

New

LIFE SCIENCE



# Nuclear / Cytoplasmic Fractionation Kit

Nuclear / Cytoplasmic Fractionation Kit

1 kit [N1208]

This product is a kit for convenient fractionation of nuclear and cytoplasmic proteins from cultured mammalian cells. By using the three reagents included, the quick collection of each fraction can be achieved. The extracted proteins can be used directly in downstream applications such as Western Blotting.

## Kit Components

- 1X Cytoplasmic Extraction Buffer  
for approx. 50 samples
- 20X Detergent Solution  
for approx. 50 samples
- 1X Nuclear Extraction Buffer  
for approx. 50 samples



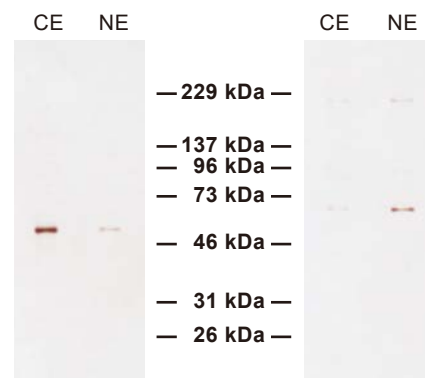
## Application

### [For Cytoplasmic Extraction]

1. Collect cells and wash cells twice with ice cold PBS. Use a cell scraper for adherent cells.
2. Resuspend the cells gently in cold 1X Cytoplasmic Extraction Buffer. Add 400  $\mu$ L of the buffer to 100  $\mu$ L of the cell volume ( $\sim 1 \times 10^7$  cells).
3. Incubate on ice for 10 minutes.
4. Add 20X Detergent solution to the cell suspension and vortex vigorously for 10 seconds. Use 25  $\mu$ L of 20X Detergent Solution per 500  $\mu$ L of the solution from (3).
5. Centrifuge at 800 x g for 10 minutes at 4 °C.
6. Transfer the supernatant (cytoplasmic fraction) to a new tube for downstream experiments.

### [For Nuclear Extraction]

7. Resuspend the pellet in cold 1X Nuclear Extraction Buffer. Add 100  $\mu$ L of 1X Nuclear Extraction Buffer per 100  $\mu$ L pellet.
8. Incubate the pellet solution on ice for 20 minutes, vortexing every 5 minutes.
9. Centrifuge at 15,000 x g for 10 minutes at 4 °C.
10. Transfer the supernatant (nuclear fraction) to a new tube for downstream experiments.



Example Western Blotting of a cytoplasmic fraction (CE) and nuclear fraction (NE) extracted with N1208, detected using  $\alpha$ -Tubulin antibody (left) and Lamin B1 antibody (right). Excellent separation was achieved.

## Ordering and Customer Service

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