

## Mammalian Cell & Tissue Extraction Kit

(Catalog #K269-500; 500 assays; Store at  $-20^{\circ}\text{C}$ )

### I. Introduction:

The Mammalian Cell & Tissue Extraction Kit provides optimized cell extraction buffer, protease inhibitor cocktail, and DTT for convenient extraction of mammalian proteins from cultured cells and tissue samples, under nondenaturing conditions. Cell lysate prepared using the kit can be used in a variety of applications, such as enzyme activity assays (e.g., caspase activity assays), Western blot analysis, and others. The entire procedure takes less than 20 minutes.

### II. Kit Contents:

Component	K269-500	Color Code	Part Number
	500 assays		
Extraction Buffer	50 ml	NM	K269-500-1
Protease Inhibitor Cocktail	1 vial	Red	K269-500-2
DTT (1 M)	110 $\mu\text{l}$	Blue	K269-500-3

### III. General Consideration and Reagent Preparation:

- After opening the kit, store Cell Extraction Buffer at  $+4^{\circ}\text{C}$ . Store Protease Inhibitor Cocktail and DTT at  $-20^{\circ}\text{C}$ .
- The Protease Inhibitor Cocktail is provided as lyophilized form. To reconstitute, add 100  $\mu\text{l}$  DMSO to the vial, pipet several times to dissolve all powder (This makes 500X concentrated Protease Inhibitor Cocktail).
- Before use, add 2  $\mu\text{l}$  of DTT and 2  $\mu\text{l}$  of Protease Inhibitor Cocktail to 1 ml of Cell Extraction Buffer (The mixture is referred as Extraction Buffer Mix).
- Be sure to keep the Extraction Buffer Mix on ice at all times during the experiment.
- The following protocol is described for extraction of  $\sim 2 \times 10^6$  cells and should generate  $\sim 100 - 300 \mu\text{g}$  of cell lysate. If large amount of cell lysate are desired, scale up the volumes proportionally.

### IV. Mammalian Protein Extraction Protocol:

- Collect cells by centrifugation at 600 x g for 5 minutes at  $4^{\circ}\text{C}$ .  
**Note:** For adherent cells, scrape cells into PBS and spin down to pellet cells.
- Resuspend cells in 100  $\mu\text{l}$  of the Extraction Buffer Mix. Pipet up and down several times.  
**Note:** For tissue samples, homogenize tissues in 2 - 3 volume of the Extraction Buffer Mix, until it is completely lysed.
- Incubate on ice for 10 minutes, then vortex for 5 seconds.
- Centrifuge in a microcentrifuge at top speed for 3 minute.
- Collect the supernatant (Cell Lysate) and discard the pellet.
- Store cell lysate at  $-70^{\circ}\text{C}$  for further studies.

**FOR RESEARCH USE ONLY! Not to be used in humans.**

### V. RELATED PRODUCTS:

#### Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

#### Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

#### Cell Proliferation & Senescence

- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

#### Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

#### Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

#### Adipocyte & Lipid Transfer

- Recombinant Adiponectin, Survivin, & Leptin
- CETP Activity Assay & Drug Discovery Kits
- PLTP Activity Assay & Drug Discovery Kits
- Total Cholesterol Quantification Kit

#### Molecular Biology & Reporter Assays

- siRNA Vectors
- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit
- $\beta$ -Galactosidase Staining Kit & Luciferase Reporter Assay Kit

#### Growth Factors and Cytokines

#### Monoclonal and Polyclonal Antibodies