

ProteaPrep Cell Lysis Kit, Mass Spectrometry Grade

The ProteaPrep Cell Lysis Kit, Mass Spec Grade has been specially designed for the efficient recovery of purified protein lysates from biological samples. The ProteaPrep Cell Lysis Kit is a proprietary formulation containing a mixture of salts, glycerol, and an acid labile surfactant that has been optimized for efficient solubilization, extraction, and recovery of proteins during cell lysis. Because the ProteaPrep Cell Lysis Kit is free of lysozyme and harsh detergents (e.g. SDS), the product permits recovery of a cell lysate that is free from artifactual protein contaminants and promotes efficient sample protein solubilization.

The ProteaPrep Cell Lysis Kit features the Progenta Anionic Acid Labile Surfactant II (AALS II), a powerful acid cleavable detergent that alleviates the problems commonly associated with SDS and other detergents in proteomics studies. After completing the cell lysis, the cell extract solution can be adjusted to a pH of 2.5–3 (by TFA, formic acid, etc.) and incubated for 10–20 minutes to fully cleave the AALS into small organic molecules that do not exhibit surfactant activity or interfere with downstream sample preparation and analysis by techniques such as mass spectrometry, enzymatic digestions, 2D gel electrophoresis, and protein quantitation (e.g. Bradford and Lowry assays).

FEATURES:

- Cell lysate is free of lysozyme and harsh denaturing detergents (e.g. SDS)
- Proprietary anionic acid labile surfactant promotes solubilization of sample proteins with the benefit of rapid detergent degradation under acidic conditions
- Compatible with mass spectrometry, enzymatic digestions, 2D gel electrophoresis, and protein quantitation (e.g. Bradford and Lowry assays)



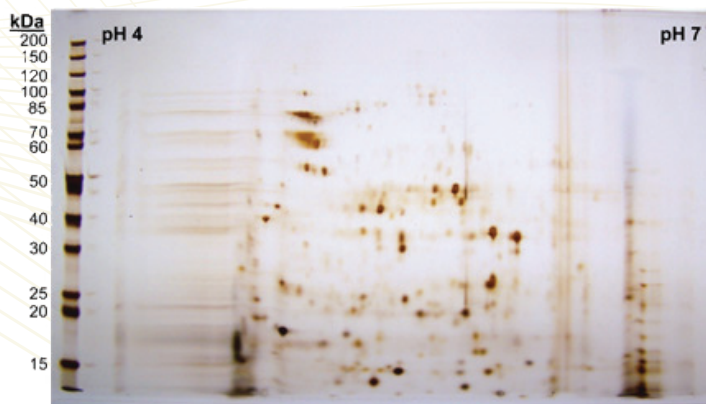
RESEARCH APPLICATIONS:

- Protein extraction and purification from cell lines, cultures, and tissues
- Purification of biologically active proteins and enzymes
- Shotgun proteomics analysis of complex protein samples
- Analysis of biological samples by 2D gel electrophoresis
- Extraction of proteins for immunoblot and ELISA analysis

ORDERING INFORMATION:

ProteaPrep Cell Lysis Kit, Mass Spectrometry Grade

Catalog Number	Size
SP-810-10mL	10 mL
SP-810-25mL	25 mL



Bacterial cells were lysed from BL21 *E. coli* strain using the ProteaPrep Cell Lysis Kit (SP-810). Following degradation of the AALS II detergent, 40 µg of lysate was separated using isoelectric focusing on a pH 4–7 gradient. The sample was then separated by SDS-PAGE on a 10% ProteaGel (PG-402D) and stained using Protea's Silver Stain Kit (SS-100). Over 200 protein bands are clearly resolved on the gel.