

## Detergent-Free Total Protein Isolation Kit

Norgen's Detergent-Free Total Protein Isolation Kit provides a fast and simple procedure for the isolation of total proteins from tissue, bacteria, yeast or mammalian cells without the use of SDS, Triton® X-100 and other detergents. Detergents are extensively used to prepare protein samples; however, these detergents have undesirable effects on downstream analysis. These effects include extraneous peaks in mass spectrometry, artifacts with chromatography and electrophoresis, interference with microinjection into cells and interference with protein immunization.



The Detergent-Free Total Protein Isolation Kit maintains high protein recovery. Purification is based on using Norgen's proprietary resin together with Lysis Solution, followed by protein filtration using Norgen's filter column. The purified proteins can be used in a number of downstream applications including mass spectrometry, SDS-PAGE, isoelectric focusing, and NMR spectroscopy.

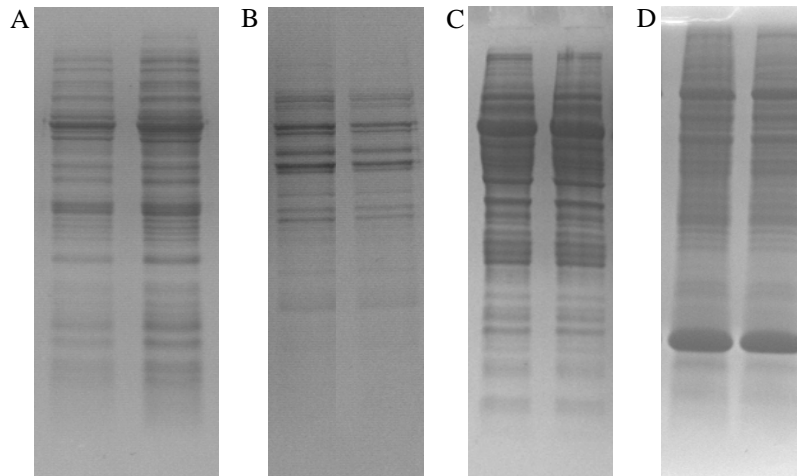
The Detergent-Free Total Protein Isolation Kit contains all the solutions, tubes and columns for the processing of 25 total detergent-free protein samples. Each Lysis Tube is able to process up to 50 mg of tissue,  $10^{10}$  bacterial cells,  $10^9$  yeast cells or  $10^7$  mammalian cells. Preparation time for 12 samples is less than 10 minutes.

Kit Specifications			
Minimum Tissue Input	50 mg	Maximum Mammalian Cell Input	$10^7$ cells
Maximum Bacteria Input	$10^{10}$ cells		
Maximum Yeast Input	$10^9$ cells	Time to Process 12 Samples	< 10 minutes

### Detergent-Free Total Protein Isolation Kit Benefits

Detergent-free protocol	The kit does not utilize detergent in any of the isolation steps, therefore the isolated proteins are 100% detergent-free.
Process a variety of inputs	Total proteins can be isolated from tissue, yeast, bacteria and mammalian cells using this kit.
Fast and easy processing	Preparation time for 12 samples is less than 10 minutes.
Isolated proteins can be used directly in downstream applications	No need for additional sample preparation procedures for downstream applications including mass spectrometry, SDS-PAGE, isoelectric focusing, and NMR spectroscopy.

## Detergent-Free Total Protein Isolation Kit



**Figure 1. Detergent-free Proteins Isolated from *E. coli*, Yeast, HeLa Cells and Kidney Tissue.** Total proteins were isolated from  $2 \times 10^9$  *E. coli* cells,  $2 \times 10^7$  yeast cells, 1 million HeLa cells and 15 mg of *Chinese hamster* kidney tissue in duplicate using Norgen's Detergent-Free Total Protein Isolation Kit. The total proteins were analyzed by running on 12% SDS-PAGE gels. Panel A corresponds to 10  $\mu$ L of the 40  $\mu$ L recovered proteins from *E. coli*, Panel B corresponds to 10  $\mu$ L of the 40  $\mu$ L recovered proteins from yeast, Panel C corresponds to 12  $\mu$ L of the 60  $\mu$ L recovered proteins from the HeLa cells, while Panel D corresponds to 2  $\mu$ L of the 60  $\mu$ L of recovered proteins from the kidney tissue. The proteins are intact and of the highest quality, and can be used in a number of different downstream applications.

### Detergent-Free Total Protein Isolation Kit Contents

1. Lysis Solution
2. Lysis Tubes
3. Filter Columns
4. Elution Tubes
5. Product Insert

### Storage Conditions

The Lysis Solution should be kept tightly sealed and stored at room temperature. Once opened, the solution should be stored at 4°C. The solution should remain stable for at least 1 year in its unopened container.

### Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- Micropipettors
- Vortex

### Shipping Conditions

The Detergent-Free Total Protein Isolation Kit is shipped at room temperature.

Cat #	Description	Quantity
30300	Detergent-Free Total Protein Isolation Kit	25 preps