

植物组织染色液（甲苯胺蓝法）

货号：G4807

规格：100mL

保存：室温，避光保存，有效期 1 年。

产品介绍：

甲苯胺蓝(Toluidine Blue O)属于醌亚胺染料类，是一种多色碱性染料，含有两个发色团和两个助色团，可根据植物组织和细胞的不同成分的不同 pH 染成蓝绿色或紫红色，可用于成分鉴别。本产品适用于高等植物的茎、叶的石蜡切片和徒手切片染色，且染色时间短、效果稳定、对比鲜明。

自备材料：

95%乙醇、Carnoy 固定液或 AAF 固定液

操作步骤：（仅供参考）

1. 取新鲜植物组织，置于 Carnoy 固定液或 AAF 固定液里进行负压处理（见注意事项 1），然后进行正常脱水包埋。
2. 根据实验需求切成 3-10um 的组织切片，贴片并热处理后常规脱蜡复水。
3. 入甲苯胺蓝染色液中常温染色 15-30min。（见注意事项 2）
4. 蒸馏水稍洗两次，每次 3-5s，洗去多余染料。
5. 95%乙醇分化 3-5s。
6. 无水乙醇脱水，二甲苯透明，中性树胶封片。
7. 镜检，拍照。

染色结果：

木质化部分	蓝绿色
非木质化部分	紫蓝色

注意事项：

1. 可使用真空泵或针筒进行负压（~500mm 汞柱）处理 15-20min，使植物组织内气体尽量排除促进固定液浸润。负压后更换新的固定液固定过夜后，换用 75%乙醇缓冲 1h 即可正常脱水包埋。优选步骤，固定过程建议在 2-8°C 进行。
2. 优选步骤，染色步骤可优化为 37°C 恒温摇床染色 10-15min。
3. 如组织过多无法第一时间脱蜡包埋，可浸于 75%乙醇 2-8°C 保存数月。
4. 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：

G1375 番红 O-固绿染色液（植物染色）

G2312 Carnoy 固定液

G2310 Carnoy 固定液II

G2350 AAF 固定液（适用于成熟组织）

G2355 AAF 固定液（适用于幼嫩组织）

Plant Tissue Staining Solution(Toluidine Blue Method)

Cat: G4807

Size: 100mL

Storage:RT, avoid light, valid for 1 year.

Introduction

Toluidine blue O belongs to quinone imine dyes. It is a multicolor alkaline dye, which contains two chromophores and two color AIDS. It can be dyed blue-green or purplish red according to the different pH of different components of plant tissues and cells, and can be used for component identification. This product is suitable for paraffin section and bare hand section dyeing of stems and leaves of higher plants, with short dyeing time, stable effect and sharp contrast.

Self Provided Materials

Distilled water, 95% ethanol, Carnoy Fixative or AAF fixative

Protocol (for reference only)

1. Take fresh plant tissue, place it in Carnoy Fixative or AAF Fixative for negative pressure treatment (see Note 1), and then carry out normal dehydration and embedding.
2. According to the experimental requirements, cut into 3-10um tissue sections, patch and heat treatment, and then conventional dewaxing and rehydration.
3. Dye in Plant Tissue Staining Solution(Toluidine Blue Method) at room temperature for 15-30min. (see Note 2)
4. Wash it twice with distilled water for 3-5s each time to remove the excess dye.
5. Differentiate with 95% ethanol for 3-5s.
6. Series of ethanol dehydration, xylene transparent, neutral gum seal.
7. View under the microscope and photograph.

Result

Xylem cell wall	Blue Green
Non xylem cell wall	Purple Blue

Note

1. Vacuum pump or syringe can be used for pressure (~ 500mm Hg) treatment for 15-20min to eliminate the gas in plant tissue and promote the infiltration of fixed solution. After negative pressure, replace with a new fixed solution for fixation overnight, and then replace with 75% ethanol for buffering for 1h to dehydrate and embed normally. Preferably, the fixation process is recommended to be carried out at 2-8 °C.
2. The dyeing step can be optimized as 37 °C constant temperature shaking table dyeing for 10-15min.
3. If too many tissues cannot be dewaxed and embedded at the first time, they can be soaked in 75% ethanol at 2-8 °C for several months.
4. For your safety and health, please wear lab clothes and disposable gloves

Related products

G1375 Saffron-O and Fast Green Stain Kit (For Plant)

G2312 Carnoy Fixative

G2310 Carnoy Fixative II

G2350 Alcohol Acetate Formalin(AAF) Mixed Fixative, 70%

G2355 Alcohol Acetate Formalin(AAF) Mixed Fixative, 50%