Resource Summary Report

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Root nitrate influx

DOI:10.17504/protocols.io.biibkcan
Type: Protocol

Proper Citation

Prajakta Bendre, Vanessa Melino 2020. Root nitrate influx . protocols.io dx.doi.org/10.17504/protocols.io.biibkcan

Protocol Information

URL: https://dx.doi.org/10.17504/protocols.io.biibkcan

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Summary: Nitrogen (N) in the form of nitrate (NO3-) can move radially from roots to the vascular tissue from where it is transported to the above-ground organs. Roots are the first to sense the scarcity of nitrogen in the soil. The following protocol describes the step-wise procedure for performing unidirectional root NO3- influx with the use of 15N labelled NO3- at a concentration that stimulates the inducible high-affinity nitrate transporters. Stable isotopes such as 15N can be used to trace the movement of NO3- through the plant. This protocol uses a split-root design where only embryonic roots are treated with the 15N label. The remaining, non-embryonic roots are not labelled but similarly treated. this split-root design can be modified to select and label specific root types based on your interest. .justify:after { content: ""; display:inline-block; width: 100%; }

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