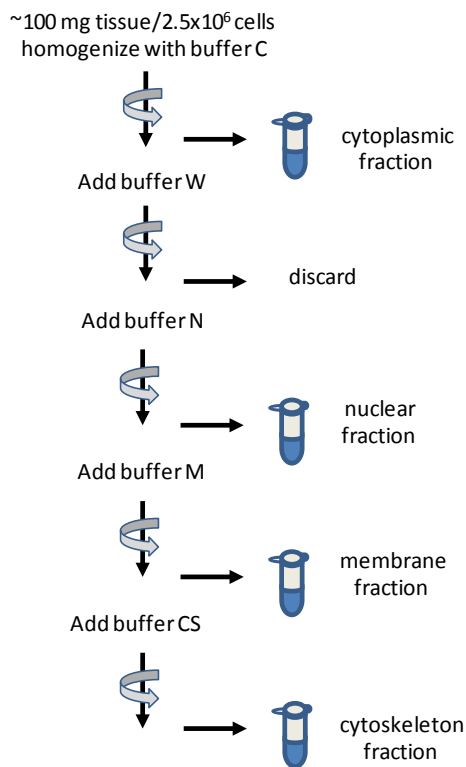


# CNMCS – Compartmental Protein Extraction Kit

Extraction of protein lysates: Cytoplasmic, Nuclear, Membrane, and Cytoskeleton

## One Kit for 4 Subcellular Fractions:

### CNMCS Cell Compartment Separation Procedure



## CNMCS Introduction:

Fractionation is the most frequently used separation method for enriching a subset of proteins while preserving the compartments where they exert their activities.

## Key Features

- **Increased Sensitivity:** enriching a subset of proteins of interest
- **Time-efficient:** isolating cellular proteins into 4 compartments in less than 3 hrs
- **Simple:** stepwise procedures without ultracentrifugation or complex gradients
- **Convenient:** providing all components for stepwise preparation of cytoplasmic, nuclear, membrane, and cytoskeleton proteins
- **Flexible:** one kit for extraction from mammalian tissue and cultured cells
- **Reliable:** high specificity and reproducibility while being cost-effective

However, traditional fractionation protocol is a multistep detergent extraction combined with gradient-based ultracentrifugation that is time-consuming and requires ultracentrifuge. BioChain's CNMCS Compartmental Protein Extraction Kit provides an easy-to-perform and cost-effective method to sequentially isolate cytoplasmic, nuclear, membrane and cytoskeleton protein extracts in three hours with bench-top centrifuges.

## Applications:

- Types of assays: Western Blot, mass spectrometry, gel-shift assay, and enzyme activity assay
- Detection of differential post-translational modifications or differential subcellular localization of target proteins
- Enrichment of low-abundance proteins for quantification and subsequent analysis
- Suitable for studies on protein translocation and DNA binding proteins

## CNMCS Protein Extraction from Mammalian Tissue:

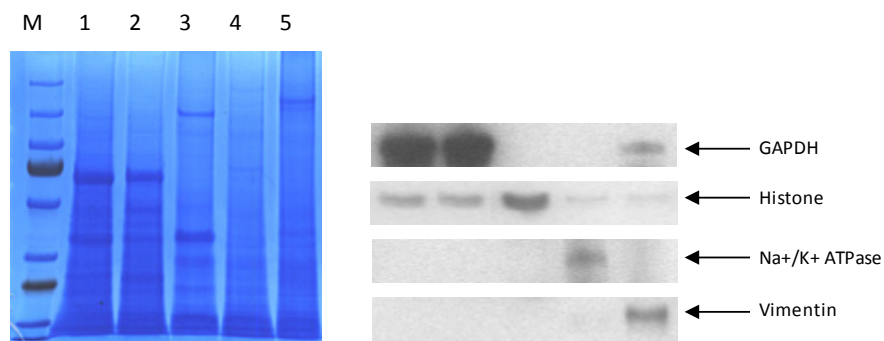


Figure 1. Total Protein and compartmental proteins extracted from rat colon tissue using BioChain's Total Protein Extraction Kit and CNMCS Compartmental Protein Extraction Kit. Left: Coomassie stained gel indicates distinct protein pattern of respective fractions. Right: Western blot with specific markers GAPDH (cytoplasmic), Histone H1 (nuclear), Na<sup>+</sup>/K<sup>+</sup> ATPase (membrane), and Vimentin (cytoskeleton).

Lane 1: Total Protein; Lane 2: Cytoplasmic Protein; Lane 3: Nuclear Protein; Lane 4: Membrane Protein; Lane 5: Cytoskeleton Protein

Catalog No.	Product
K3013010	CNMCS Compartmental Protein Extraction Kit
K3012010	CNM Compartmental Protein Extraction Kit

### Related Products

K3014005	Membrane Protein Extraction Kit
K3011010	Total Protein Extraction Kit
KC010100	Mitochondria Isolation Kit for Tissue and Cultured Cells
KC310100	Mitochondria Activity Assay Kit
K3171250	Attoglow Western Blot Analysis Kit: Millennium Enhancer (w/wo antibodies)
P323XXXX	Membrane Protein from human and multiple species
P1234XXX	Total Protein from human and multiple species

Please inquire about our other kits and applications.