

Matrix Protein Extraction Kit

Cat: EX1241

Size: 50T/100T

Store: 2-8°C (Store at 2-8°C before using protease inhibitor without lid, store at -20°C after using lid)

Kit Components:

Kit Composition	50T	100T	Storage
Solution A	50mL	100mL	2-8°C
Solution B	1mL	2mL	2-8°C
Golgi Protein Extract Solution C	12mL	24mL	2-8°C
Protease Inhibitor Mixture	100μL	100μL×2	-20°C
Instructions	1	1	

Introduction:

Golgi apparatus (Golgi bodies) is a organelle composed of many flat vesicles with secretion as the main function, also known as Golgi apparatus or Golgi complex; The Golgi apparatus is a highly polar organelle formed by several flat vesicles stacked together. They are usually located between the endoplasmic reticulum and the cell membrane and are arcuated or hemispherical, with the convex side facing the endoplasmic reticulum called the forming face or cis face. The concave side facing the plasma membrane is called the mature face or the opposite (trans face). There are some large or small transport vesicles on both sides of the face and the opposite side. In polar cells, the Golgi is often abundant in the cytoplasm of the secretory end. Because it looks very similar to the smooth endoplasmic reticulum, some scientists believe that it is evolved from the smooth endoplasmic reticulum.

The enzymes in the Golgi apparatus are mainly glycosyltransferase, sulfo-glycosyltransferase, oxidoreductase, phosphatase, protein kinase, mannosidase, transferase and phospholipase. The main function of the Golgi apparatus is to process, compare, classify, and package the proteins synthesized by the endoplasmic reticulum, and then send them to specific parts of the cell or secrete them outside the cell.

This kit contains protease inhibitor mixture, which prevents protease from degrading the protein, and provides a guarantee for extracting high purity protein, which can be used for downstream protein research experiments such as Western Blotting, protein electrophoresis, and immunoprecipitation.

Protocols:

1. Take about 100mg fresh animal tissue sample or 10^7 - 10^8 cells, wash them with PBS, add 400μL solution A, and put them on ice for 10min.

Note: Before using each 400μL solution A, add 1μL protease inhibitor mixture and mix well before use.

2. Break the tissue with a glass homogenizer/tissue grinder and centrifuge at $1000\times g$ at 4°C for

5min.

3. Discard the precipitation, inhale the supernatant into another pre-cooled clean centrifuge tube and centrifuge at 3000×g at 4°C for 10min.
4. Discard the precipitation and inhale the supernatant into another pre-cooled clean centrifuge tube. Add 10μL solution B to the supernatant and centrifuge at 20000×g at 4°C for 20min.
5. Discard the supernatant, add 500μL solution A to the precipitation, mix well, centrifuge at 20000×g at 4°C for 30min, discard the supernatant, collect the precipitation, that is, Golgi body.
6. Add 100-200μL Golgi protein extract solution C to the precipitation, blow and mix well, place at 4°C for 20-30min, centrifuge at 4°C for 10min at 10,000-14000 ×g.

Note: 200μL Golgi protein extract C was mixed with 1μL protease inhibitor mixture before use.

7. Inhale the supernatant into a clean centrifuge tube to obtain the Golgi protein sample.

Note:

1. The reagent in the screw cap trace reagent tube should be centrifuged briefly before opening the cap, and the liquid on the cap and inner wall should be centrifuged to the bottom of the tube to avoid the loss of the reagent when opening the cap.
2. All reagents must be pre-cooled during the experiment, and the sample must be kept at a low temperature during the whole process.
3. Both the protease inhibitor mixture and PMSF should be mixed during use. If the kit cannot be used up in a short time, the protease inhibitor mixture and PMSF should not be added to the extraction solution all at once.
4. This kit is for scientific research use only and is not intended for diagnosis or treatment.

Related Products:

R0020 Normal RIPA Lysate (tissue/cell)

PR1910 Rainbow 180 Broad Spectrum Protein Marker (11-180KD)

PC0020 BCA protein concentration determination kit

P1020 1×PBS Buffer (pH7.2-7.4)

P10405 5×Protein Loading buffer (including DTT)