

VEX Exosome Isolation Reagent (from serum)

R602



Version 8.1

Vazyme biotech co., Ltd.

Introduction

VEX Exosome Isolation Reagent (from serum) is specially designed for isolating the exosome, containing RNA and protein secreted by various types of cells, from serum. Compared with the traditional ultra-speed centrifugation, the simple low-speed centrifugation involved in this reagent makes the exosome less affected by centrifugal stress, therefore more intact in morphology. Meanwhile, VEX Exosome Isolation Reagent can save the experiment time, requires less input amount of sample, and with high isolation efficiency. The exosomes obtained by this product can be applied to a variety of downstream applications, such as protein research, RNA analysis, high-throughput sequencing, etc.

Components

Components	R602
VEX Exosome Isolation Reagent (from serum)	10 ml

Storage

Store at 2 - 8°C; transport at 2 - 8°C or room temperature.

Quality Control

Function assay: obtain 1 ml of fresh serum (or frozen serum stored at -70°C, never thawed before), use VEX Exosome Isolation Reagent (from serum) to isolate exosome, from which followed by a RNA isolation, and lastly, take 2 - 5 ng of that RNA as template to detect expressions of two small RNA by qPCR.

Workflow

1. Serum preparation

- (1) Set the collected whole blood(without anticoagulant) still at room temperature 1 - 2 hour(s) or at 2 - 8°C overnight until blood coagulated.
- (2) Centrifuge at 4°C, 1000 - 2,000 x g for 5 - 10 mins, gently aspirate the supernatant (serum, transparent yellow liquid at the upper layer) into a new centrifuge tube without disturbing the cell component.
- (3) This collected serum can be directly applied to downstream experiments, or stored at - 70°C after splitting packed.

2. Sample preparation

- (1) Place the serum on ice. If the sample is frozen, please thaw in 25°C water bath until it totally becomes liquid, and place it on ice.
- (2) Centrifuge at room temperature, 2,000 x g for 30 mins to remove cells and debris.
- (3) Gently aspirate the supernatant into a new centrifuge tube without disturbing the sediment and residual liquid, place on ice till use.

3. Exosome extraction

- (1) Transfer a required volume of serum into a new centrifuge tube and add 1/5 volumes of the VEX Exosome Isolation Reagent (from serum).

For example:

Serum volume	Reagent volume to be added
1 ml	0.2 ml
2 ml	0.4 ml

- (2) Gently invert or pipette up and down for several times to mix well until there is a homogenous solution.

* The solution should be cloudy.

- (3) Stand the mixture at 2 - 8°C for 30 mins for incubation.



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- (4) Centrifuge at room temperature, 10,000 × g for 5 mins.
- (5) Carefully and thoroughly discard the supernatant by pipette to obtain the exosome contained in sediment.
- (6) Resuspend the exosome sediment by 1 X PBS or directly apply to subsequent experiment.

* If necessary, store the exosome at 2 - 8°C for up to 1 week, or -20°C/-70°C for long term.

Troubleshooting

◇ How much sample volume does a single experiment need?

At least 0.5 ml, because the serum volume less than that will fail to extract sufficient exosome to meet the following experiment demands.

◇ How to apply this isolated exosome to downstream experiment?

The isolated exosome sediment can be resuspend by 1 X PBS or directly by the reagent subsequently used in the downstream experiment, like some lysis buffer.

◇ How to resuspend the exosome sediment?

The isolated exosome sediment can be resuspend by 1X PBS or directly by the reagent subsequently used in the downstream experiment. If downstream experiment do not require exosome to remain intact, low speed homogenizer could be used in resuspension procedure.

◇ Other notices

The blood component is complex. For some difficult-to-isolate samples, such as hyperlipidemia, the exosome extraction and subsequent treatment should be adjusted according to the actual situation.



ISO 9001: 2015