的基础上产生了 EVG 复合染色试剂盒，由常规弹力纤维染色和 VG 胶原染色联合使用。

本试剂盒采用 Weigert 品红和改良 VG 染色液联合染色机制，可在一张切片上对弹力纤维和胶原纤维进行同时染色，且不易褪色。经染色后，弹力纤维着紫黑色，胶原纤维着红色，肌肉着黄色，适用于观察组织内弹力纤维和胶原纤维是否存在异常病变，从而协助诊断。本试剂盒质量上乘，不含苦味酸，操作简单，染色稳定、颜色靓丽清晰。

操作步骤：（*仅供参考*）

1. 新鲜取材，经固定后，常规石蜡包埋，切片 3-8um。
2. 石蜡切片热处理 50min 后二甲苯脱蜡 20min，梯度乙醇脱蜡至蒸馏水，每步骤 5min。
3. 用配制好的 Weigert 氧化剂氧化 3min。蒸馏水洗 1min。*（见注意事项 2）*
4. 用 Weigert 漂白剂漂白 3min，蒸馏水洗 1min。*（见注意事项 2）*
5. 切片入 Weigert 品红染色液，室温加盖浸染 1~3h 或 56℃恒温染色 1h。
6. 用酸性分化液分化至无染液脱下，蒸馏水洗终止分化。
7. 入改良 VG 染色液染色 5-10min，蒸馏水洗去多余染液。
8. 75%、85%、95%、100%乙醇常规脱水，每个 3-5s，二甲苯透明 2 次，每次 1min，中性树胶封片。
9. 光学显微镜镜检观察染色结果。

染色结果：

弹力纤维	棕褐色或紫黑色
胶原纤维	红色
肌纤维、红细胞及背景	黄色

注意事项：

1. 大多数固定液均可用于固定，但不推荐使用含铬盐固定液。切片脱蜡应充分，系列乙醇应经常更换。
2. 若只想显示成熟弹力纤维，可省略氧化漂白步骤，直接进行后续染色。

3. Weigert 品红染色前若不加预热（56℃），染色时间可适当延长。
4. 酸性分化液通常仅需 3-10 秒就能脱去背景着色，目测颜色清晰的情况下须尽快终止分化。
5. 改良 VG 染色液染色稳定，水洗不易褪色，可充分清洗。
6. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

Collagen Fiber And Elastic Fiber Staining Kit (EVG-Modified Weigert Method)

Cat: G1591
Size: 5×50mL/5×100mL
Storage: 2-8℃, avoid light, valid for 6 months.

Kit Components

Reagent		5×50mL	5×100mL	Storage
Reagent(A): Weigert Oxidant	A1: Weigert Oxidant A	25mL	50mL	RT, avoid light
	A2: Weigert Oxidant B	25mL	50mL	RT
Mix A1 with A2 in equal amount to form Weigert Oxidant.It is recommended to use it within 3 hours.				
Reagent(B): Weigert Bleaching Solution		50mL	100mL	RT
Reagent(C): Weigert Fucshin Staining Solution		50mL	100mL	2-8℃, avoid light
Reagent(D): Acid Differentiation		50mL	100mL	RT
Reagent(E): Modified VG Staining Solution		50mL	100mL	RT, avoid light

Introduction

Elastic fibers are mainly distributed in the arterial walls, alveolar walls, and skin of the human body. When fresh, they are yellow and have strong refractive properties. In routine tissue staining, it is often necessary to simultaneously display two types of fibers to study the coexistence relationship between fibers and their dependence on other structures. Based on this, an EVG composite staining kit was developed on the basis of a separate fiber staining kit, which is used in combination with conventional elastic fiber staining and VG collagen staining.

This reagent kit adopts a combined staining mechanism of weigert fuchsin and modified VG staining solution, which can simultaneously stain elastic fibers and collagen fibers on a single slice without fading easily. After staining, the elastic fibers are purple black, the collagen fibers are red, and the muscles are yellow. It is suitable for observing whether there are abnormal lesions in the elastic fibers and collagen fibers in the tissue, thus assisting in diagnosis. This reagent kit has excellent quality, simple operation, stable staining, and beautiful and clear colors.

Protocol(*for reference only*)

1. Take fresh samples, fix and embed with paraffin. Cut the section into 3-8um.
2. After 50min of heat treatment on paraffin slices, dewax by xylene for 20min, then treat with gradient ethanol to distilled water for each step 5min.
3. Treat with Weigert Oxidant for 3min, then wash with distilled water for 1min.*(see note 2)*
4. Treat with Weigert Bleaching Solution for 3min, then fully wash with distilled water for 1min.*(see note 2)*
5. Add into Weigert Fucshin Staining Solution, cover and dip at room temperature for 1-3 hours, or stain at 56 ℃ for 1 hour.
6. Differentiate with Acid Differentiation until no dye is removed.Then wash with distilled water.
7. Dye with Modified VG Staining Solution for 5-10min, and wash off with distilled water.
8. 75%, 85%, 95%, and 100% ethanol were subjected to conventional dehydration for 3-5 seconds each. Xylene was transparent twice for 1min each time, and neutral gum was used for sealing.
9. Microscopic observation of staining results.

Result

Elastic fiber	Brown or Purple Black
Collagen fiber	Red
Muscle fiber, Red blood and Background	Yellow

Note

1. Most fixing solutions are suitable, but fixing solutions containing chromium salts can result in lighter staining and easier dispersion. Slice dewaxing should be as clean as possible, and series of ethanol should be frequently replaced with a new solution.
2. If you only want to display mature elastic fibers, you can skip the oxidation bleaching step and proceed with subsequent dyeing directly.
3. If preheating (56 ℃) is not added before dyeing Weigert Fucshin Staining Solution, the dyeing time can be appropriately extended.
4. The Acid Differentiation usually takes only 3-10 seconds to remove the background color, and the differentiation must be terminated as soon as possible when the color is clear through visual inspection.
5. The Modified VG Staining Solution is stable in dyeing, not easy to fade after washing, and can be thoroughly cleaned.
6. For your safety and health, please wear laboratory clothes and disposable gloves for operation.