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Plasma Exosome Isolation

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ABSTRACT

This protocol details methods for the isolation of small extracellular vesicles from plasma.

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exosome, isolation, plasma, EV, extracellular vesicles, ASAPCRN

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OWNERSHIP HISTORY

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MATERIALS TEXT

Materials

- 13mm sterile syringe filters with a 0.8 µm Supor (PES) membrane
- 13mm sterile syringe filters with 0.2 mm Supor (PES) membrane
- 1X PBS

Equipment

- Ultracentrifuge

SAFETY WARNINGS

Please refer to the Safety Data Sheets (SDS) for health and environmental hazards.

BEFORE STARTING

Keep samples **On ice** during the entire procedure!

Plasma Exosome Isolation 2h 30m

1 

Incubate plasma samples (starting volume: 1-1.5ml) **On ice** for complete thaw.

2 Filter samples through a 13mm sterile syringe filters with a **0.8 µm** Supor (PES) membrane.

3 

Centrifuge at **20000 x g, 4°C, 01:00:00** to remove large extracellular vesicles.

4 Collect the supernatant and filter it through 13mm sterile syringe filters with **0.2 mm** Supor (PES) membrane.

5 

Centrifuge at **100000 x g, 4°C, 01:00:00** to pellet small extracellular vesicles.

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6

Remove the supernatant, resuspend the pellet in **1 mL 1X PBS** and repeat the previous step (repeated again in the next step for convenience).

This step is optional, according the final application of the pellet.

7

Centrifuge at **100000 x g, 4°C, 01:00:00** to pellet small extracellular vesicles.

8 Process the pellet according to the type of analysis.

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