Iron Staining Solution For Plant Tissues

Cat #: A-CSH416

Size: 2×50mL

Storage: Room temperature, avoid light (12 months)

Product Description

The Prussian blue reaction, also known as Perls' reaction, is an ancient and sensitive staining method for visualizing iron. The staining principle involves the separation of trivalent iron ions from proteins by potassium ferrocyanide solution, followed by the reaction of trivalent iron with potassium ferrocyanide to form an insoluble blue compound, ferric ferrocyanide.

Plant Tissue Iron Staining Solution is mainly composed of potassium ferrocyanide solution and dilute acid. It is particularly suitable for staining plant tissues to demonstrate various forms of trivalent iron within localized tissues. This staining solution has good stability, can be stored for a long time without precipitation, and has a wide range of applications. It can also be used for restaining. This reagent is for research purposes only and should not be used for clinical diagnosis or treatment.

Usage

1. Take the plant seeds or tissues to be stained. If staining tissues, slice them into thin sections.
2. Prepare fresh Perls stain and let it stand. Immerse the samples in the Perls stain. The staining time may vary depending on the specific sample. Adjust it accordingly based on the experiment.
3. Rinse the samples three times with distilled water.
4. Place the samples in the Plant Clearing Solution until they become completely transparent.
5. Take a small amount of Plant Clearing Solution along with the sample and place it on a glass slide. Cover it with a coverslip, ensuring that seeds are not pressed down. For tissue sections, slight pressure may be applied.
6. Observe under a microscope.

Notes

1. Keep the containers clean throughout the entire process and avoid using iron-made metal products. Use distilled water for washing sections and containers, as regular water may contain iron.

2. Adjust the staining time of Perls stain according to the sample conditions.

3. For frozen sections and cell staining, it is best to explore experimental conditions based on specific circumstances.

Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.