Sub-cellular structure fractionation and isolation

Using only a tabletop centrifuge!

SC-003 Cytoplasmic and Nuclear Fractionation kit (50 tests)

Designed to rapidly separate native cytosol and nuclear proteins from mammalian cells and protoplasts of plant, bacteria, yeast and fungus. Can be accomplished in less than 15 minutes.

ER-036 ER Enrichment Kit (20 tests)

Differentially precipitates native ER (mainly rough ER) from cultured cells/tissues without using a Dounce homogenizer or ultracentrifugation. Only a small amount of starting cultured cells or tissues are needed. Can be performed in ca. 2 hours.

ER-035 High Fidelity ER Isolation Kit for Liver Tissue (20 tests)

Differentially precipitate native ER (mainly rough ER) from frozen liver tissues without using a Dounce homogenizer or ultracentrifugation. The whole protocol can be done in ca. 2 hours

GO-037 Golgi Apparatus Enrichment Kit (20 tests)

Enrich native Golgi by precipitation without using a Dounce homogenizer or ultracentrifugation. Two sub-Golgi fractions can be obtained: Golgi apparatus and secretory vesicles of Golgi.

MP-007 Mitochondria Isolation Kit for Mammalian Cells and Tissues (50 tests)

Simple procedure and high yield in 30 minutes. The buffers are detergent-free and EDTA-free. Dounce homogenizer or tissue blender are not needed.

MM-038 Mitochondria Isolation Kit for Muscle Tissues/Cultured Muscle Cells (50 tests)

Intact mitochondria can be isolated from fresh/frozen muscle tissues in about 1h with a higher yield than traditional methods. Does not need polytron tissue disintegrator or ultracentrifuge.

ED-028 Endosome Isolation and Cell Fractionation Kit (20 tests)

Rapid and simple kit that requires a smaller number of cultured cells or milligram amounts of tissues to precipitate and significantly enrich early endosomes.

LY-034 Lysosome Isolation Kit (20 tests)

Significantly enrich lysosomes from cultured mammalian cells or tissues without using a Dounce homogenizer or ultracentrifugation. The whole protocol can be done in less than 1.5 hours.

NT-032 Cytosolic and Nuclear Extraction Kit for Frozen/Fresh Tissues (20 tests)

Minimizes the cross-contamination of cytosolic and nuclear fractions for fresh and frozen tissue samples.

AN-029 Nuclei and Cytosol Isolation Kit for Adipose Tissues (20 tests)

A rapid and simple method for obtaining high purity nuclei from adipose tissues despite high lipid and low protein content. Also, only milligram amounts of tissue are required.

AF-023 Adipose Tissue Fractionation Kit (20 tests)

The unique porous filter with specially formulated detergent-free buffer overcomes difficulty of high lipid and low protein content. Buffers in kit are free of primary amine, detergent and reducing agents.

PN-041 Nuclear Proteasome Enrichment Kit (20 tests)

The association of proteasomes with ubiquitin and other proteins is maintained in this gentle protocol, ideal for studies on structure and function. For cytosolic proteasome enrichment, use PT-040 ↓.

PT-040 Cytosolic Proteasome Enrichment Kit (20 tests)

The proteasome is enriched from the cytosol by removing nuclei and most organelles followed by preferential precipitation of cytosolic proteasomes. The gentle protocol maintains the association of proteasomes with ubiquitin and other proteins. For nuclear proteasome enrichment, use PN-041 ↑.

SM-005 Plasma Membrane Protein Isolation Kit (50 tests)

Quick isolation of plasma membrane and cell fractionation. Five distinct cell fractions (total membrane, PM, cytosol, nucleus and organelles) can be obtained in less than 45 minutes.

LR-039 Total Lipid Raft Isolation Kit for Mammalian Cells/Tissues (20 tests)

First, the total membrane fraction (incl. plasma and organelle membranes) is isolated and treated with a non-ionic detergent containing buffer. Then, the detergent resistant fraction is isolated by flotation centrifugation using a tabletop microcentrifuge. < 1.5 hours.

