Detergent-free Total Protein Extraction Kit (for Animal Tissues)

Cat. #: P506L (50 rxn); P506 (20 rxn); P506S (5 rxn)

Storage: Store at 4°C

Shelf Life: 12 months

Product Description

Rapidly extract detergent-free total proteins from animal tissues (invertebrate and vertebrate) in 5 minutes. The extracted protein can be used for proteomics (LC/MS), IP, ELISA, 2D-gel analysis, isoelectric focusing, SDS-PAGE, immunoblottings, and other applications.

- Optimized lysis buffer for all kinds of animal tissues (invertebrate and vertebrate).
- Fast – 1~8 minutes
- Flexibility – the extraction volume can be 20 µL to 500 µL.
- High yield – 1~5 mg / mL

This product is for research use only.

Product Contents

Component	Amount			Storage
	P506L (50 rxn)	P506 (20 rxn)	P506S (5 rxn)	
Buffer A	15 mL	6 mL	1.5 mL	4°C
Buffer B	15 mL	6 mL	1.5 mL	4°C
protein extraction filter cartridges	50	20	5	Room temperature
collection tubes with cap	50	20	5	Room temperature
Plastic rod	4	1	1	Room temperature

Note

The use of protease inhibitors is not necessary prior to extraction. However if downstream application takes significant amounts of time or the protein extract will be stored for longer period of time, addition of protease inhibitors to Buffer A is recommended. For determination of protein concentration, BCA kit (Pierce) is recommended. To study protein phosphorylation, phosphatase inhibitors (such as PhosStop from Roche) should be added to Buffer A prior to use.

Additional Materials Required

- 1 X PBS
- Vortexer
- Table-Top Microcentrifuge
- BCA Protein Assay Kit (Pierce, Cat #. 23227)

Protocol:

Following procedures are for 10 ~ 20 mg starting animal tissues. For insect such as *Drosophila,* use 15 ~ 20 *Drosophila* larvae, pupa or adult flies / sample. If smaller or larger amounts of starting materials are used, adjust the amount of buffers proportionately.

1. Prior to protein extraction, pre-chill the buffers and the protein extraction filter cartridge in collection tube on ice.

2. Place **10 ~ 20 mg fresh** or **frozen** tissue in the filter.

   Add **200 µL** Buffer A to the filter.

   Grind the tissue with a plastic rod for 50 ~ 60 time with twisting force.

   Add **200 µL** Buffer B to the filter and continue to grind for 30 ~ 60 times.

   Note: The plastic rod is reusable. Rinse it thoroughly with distilled water and dry it with paper towel.

3. Cap the filter and centrifuge at a microcentrifuge at top speed for 1 min. The supernatant of flow through is total protein extract. Transfer the clear supernatant to a fresh tube (this is detergent-free total protein extract).

Remarks: This protocol is developed and validated by 101Bio's OEM partner. Spin column based protein extraction and cell. fractionation technologies were developed by 101Bio's OEM partner.

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