CREATIVE BIOMART®
Assay Kit

Casparian Strip Stain Kit

Product Information

Product Overview

The primary structure of plant roots consists of three layers from outside to inside: epidermis, cortex, and stele. The innermost layer of the cortex is the endodermis, whose cells are tightly and regularly arranged. The transverse and radial walls of endodermal cells typically exhibit lignified and suberized thickenings forming a belt-like structure encircling the cell, known as the Casparian strip. In transverse sections, these structures appear as dot-like thickenings on adjacent radial walls and are referred to as Casparian dots.

The Casparian strip plays a critical role in regulating water and solute exchange between the cortex and the vascular stele.

This staining kit is designed for visualization of Casparian strips in the vascular tissues of primary roots. Under UV excitation, Casparian strips located on the radial and transverse walls of endodermal cells emit yellow-white to yellow-green fluorescence, while the background exhibits blue to blue-violet fluorescence. The staining is sensitive, clearly contrasted, and reproducible.

Size

2*50 mL

Storage

Store at 2–8 °C, protected from light. Shelf life: 6 months.

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