

Exosome

Exosomes are nano-sized biovesicles released into surrounding body fluids following the fusion of multivesicular bodies with the plasma membrane. They carry cell-specific cargos of proteins, lipids, and genetic materials, and can selectively be taken up by neighboring or distant cells, thereby reprogramming the recipient cells' biology. **Exosomes** are known to play a crucial role in the body's physiological and pathological processes, and have been detected in almost all body fluids, including blood, urine, saliva, breast milk, cerebrospinal fluid, semen, amniotic fluid, and ascites.

Exosomes are currently the most well-defined type of extracellular vesicles (EVs), with distinct differences in their biogenesis, release pathways, size, content, and function compared to microvesicles and apoptotic bodies

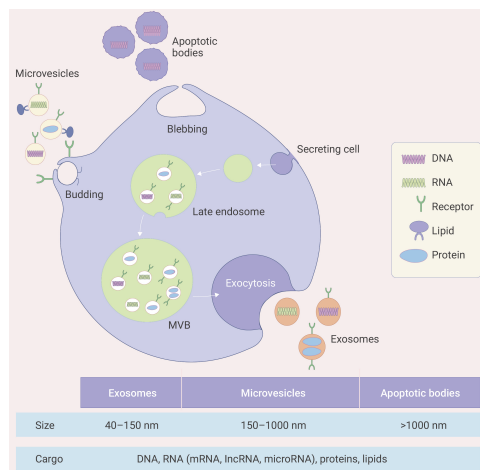


Figure 1. Classification of extracellular vesicles (EVs)

Cat. No.: HY-L072

Exosomes Compound Library

The understanding of the role of exosomes in disease is still evolving, and the volume of research investigating their potential for diagnosis and treatment of various pathologies has significantly grown. MCE offers a distinctive set of 40+ compounds that can either inhibit or stimulate exosome secretion or biosynthesis. The MCE Exosomes Compound Library is a valuable resource for researchers studying exosomes.

Description & Advantages

- A unique collection of **40+** exosomes secretion-related small molecules.
- A useful tool for drug discovery of exosomes secretion-related diseases.
- Bioactivity and safety confirmed by preclinical research and clinical trials. Some inhibitors have been approved by FDA.
- Structurally diverse, medicinally active, and cell permeable.
- More detailed compound information with structure, IC₅₀, and brief introduction.
- NMR and HPLC validated to ensure high purity and quality.
- All compounds are in stock and continuously updated.

Product Details

Container: 96- or 384-well Plate with Peelable Foil Seal;
96-well Format Sample Storage Tube With Screw Cap
and Optional 2D Barcode

Storage: Powder: -20°C: 3 years 4°C: 2 years;

In solvent: -80°C: 2 year

96-well Format Sample Storage Tube



96-/384- well plate

Exosome Isolation, Purification and Detection

Cumulative evidence has revealed that exosomes can play an exceptional role in diagnostics and therapeutics of multiple diseases. An efficient, simple, and affordable method to isolate intact and pure exosomes is crucial to carrying out relevant pathways or disease research.

Herein, we summarized the commonly used exosome isolation techniques.

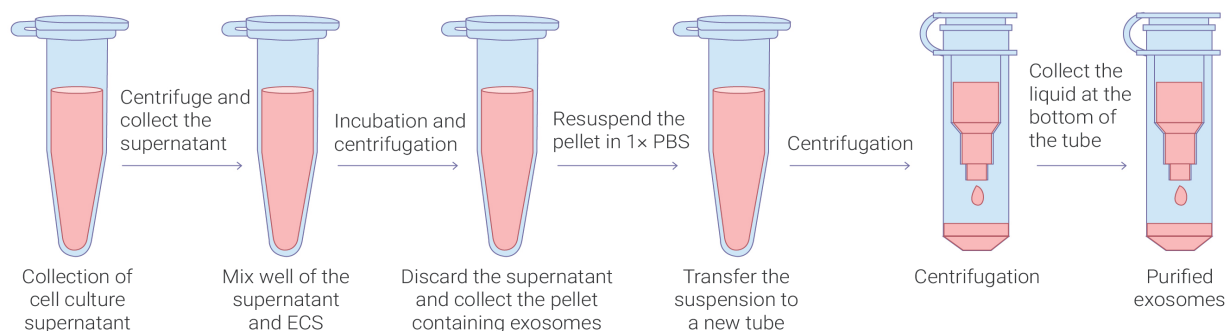


Figure 2. Exosome isolation procedures

Strategies of isolation and purification

Density gradient centrifugation: Components with disparity of size and density Possess various sediment speed.

Ultrafiltration: Particles with various size and molecular weight.

Immunoaffinity: Based on interaction between antibodies and specific membrane proteins of exosomes.

Polymer precipitation: The influence of exosomal solubility or dispersibility under the high hydrophilic polymers.

Size exclusion chromatography (SEC): Particles with various size and molecular weight

MCE provides a simple and effective method to isolate and purify intact exosomes from cell culture media, and plasma/serum, and other body fluids. Combined with Exosome Protein Detection Kit (CD63&TSG101), it is suitable to detect the isolated exosomes.

Isolation and purification of exosome	HY-K1062 (20T) Exosome Isolation and Purification Kit (from cell culture media)
	HY-K1063 (30T) Exosome Isolation and Purification Kit (from plasma and serum)
	HY-K1065 (30T) Exosome Isolation and Purification Kit (from body fluids)
Detection of exosome	HY-K1064 (5T) Exosome Protein Detection Kit (CD63 & TSG101)

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