

Resource Summary Report

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Leaf Protein Extraction for Immunoblot (Soybean, Cowpea, Tobacco)

DOI:10.17504/protocols.io.bqnmmvc6

Type: Protocol

Proper Citation

Steven Burgess 2020. Leaf Protein Extraction for Immunoblot (Soybean, Cowpea, Tobacco). protocols.io dx.doi.org/10.17504/protocols.io.bqnmmvc6

Protocol Information

URL: <https://dx.doi.org/10.17504/protocols.io.bqnmmvc6>

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Group: Ag SynBio Lab UIUC

Summary: This protein extraction protocol was developed for analysis of protein abundance in leaf tissue by immunoblot. It was optimized for dicot species including Glycine max. Quantities - 450 μ L protein extraction buffer (PEB) per three 13.4 mm diameter leaf disks (size #7 Humboldt Cork Borer) Note from Agrisera: Keeping sample volumes in a range of 0.2-0.5 mL has been found to contribute to better extraction results, an upscale in volume is not recommended, if no cork borer available the suggestion is 500 μ L PEB per 100 mg of plant tissue. - Final volume $\sim$ 400 μ L - Expected yield: 1.5 - 6 μ g / μ L - Total yield: 6 - 24 mg protein - Amount of total soluble protein to load per lane 30 μ g Note: when using the TissueLyser II it is recommended to use 2 mL centrifuge tubes in conjunction with 4mm beads. 1.5mL tubes are narrow at the end and samples will not grind properly if you use the 4mm beads.

Affiliations: University of Illinois at Urbana-Champaign

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