改良苏木素伊红(HE)染色试剂盒

货号： G1121
规格： 4×10mL/4×100mL
保存： 常温，避光保存，有效期至少 1 年。

产品组成：

名称	4×10mL	4×100mL	保存
试剂（A）：苏木素染液	10mL	100mL	室温
试剂（B）：分化液	10mL	100mL	室温
试剂（C）：返蓝液	10mL	100mL	室温
试剂（D）：伊红染液	10mL	100mL	室温，避光

注意：环境温度低时，返蓝液可能会有结晶析出，将返蓝液 37℃水浴融化 10min 后，吸取上清即可。

产品介绍：

苏木精-伊红染色法（Hematoxylin-Eosin staining），简称 HE 染色法，是病理学常规制片中最基本的染色方法。苏木精染液为碱性染料，主要使嗜碱性物质如细胞核内的染色质与胞质内的核糖体着紫蓝色；伊红为酸性染料，主要使嗜酸性的细胞质和细胞外基质中的成分着红色。

染色过程需要根据具体实验样本进行优化，着色情况的不同与组织或细胞的种类不同有关，也随其生活周期及病理变化而改变。例如，很多细胞在新生时期胞浆对伊红着色较淡或轻度嗜碱，当其衰老时或发生退行性变化则呈现嗜伊红浓染。胶原纤维在老化和出现透明变性时，伊红着色由浅变深。本产品所包含试剂均为工作液，可直接使用。新型试剂盒相比常规的，伊红和苏木素着色时间更短，颜色对比更鲜亮。

操作步骤：（*仅供参考*）

（一）石蜡组织切片染色

1. 取材组织块，经固定后，常规石蜡包埋，切片。
2. 石蜡切片脱蜡水化：
   ① 二甲苯脱蜡两次，每次 5min。
   ② 无水乙醇处理两次，每次 5 min。
   ③ 95%乙醇、85%乙醇、75%乙醇各处理一次，每级 2min。
   ④ 蒸馏水浸泡 2min。
3. 苏木素染液染色 3-10min(具体时间根据染色结果和实验要求调整)，自来水冲洗 5-10s。
4. 分化液分化 1-5s，自来水冲洗 20-30s，洗掉分化液即可。
5. 返蓝液返蓝 10s-1min，自来水冲洗 20-30s，洗掉返蓝液即可。
6. 伊红染色 30s-2min(具体时间根据染色结果和实验要求调整)，自来水冲洗 1-5s。
7. 脱水，透明，封片：（见注意事项 4）
   ① 75%乙醇、85%乙醇、95%乙醇和 100%乙醇（I）各浸洗 2-3s
   ② 100%乙醇（II）浸洗 1min
   ③ 二甲苯透明两次，每次 1min
   ④ 中性树胶封固，镜下观察。

（二）冰冻切片或细胞染色

1. 冰冻切片恢复室温后直接固定 3-5min，水洗 3-5min。
2. 苏木素染色 1-2min。
3. 后续染色步骤与石蜡切片染色相同。

染色结果：

细胞核	蓝色
细胞质、纤维	红色

注意事项：

1. 切片脱蜡应尽量干净。系列乙醇应经常更换新液。
2. 第一次使用本试剂盒时建议先取 1-2 个样品做预实验。
3. 染色过程推荐浅染，通常只需能够分辨细胞核即可，颜色过深有可能影响细胞质颜色。
4. 分化液的分化时间应该依据切片厚薄、组织的类别和盐酸乙醇分化液的新旧而定，另外分化后自来水冲洗时间应该足够，以便彻底清洗酸。
5. 冷冻切片染色时间尽量要短。
6. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

相关产品：

G1010　姬姆萨染色液（工作液）
G1040　瑞氏染色液
G1100　伊红染色液(HE 染色)
G1140　Cole 苏木素染色液(常规染色)
P1120　10×多聚赖氨酸

Modified Hematoxylin-Eosin (HE) Stain Kit

Cat: G1121
Size: 4×10mL/4×100mL
Storage: RT, avoid light, valid for at least 1 year.

Kit Components

Reagent	4×10mL	4×100mL	Storage
Reagent A: Hematoxylin Solution	10mL	100mL	RT
Reagent B: Differentiation solution	10mL	100mL	RT
Reagent C: Bluing Solution	10mL	100mL	RT
Reagent D: Eosin Solution	10mL	100mL	RT, avoid light

Note:When the ambient temperature is low, the Bluing Solution may crystallize and precipitate. Absorb the supernatant after melting the Bluing Solution at 37 C in water bath for 10 mins.

Introduction

Hematoxylin-Eosin stain,which also named HE stain, is the most basic method of routine section staining in pathology. Hematoxylin is an alkaline dye, which mainly dyes the basophilic substances such as chromatin in nucleus and ribosome in cytoplasm violet-blue. Eosin is an acid dye, which mainly dyes the components of eosinophilic cytoplasm and extracellular matrix red.

The dyeing steps need to be optimized according to the specific experimental samples. Different kinds of tissues or cells make different staining results which also change with their life cycle and pathological changes.The reagents in this kit are working solution, which can be used directly. Compared with the conventional kit, the new method has shorter coloring time and brighter color contrast between eosin and hematoxylin.

Protocol(*for reference only*)

A. For Paraffin Section Staining

1) Fix tissue blocks , embed in paraffin and section.
2) Dewaxing and hydration of paraffin section to water。
3) Stain with Hematoxylin Solution for 3-10mins(Adjust the time according to dyeing results and experimental requirements) and wash by tap water for 5-10s.
4) Differentiate with Differentiation Solution for 1-5s then wash with tap water for 20-30s to remove the Differentiation Solution.
5) Blue with Bluing Solution for 10s-1min then wash with tap water for 20-30s to remove the Bluing Solution.
6) Dye with Eosin Solution for 30s-2min(Adjust the time according to dyeing results and experimental requirements) and wash by tap water for 1-5s.
7) Dehydrate in alcohol (75%, 85%, 95%,100% alcohol（I）), each for 2-3s, and rinse in 100% alcohol（II）for 1 min.
8) Transparent by xylene and seal with resinene.

B. For Frozen Section and Cell Staining

1) Fix for 3-5mins after restoring the frozen section to room temperature then wash with water for 3-5mins.
2) Stain with Hematoxylin Solution for 1-2min。
3) Follow Paraffin Section Staining staining steps.

Result

Nucleus	Blue
Cytoplasm and Fibers	Red

Note

1. Slice dewaxing should be as clean as possible.Replace series of ethanol frequently with new liquids.
2. It is suggested to take 1-2 samples for pretest before formal test.
3. Lightly stained hematoxylin is recommended in the dyeing process. Usually only the nucleus can be distinguished. Too deep color may affect the color of cytoplasm.
4. The differentiation time of the differentiation solution should be determined according to the thickness of the slice, the type of tissue and the old and new of the hydrochloric alcohol differentiation solution. In

addition,rinse with tap water absolutely to remove residual acids after differentiation.

5. The dyeing time of frozen section should be as short as possible.
6. For your safety and health, please wear experimental clothes and disposable gloves.

Related products

G1010 Giemsa Stain Solution (Working Solution)

G1040 Wright Stain Solution

G1100 Eosin Y Stain Solution, For HE

G1140 Cole's Hematoxylin Solution (For Conventional Stain)

P2100 10×Polylysine