

ab308293 – Plant Tissue Extraction Kit

Extraction of plant soluble protein and metabolites for various downstream applications such as Western Blotting, 2-D gel electrophoresis, immunoprecipitation assay, enzymatic activity assay and quantitation of metabolites etc.

For research use only - not intended for diagnostic use.

For overview, typical data and additional information please visit: [abcam website](#)

Storage and Stability

Store kit at -20°C, protect from light. Homogenization Pestles and tubes can be stored at room temperature or -20°C. Thaw reagents before use. Briefly centrifuge small vials prior to opening. Read entire protocol before performing the assay.

Materials Supplied

Item	Quantity
Plant Extraction Buffer	25 ml
Protease Inhibitor Cocktail (Avoid light)	1 ml
Homogenization Pestles	3
Homogenization Tubes (1.5 ml)	3

Materials Required, Not Supplied

These materials are not included in the kit, but will be required to successfully utilize this assay:

- Blades and tweezers
- Micro centrifuge
- Multi-well spectrophotometer (ELISA reader)
- BCA Protein Assay Kit

Plant Total Protein Extraction Protocol:

Extraction:

Add 5 µl of Protease Inhibitor Cocktail to 995 µl of Plant Extraction Buffer before use and keep on ice to chill. Clean the tissue with dH₂O and remove excess water. Weigh the fresh or frozen tissue (~50-100 mg) and cut into small pieces with blade. Transfer the tissue pieces into provided 1.5 ml Homogenization Tube and add ~200-400 µl ice cold Plant Extraction Buffer with Protease Inhibitor Cocktail. Homogenize the tissue on ice by rotating the pestle in the provided 1.5 ml Tube for 60 times. Keep the Tube on ice for 10 min. Centrifuge at 10,000 x g, 4°C for 5 min. and collect the supernatant.

Δ Note:

- Thaw the frozen plant tissue on ice before cutting into small pieces.
- To soften the dry plant tissue such as seeds, roots etc. completely soak the tissue in dH₂O and incubate at 4°C for 1-2 days.
- Homogenization Pestles and Tubes are reusable. After each use, rinse 3 times with dH₂O and air-dry.

Protein Quantitation:

Measure the protein concentration using BCA Protein Assay Kit (AB207003 or equivalent). Keep the plant tissue homogenate on ice for immediate use, or store at -80°C for future use.

Technical Support

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