# Fuchsin O-Resorcin Green Staining Solution For Plant Tissues

Cat #: A-CSH358

Size: 3×50mL

Storage: Room temperature, avoid light (12 months)

## Product Composition

| Component | 3×50ml | Store at |
|---|---|---|
| Reagent (A): Penta O staining solution | 50ml | 10~30°C, and were protected from light |
| Reagent (B): Acid ethanol differentiation solution | 100ml | 10~30°C |
| Reagent (C): solid green staining solution | 50ml | 10~30°C, and were protected from light |

## Product Description

The Fuchsin O-Solid Green staining solution is mainly composed of Fuchsin O staining solution and Solid Green staining solution. After staining tissue sections from roots, stems, leaves, etc., the Fuchsin O component imparts a bright red color to the cell nuclei and lignified cell walls, a transparent pink color to keratinized cell walls, and a reddish-brown color to corky walls. The Solid Green component imparts a bluish-green color to the cytoplasm and cellulose-containing cell walls. Proper differentiation is crucial for Fuchsin O-Solid Green staining. Over-differentiation can result in poor staining, while insufficient differentiation can lead to excessive staining. This reagent is intended for research purposes only and should not be used for clinical diagnosis or treatment.

## Usage

1. Specimen preparation: Fixation and embedding in paraffin.

2. Mounting: Cut the material into thin sections, place the sections on glass slides, heat to flatten them. The slides used must be clean. Apply the adhesive to the glass slide, then place the section on the adhesive, floating it on the mounting medium. Place it on a hot plate to flatten the section, ensuring there are no wrinkles. Incubate in an oven at 30-40°C for

approximately 1 hour. Common adhesives used include gelatin, Mayer's albumin, and Land's solution.

3. Deparaffinization: Xylene → 50% xylene + 50% ethanol → 100% ethanol → 95% ethanol → 85% ethanol → 70% ethanol → 50% ethanol → 30% ethanol → water. Each step should take 5-10 minutes.

4. Stain with Fuchsin O staining solution for 2-12 hours.

5. Differentiate with acid ethanol differentiation solution for a few seconds, rinse with water to remove excess color.

6. Decolorize: 35% ethanol → 50% ethanol → 70% ethanol → 80% ethanol. Each step should take 30-60 seconds.

7. Rinse briefly with distilled water.

8. Immerse in Solid Green staining solution for 10-40 seconds.

9. Dehydrate with 95% ethanol, followed by two rounds of dehydration with absolute ethanol for 30 seconds to 1 minute each time. Clear with a mixture of 50% xylene and 50% ethanol for 5 minutes, then xylene for 5 minutes, and xylene again for 5 minutes.

10. Mount with resin and perform microscopic examination promptly.

## Staining Results

| | |
|---|---|
| Muber, dethering, cutin | red |
| The cell wall of the cellulose | blue-green |

## Notes

1. After Fuchsin staining, it is necessary to practice decolorization in 50% ethanol. If the decolorization is not sufficiently green, it will result in poor staining. Over-decolorization can lead to a faint red color or even complete green color.

2. Solid Green is a fast-acting dye, and the staining time should not be excessively long, as it can cause the Fuchsin color to fade.

3. The staining time is not absolute and may vary depending on the type of material and the thickness of the sections.

4. For your safety and health, please wear laboratory attire and disposable gloves while performing the procedure..

## Disclaimer

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