

植物组织透明液（中速）

货号：G4823

规格：100mL

保存：室温保存，有效期 1 年。

产品介绍：

在植物学实验中，用传统的方法不能观察到植物组织的不同层次结构，其原因是：样本中色素对光波的吸收作用和样本各部对光线折射率的不同，造成光线散射，不利于观察。为了更好的观察植物组织内部结构，近二十年来，已有大量组织透明技术被开发应用在了植物组织成像领域，用于观察组织内外部病菌和荧光蛋白。目前常用的植物组织透明方法可以分成基于有机溶剂和基于水性溶剂的透明化方法，其中水合氯醛是最常用的方法，但由于其有特殊气味，对使用者不太友好。

植物组织透明液（中速）采用了基于水性溶剂的透明化方法，在 ClearSee 透明方法的基础上进行了优化和改良，解决了组织褐化问题，适用于轻薄嫩叶组织的整体透明，透明时间适中，一般 3-5 天内可实现完全透明。该试剂仅用于科研领域，不适用于临床诊断或其他用途。

自备材料：

4%组织细胞固定液或 10%中性福尔马林固定液。

操作步骤：（仅供参考）

1. 取新鲜组织，置于 4%组织细胞固定液中负压排气（组织沉于底部）固定 12-24h。（见注意事项 1）
2. 用镊子取出组织置于 1×PBS 中浸洗 2 次，每次 2-3min。
3. 用镊子取出组织置于植物组织透明液（快速）中室温透明 3-5 天。（见注意事项 3）
4. 进行后续操作步骤或置于植物组织保存液（G4820）中保存。

注意事项：

1. 组织需充分排气固定，否则会影响后续组织透明渗透效果。
2. 该试剂对于幼嫩薄叶组织透明效果最佳，成熟组织透明时间较长。
3. 透明时间根据组织类型不同可进行适当调整，若想减少透明时间，可以进行真空负压透明。
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：

- G2312 Carnoy 固定液
- G2355 AAF 固定液(适用于幼嫩组织)
- G4805 植物胼胝质染色液（苯胺蓝法）
- G4820 植物组织保存液
- G4821 植物组织脱色液
- G4822 植物组织透明液（快速）





Plant Tissue Transparent Solution (Medium)

Cat: G4823

Size: 100mL

Storage: RT, valid for 1 year.

Introduction

In botanical experiments, traditional methods cannot observe the different hierarchical structures of plant tissues. The reason is that the absorption of light waves by pigments in the sample and the different refractive indices of light in different parts of the sample cause light scattering, which is not conducive to observation. In order to better observe the internal structure of plant tissues, a large number of tissue transparency techniques have been developed and applied in the field of plant tissue imaging in the past two decades, for observing pathogens and fluorescent proteins inside and outside tissues. The commonly used methods for plant tissue transparency can be divided into organic solvent based and water-based solvent based methods. Among them, chloral hydrate is the most commonly used method, but due to its special odor, it is not very user-friendly.

The Plant Tissue Transparent Solution (Medium) adopts a transparent method based on water-based solvents, which has been optimized and improved on the basis of the ClearSee transparent method, solving the problem of tissue browning. It is suitable for overall transparency of light and thin tender leaf tissues, with a moderate transparency time, and can generally achieve complete transparency within 3-5 days. This reagent is only used in the field of scientific research and is not suitable for clinical diagnosis or other purposes.

Self Provided Materials

4% PFA fixative or 10% neutral formalin fixative.

Protocols(for reference only)

1. Take fresh tissue and place it in 4% PFA fixative for negative pressure exhaust (tissue sinks to the bottom) to fix for 12-24 hours. (See Note 1)
2. Use tweezers to remove tissue and immerse it in 1×PBS for 2-3 minutes twice.
3. Use tweezers to remove tissue and place it in Plant Tissue Transparent Solution (Medium) at room temperature for 3-5 days. (See Note 3)
4. Follow the subsequent steps or store in Plant Tissue Preservation Solution (G4820).

Note

1. The organization needs to fully exhaust and fix it, otherwise it will affect the subsequent transparent penetration effect of the organization.
2. This reagent has the best transparency effect on young and thin leaf tissues, and the transparency time of mature tissues is longer.
3. The transparency time can be adjusted appropriately according to the type of organization. If you want to reduce the transparency time, you can perform vacuum negative pressure transparency.
4. For your safety and health, please wear laboratory clothes and disposable gloves when operating.

Related products

G2312 Carnoy Fixative

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

G4805 Plant Callose Staining Solution(Aniline Blue Method)

G4820 Plant Tissue Preservation Solution

G4821 Plant Tissue Decolorization Solution

G4822 Plant Tissue Transparent Solution (Fast)