LR-042 Plasma Membrane-Derived Lipid Raft Isolation Kit (20 tests)

First, larger plasma membrane vesicles are isolated and treated with a non-ionic detergent containing buffer. Then, the detergent resistant fraction is isolated by flotation centrifugation using a tabletop microcentrifuge. Ca. 1 hour.

SE-030 Hi-Efficiency Saliva Exosome Isolation Kit (Non-PEG) (50 tests)

Highly viscous saliva samples can be converted to non-viscous solutions instantly by passing the samples through the filter. Exosomes can then be precipitated from as little as 100 µl saliva using the highly effective non-PEG-based reagent.

SN-047 Single Nucleus Isolation Kit for Tissues/Cells (20 preps)

Obtain a high percentage of well separated single nuclei in ca. 30 min. Requires less starting material and has a larger range of sample size (1-30 mg) in comparison to traditional methods.

NI-024 Detergent-Free Nuclei Isolation Kit (20 tests)

Rapidly isolate intact nuclei from animal cultured cells or tissue in 20 minutes (fresh or frozen) without detergents. The use of detergents can lead to unwanted nuclear aggregation or leakage. (Note: If detergents are not a concern for you, a cleaner background can be obtained with the kits SN-047, BN-020 or AN-029).

BN-020 Single Nucleus Isolation Kit for Neuronal Tissues/Cells (20 preps)

Highly purified single nuclei can be obtained in ca. 30 min. Compared to traditional methods, less starting material is required, and a large range of sample sizes can be handled (1-25 mg). Specially formulated for neuronal tissue with highly interconnected cells.

NE-013 Nuclear Envelope Protein Extraction Kit (50 tests)

Rapidly isolates the nuclear envelope and its associated proteins in native form without using density-gradient and ultracentrifugation. This kit starts with only 10-20 million cells, and the buffers are detergent and EDTA free. Less than 45 minutes, final yield 10-50 µg protein/sample.

NM-033 Detergent-Free Nuclear Matrix Protein Extraction Kit (20 tests)

Separates cellular protein from mammalian cultured cells/tissues into three fractions: cytosolic, nuclear matrix and water-insoluble fractions (mainly envelope and nucleic acid-associated proteins). Buffers used are detergent-free and EDTA-free. Extracted proteins are in native state. Less than 1 hour.

YM-017 Yeast Mitochondria Enrichment Kit (50 tests)

Isolate native mitochondrial proteins from yeast in about one hour without ultracentrifugation, in a gentle and instrument-free procedure. This kit contains optimized detergent-free protein extraction buffers

CP-011 Chloroplast Isolation Kit (50 tests)

Rapidly isolate intact chloroplasts from fresh plant tissue, e.g. leaves, seeds and soft stems. Thanks to filter cartridges with pre-defined pore size and thickness, intact chloroplasts can be isolated from 50-200 mg fresh plant tissue in less than 5 min. With this method, you can obtain >90% intact chloroplasts from fresh plant leaves.

PF-045 Plant Cytosolic and Nuclear Protein Isolation Kit (20 tests)

For the rapid fractionation of fresh/frozen soft plant tissues, especially leaves, with 100-200 mg starting material. Four subcellular fractions can be obtained in about one hour (cytosol, nuclei, chloroplasts and organelles).

MM-018 Plant Microsomal Membrane Extraction Kit (50 tests)

Simple, fast and user-friendly, even with a small amount of starting material. Water-soluble cytosolic proteins are removed, and the water-insoluble microsomal fraction is extracted with optimized buffers in a tabletop microcentrifuge. Ca. one hour with a protein yield of 100-200 µg/sample.

SM-005-P Plasma Membrane Protein Isolation Kit for Plants (50 tests)

Native plasma membranes are separated from a mixture of unruptured cells, nuclei, cytosol and organelles by subsequent differential centrifugation and density centrifugation without using ultracentrifugation. Can be completed within an hour.