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B-PER Lysis--CHEM 584

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ABSTRACT

The Thermo Scientific B-PER Bacterial Protein Extraction Reagent enables mild extraction of proteins from bacteria (*E. coli*) without the need for mechanical disruption. The reagent may be used for soluble protein extraction and inclusion body purification from bacterial cell lysates. The B-PER Reagent with Enzymes is supplied with lysozyme and DNase I to improve the extraction efficiency of large (> 70 kDa) molecular weight proteins and proteins expressed in inclusion bodies.

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Important Product Information

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B-PER Reagent effectively extracts soluble proteins from several common bacterial host strains and is especially suitable for the protease-defective expression host BL21 strains. If lysis is inefficient for a particular bacterial strain, freeze cells before extraction.

B-PER Lysis to extract soluble protein

1 Pellet bacterial cells by centrifugation at 5000 × g in a tared tube for **00:10:00** .

2 Decant your spent LB and determine the mass of your cell pellet.

3 Freeze your pellet in the -20°C freezer overnight or quickly freeze your pellet in liquid nitrogen. When you are ready to proceed, thaw your cells at room temperature.

4 Add **4 mL** of B-PER Reagent per gram of wet cell pellet. Pipette the suspension up and down until it is homogeneous.

5 Optional: Add **2 µl** of lysozyme and **2 µl** of DNase I per **1 mL** of B-PER Reagent added.

6 Incubate **00:15:00** at room temperature.

7 Centrifuge lysate at high speed (~15,000 × g) for **00:05:00** to separate soluble proteins from the insoluble proteins.

Note: If a large percentage of over-expressed protein remains in the pellet, the protein of interest might be expressed in inclusion bodies.

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