V02

改良 Harris 苏木素染色液

货号：G1150
规格：100mL/500mL
保存：室温，避光保存，有效期 1 年。

产品介绍：

苏木素为碱性天然染料，可使细胞核着色。细胞核内染色质的成分主要是 DNA，在 DNA 双螺旋结构中，两条核苷酸链上的磷酸基向外，使 DNA 双螺旋的外侧带负电荷，呈酸性，很容易与带正电荷的苏木素碱性染料以离子键或氢键结合而被染色。苏木素在碱性溶液中呈蓝色，所以细胞核被染成蓝色。

操作步骤：*（仅供参考）*

石蜡切片染色

1、 二甲苯脱蜡 2 次，每次 5-10min。
2、 无水乙醇作用 2 次，每次 3-5min 。
3、 95%、85%、75%乙醇每次 3min 。
4、 蒸馏水浸洗 3min 。
5、 滴加改良 Harris 苏木素染色液 5-8min ，蒸馏水冲洗 5-10s 。
6、 （可选）滴加 1%盐酸乙醇分化 2-5s，蒸馏水冲洗 20-30s。
7、 （可选）滴加返蓝液返蓝 3-5min ，蒸馏水冲洗 30-60s 。
8、 （可选）滴加伊红染色 30s-2min ，蒸馏水快速冲洗 1-5s 。
9、 系列乙醇（75%、85%、95%）脱水，每梯度 3-5s。
10、 无水乙醇脱水 2 次，每次 1min 。
11、 二甲苯透明 2 次，每次 1min 。
12、 中性树脂封片，镜下观察。

冰冻切片染色

1、 使用丙酮固定 30s 或 4℃预冷的 4%多聚甲醛固定 20min。
2、 蒸馏水冲洗 2min。
3、 滴加改良苏木素染色液滴染 1-2min(可 50℃预热 10min)。
4、 其余操作步骤同石蜡切片染色步骤。

细胞染色

1、 4%的多聚甲醛固定 10-20min。
2、 蒸馏水冲洗 2 次，每次 2min。
3、 染色、脱蜡、透明、封固步骤同冰冻切片的操作步骤。

染色结果：

细胞核	蓝色
细胞质、肌纤维、胶原纤维、甲状腺胶质等	红色
角蛋白、红细胞	橙红色

注意事项：

1. 切片脱蜡应尽量干净。乙醇应经常更换新液。
2. 盐酸乙醇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。分化后要充分洗去分化液。
3. 冷冻切片染色时间尽量要短。
4. 促蓝液常使用 0.2～1%氨水水溶液或 Scoot 促蓝液或 0.1～1%碳酸锂水溶液。
5. 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 Harris Hematoxylin Stain Solution

Cat: G1150
Size:100mL/500mL
Storage: RT, avoid light, valid for 1 year.

Introduction

Hematoxylin is an alkaline natural dye, which can stain the nucleus. The chromatin in the nucleus is mainly DNA. In the double helix structure of DNA, the phosphate groups on the two nucleotide chains are outward, which makes the outside of the double helix of DNA negatively charged and acidic. It is easy to dye with positively charged hematoxylin basic dye by ion bond or hydrogen bond. Hematoxylin is blue in alkaline solution, so the nucleus is dyed blue.

Protocol(*for reference only*)

For Paraffin Section Staining

1. Xylene twice for each time 5-10 min.
2. Absolute alcohol twice for each time 5 min.
3. 95%, 85%, 75% alcohol for each time 3 min.
4. Rinse in distilled water for 3 min.
5. Stain with Modified Harris Hematoxylin Stain Solution for 5-8 min. Rinse in distilled water for 5-10s.
6. (optional)Differentiate with Acid Alcohol Solution for 2-5s. Rinse in distilled water for 20-30s.
7. (optional)Blue in weak alkaline water for 20-40s.Rinse in distilled water for 30-60s.
8. (optional)Stain with Eosin Solution for 3-5 min.Quickly wash in distilled water for 1-5s.
9. Dehydrate with series ethanol(75%, 85%, 95% alcohol)for each time 3-5s.
10. Absolute alcohol twice for each time 1 min.
11. Xylene three times for each time 1 min.
12. Seal with resinene.

For Frozen Section Staining

1. Fix in acetone fixative for 5-10s or in pre-cooled 4% paraformaldehyde for 20min.
2. Rinse in distilled water for 2min.
3. Stain with Modified Harris Hematoxylin Stain Solution for 1-2 min(can pre-heat 10min at 50℃) .
4. The follow steps are the same as the steps of paraffin section.

For Cells Staining

1. Fix in 4% paraformaldehyde for10-20 min.
2. Rinse in distilled water twice for each time 2 min.
3. The steps of staining, dewax, transparentency and sealing are the same as the steps of frozen section.

Result

Nucleus	Blue
The cytoplasm, muscle fiber, collagen fiber, thyroid colloid and so on	Red
Keratin and Red Blood Cells	Bright Orange Red

Note

1. Section dewaxing should be as clean as possible. Alcohol should be replaced frequently.
2. The differentiation time of Acid Alcohol Differentiation Solution should be determined according to the thickness of section, the type of tissue and the old and new of Acid Alcohol Differentiation Solution. In addition, the washing time of tap water after differentiation should be enough to thoroughly wash the acid.
3. The staining time of frozen section should be as short as possible.
4. 0.2-1% ammonia solution or Scoot blue solution or 0.1-1% lithium carbonate solution are often used as blue promoting solution.
5. For your safety and health, please wear experimental clothes and disposable gloves.