ExoFast™ Exosome Isolation Reagent from cell culture media

Catalog Number: D030

Content and Storage

Component	Amount	Shipping Condition	Storage Condition
ExoFast™ Exosome Isolation Reagent from cell culture media	50 mL	Room temperature	2~8°C for one year

Product Description

Exosomes are small vesicles (30–120 nm) containing protein and RNA that are secreted by various types of cells in culture, and found in abundance in body fluids including blood, saliva, urine, and breast milk. Exosomes are thought to function as intercellular messengers, signaling macromolecules between specific cells, however, their formation, and biological pathways in which they are involved remain incompletely understood.
The biological study of exosome function and trafficking requires the isolation of intact exosomes, but the current methods used are tedious, non-specific, and difficult. The ExoFast™ Exosome Isolation Reagent from cell culture media provides a simple and reliable method of concentrating intact exosomes from cell culture media samples. By tying up water molecules, the ExoFast™ Exosome Isolation Reagent forces less-soluble components (i.e. exosomes) out of solution, allowing them to be collected after brief, low-speed centrifugation.

Protocol

Note: To ensure that isolated exosomes originate from your cells of interest, culture the cells with exosome depleted fetal bovine serum (FBS), because normal FBS contains extremely high levels of exosomes that will contaminate the cell derived exosomes. If you cannot obtain exosome depleted FBS, certain cell lines can be grown for up to 12 hours in media without FBS.

1. Collect cell culture media and centrifuge at 3000 × g for 15 minutes to remove cells and debris.
2. Transfer the supernatant containing the cell-free culture media to a new tube without disturbing the pellet.
3. Add 0.5 volumes of the ExoFast™ Exosome Isolation Reagent to the clarified culture media. For example, for 5 mL of cell culture media, add 2.5 mL of the ExoFast™ Exosome Isolation Reagent.
4. Mix the culture media/reagent mixture well by inverting or vortexing until there is a homogenous solution, and incubate at 2~8°C overnight.
5. After incubation, centrifuge the samples at 10,000 × g for 30 min at 4°C.
6. Aspirate and discard the supernatant. Exosomes are contained in a beige or white pellet at the bottom of the tube (not visible in most cases).
7. Resuspend the pellet in a convenient volume of 1X PBS or similar buffer.
8. Once the pellet is resuspended, the exosomes are ready for downstream analysis or further purification through affinity methods.
   Keep isolated exosomes at 2~8°C for up to 1 week, or at -20°C for long-term storage.