改良 Lillie-Mayer 苏木素染色液

货号： G4070
规格： 100mL/500mL
保存： 室温，避光保存，有效期 1 年。

产品介绍：

苏木素是组织化学和免疫组织化学中最常用的染料之一，可以广泛用于组织切片或培养细胞的染色。改良 Lillie-Mayer 苏木素染色液无毒，无氧化膜，不着染胞质和纤维成分，属进行性染色，细胞核染色质着色深而细微，临床上常替代 Harris 苏木素染色液，染色后可以不用盐酸乙醇分化，染色时间一般 3～5min。常用于常规组织切片 HE 染色。

操作步骤：*（仅供参考）*

（一）样品处理

1. 对于石蜡切片：二甲苯中脱蜡两次，每次 5-10 min。无水乙醇 5 min，90%乙醇 2 min，70%乙醇 2 min，蒸馏水 2 min；
2. 对于冰冻切片：蒸馏水浸泡 2 min 复温；
3. 对于培养细胞：用 4%多聚甲醛固定 20min，蒸馏水洗涤 2 次，每次 2 min。

（二）染色

1. 对于上述处理好的样品，用苏木素染色 3-5 min（根据染色结果和要求调整时间），蒸馏水洗 5-10s。
2. （可选）酸性分化液分化，蒸馏水洗 5-10s。
3. 自来水浸洗 10min 或返蓝液浸洗 2-3min，蒸馏水洗 2min 返蓝。（见注意事项 3）
4. 伊红染色 30s-2min。（见注意事项 4）
5. 95%乙醇脱水 2 次，每次 2 min；二甲苯透明 5 min，用中性树胶或其它封片剂封片。

染色结果：

细胞核	蓝色
细胞质、纤维等	深浅不一的红色

注意事项：

1. 切片脱蜡应尽量干净， 95%的乙醇应经常更换新液。
2. 酸性乙醇分化时间应该依据切片厚薄、组织的类别和分化液的新旧而定，另外分化后自来水冲洗时间应该足够。冰冻切片的染色时间尽量要短。
3. 促蓝液可使用氨水水溶液（G1822）或 Scott 促蓝液（G1865）或碳酸锂溶液（1840）。
4. 伊红染色液推荐使用醇溶伊红（G1108）或去钠醇溶伊红（G1106）。
5. 为了您的安全和健康，请穿实验服并戴一次性手套操作。
6. 使用场所应通风，并远离火源。

参考文献：

[1]ZixuanLiu.Tetrachlorobenzoquinone exposure triggers ferroptosis contributing to its neurotoxicity. Chemosphere.September 2020.(IF 5.778)
[2]ZixuanLiu.Fostered Nrf2 expression antagonizes iron overload and glutathione depletion to promote resistance of neuron-like cells to ferroptosis.Toxicology and Applied Pharmacology.September 2020.(IF 3.347)

Modified Lillie-Mayer Hematoxylin Stain Solution

Cat: G4070
Size:100mL/500mL
Storage:RT, avoid light, valid at least for 1 year.

Introduction

Hematoxylin is one of the most commonly used dyes in histochemistry and immunohistochemistry. It can be widely used for staining tissue sections or cultured cells. The Modified Lillie-Mayer Hematoxylin Solution is nontoxic, has no oxide film, does not stain the cytoplasm and fiber components, which belongs to progressive staining, the nuclear chromatin is deep and subtle, and often replaces Harris hematoxylin staining solution in clinical practice. After staining, it can differentiate without hydrochloric acid ethanol, and the staining time is generally 3-5min. It is commonly used in HE staining of conventional tissue sections.

Protocols(*for reference only*)

Sample treatment

1) for paraffin section： Dewax in xylenetwice for 5-10min each, 90% alcohol for 2min, 70% alcohol for 2min,soak in distilled water for 2min.
2) for frozen section:Soak in distilled water for 2min to rewarming.
1) for cultured cell:Fix with 4% PFA for 20min,wash with distilled water twice for 2min each.

Hematoxylin(H-E)staining

1) For the above treated samples, dye with Modified Lillie-Mayer Hematoxylin Solution for 3-5min (adjust the time according to the dyeing results and requirements).Rinse in distilled water for 5-10s.
2) (Optional)Differentiate by Acid Differentiation Solution ,wash with distilled water for 5-10s.
3) Wash with tap water for about 10min or return blue by bluing solution for 2-3min.(See Note 3)
4) Stain with Eosin Solution for 20s-2min.(See Note 4)
5) Dehydration, transparency, sealing

Dehydrate in 95% ethanol for 2min, then replace with fresh 95% ethanol for 2min. Transparent in xylene for 5 min, then replace with fresh xylene for 5min, and seal with resinene or other sealing agent.

Result

Nucleus	Blue
Cytoplasm, Fiber	Red in different grades

Note

1. Section dewaxing should be as clean as possible.95% ethanol should be replaced frequently.
2. The differentiation time of Acid Differentiation Solution should be determined according to the thickness of slice, the type of tissue and the old and new of differentiation solution. In addition, the washing time of tap water after differentiation should be enough.The staining time of frozen section should be as short as possible.
3. The bluing Solution could choose Ammonia Water Solution(G1822) or Scott Bluing Solution(G1865) or Lithium Carbonate Solution(G1840).
4. For Eosin solution ,Eosin Y Solution,0.5%, Ethanol Solvent (G1108) or Sodium-Free Eosin Y Solution,0.5%, Ethanol Solvent(G1106) is recommended.
5. For your safety and health, please wear experimental clothes and disposable gloves.
6. The place of operation shall be ventilated and away from the fire source.

Reference

[1]ZixuanLiu.Tetrachlorobenzoquinone exposure triggers ferroptosis contributing to its neurotoxicity. Chemosphere.September 2020.(IF 5.778)
[2]ZixuanLiu.Fostered Nrf2 expression antagonizes iron overload and glutathione depletion to promote resistance of neuron-like cells to ferroptosis.Toxicology and Applied Pharmacology.September 2020.(IF 3.347)