Plasma/Serum Micro Exosome Protein Extraction Plus Kit

Cat #: BGT-OPU-09005

Size: 50T

Storage: Upon receipt, store the kit components according to the storage instruction. The shelf life is 12 months.

Product Description

This kit is based on self-developed homogeneous liquid magnetic beads that specifically capture exosomes without adsorbing impurities, achieving high purity and high recovery of exosomal proteins extraction. It has the advantages of easy operation, high purity, and high recovery, making it particularly suitable for exosomal proteins extraction from plasma and serum. The isolated exosomal proteins can be used for WB analysis, ELISA detection, and proteomic analysis.

Materials Supplied and Storage Conditions

Kit components	Size（50T）	Storage conditions
ExoMag Exosome Beads Plus	5 mL	4°C
Lysis Buffer	25 mL	Room temperature
Solution A	2 x 125 mL	4°C

Materials Required but Not Supplied

· High-speed freezing centrifuge

· Platform shaker

· 1.5 mL centrifuge tubes

· Magnetic Separation Rack

· 1 x Loading Buffer

Procedure

Sample Preprocessing

1. Cell Removal: Centrifuge the sample at 4°C, 300 g, for 5 minutes. Transfer the supernatant to a new centrifuge tube.

➢ **For cell-free samples, this step can be skipped.**

2. Cell and Cell Debris Removal: Centrifuge the sample at 4°C, 2000 g, for 10 minutes. Transfer the supernatant to a new centrifuge tube.

3. Large Particles Removal: Centrifuge the supernatant obtained from Step 2 at 4°C, 14000 g, for 30 minutes. Transfer the supernatant to a new centrifuge tube.

Exosomes Enrichment

1. Transfer 100 μL of ExoMag Exosome Beads Plus to a 1.5 mL centrifuge tube and place it on a Magnetic Separation Rack for 30 seconds. Discard the magnetic bead protection solution.

2. Add 500 μL of the preprocessed sample (If processing a sample volume lower than 500 μL, simply bring the volume of your samples up to 500 μL using Solution A) to the aforementioned ExoMag Exosome Beads Plus. Fix the tube on a platform shaker and incubate at 17 rpm, at room temperature, for 30 minutes.

➢ **In some samples, it is possible for the ExoMag Exosome Beads Plus to clump together during the binding of Exosomes. However, this clumping does not affect the separation efficiency, so you can proceed with confidence and continue using them.**

3. Place the above centrifuge tube on a Magnetic Separation Rack, let it stand for 30 seconds, and discard the supernatant.

4. Add 1 mL of Solution A, mix by inverting the tube, place it on the Magnetic Separation Rack, let it stand for 30 seconds, and discard the supernatant.

5. Repeat Step 4 two more times, retaining the ExoMag Exosome Beads Plus.

Exosomal proteins Extraction

1. For WB experiments:

a). Add 120 µL of 1x Loading Buffer to the ExoMag Exosome Beads Plus, vortex for 30 seconds, and then boil for 5 minutes.

b). Place the above tube on a Magnetic Separation Rack, let it stand for 30 seconds. Collect the supernatant, which can be directly used for WB analysis.

2. For proteomic experiments:

a). Add 500 µL of Lysis Buffer to the ExoMag Exosome Beads Plus, vortex for 30 seconds, and incubate on ice for 30 minutes.

b). Place the above tube on a Magnetic Separation Rack, let it stand for 30 seconds, and transfer the supernatant to a new 1.5 mL centrifuge tube for storage at -80°C.

Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.