

# Whey Protein Extraction Kit

Cat: EX1160 Size: 50T/100T Storage: 2-8°C, valid for 1 year.

#### **Kit Components:**

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Kit Components	50T	100T	Storage	
Component A: Whey Protein Extract A	100mL	200mL	2-8°C	
Component B: Whey Protein Extract B	10mL	20mL	2-8°C	
Component C: Protein Centrifuge Tube C	3	6	2-8°C	
Component D: Protease Inhibitor Mixture	100µL	200µL	-20°C	

#### Note:

- 1. Protease inhibitors can also be stored at 2-8°C before use without open lid. Store at -20°C after opening the lid for use.
- The protease inhibitor is solid at 2-8°C. Take it out of the refrigerator and return to room 2. temperature or 37°C water bath for a short time. When it becomes liquid, centrifuge it to the bottom of the tube and then open the lid.
- 3. Please use the reagent as soon as possible after unpacking!

## Introduction:

Blood monocyte protein extraction kit is suitable for extracting total protein from monocytes in all kinds of whole blood samples. The extraction process is simple and convenient, and can be completed within 1h. The kit contains a mixture of protease inhibitors, which prevents the protease from degrading the protein, providing a guarantee for the extraction of high purity protein.

The protein extracted from this kit can be used for downstream protein research experiments such as Western Blotting, protein electrophoresis, immunoprecipitation, ELISA, transcriptional activity analysis, Gel shift gel blocking assay, enzyme activity determination, etc.

The proteins extracted by this kit are active proteins with natural protein conformation, which can be used for different downstream applications.

EDTA is not contained in this kit and is compatible with metal chelates and chromatography, among others.

#### **Self-prepared Reagents and Instruments:**

Centrifuge, oscillator, vortex mixer, pipette, refrigerator, ice box, PBS buffer, protein quantification kit, centrifuge tube, suction tip, disposable gloves.

#### **Protocols:**

#### First, use precautions

All reagents in the experiment must be pre-cooled; All utensils must be pre-cooled in a -20°C refrigerator. The sample must be kept at a low temperature during the whole process.

# Second, whey protein extraction



- 1. Take 1mL fresh milk, add 2µL protease inhibitor and mix well.
- 2. Centrifuge at 4°C, 3000×g, for 15min.
- 3. Discard the upper fat and get skimmed milk.
- Add 1mL of reagent A, mix well and let stand at 4°C for 15min. Centrifuge at 5000×g for 20min.
- 5. Centrifuge at room temperature, 8000-12000×g for 20min.
- 6. Transfer the supernatant into another clean centrifuge tube.
- 7. Centrifuge at room temperature, 8000-12000×g, for 20min.
- Add the supernatant into the protein centrifuge tube and centrifuge it at room temperature at 3000×g for 10-20min until only about 100µL of liquid remains in the tube.
- Carefully absorb the remaining liquid in the tube to another clean centrifuge tube. Add 100-200µL reagent B and mix well.
- 10. Add 100µL reagent B and mix well to obtain whey protein sample.

## Note:

- 1. This kit is intended for scientific research only and is not intended for diagnosis or treatment.
- 2. Centrifuge the reagent in the screw cap microreagent tube briefly before opening the cap. Centrifuge the cap and the liquid on the inner wall to the bottom of the tube to avoid reagent loss when opening the cap.
- 3. If the kit cannot be used up in a short time, the protease inhibitor mixture can not be added to the extraction solution all at once.
- 4. If the downstream experiment is to detect the enzyme activity of a specific protease or phosphatase, the extract can be done without the protease inhibitor or phosphatase inhibitor. Pay attention to the low temperature operation during the extraction process to shorten the centrifugation time.
- 5. It is prohibited to mix with other brands of reagents, otherwise the effect will be affected.
- 6. It is best to use disposable suction heads, tubes, bottles, or glassware, and reusable glassware must be washed and thoroughly removed of residual cleaners before use.
- 7. Avoid skin or mucous membranes coming into contact with the reagent.