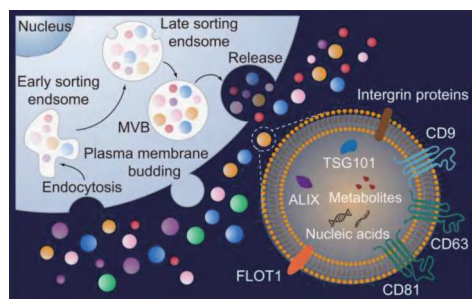


# EXODUS

## Extracellular Vesicle Subtype Isolation Solutions

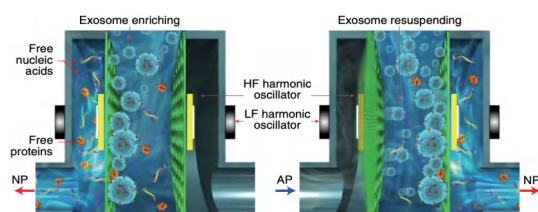
### What are extracellular vesicle subtypes?



Extracellular vesicles (EVs) are membrane-bound small vesicles (30 nm-1  $\mu$ m) released by cells into the extracellular matrix, playing a crucial role in intercellular communication and physiological regulation. EVs are primarily classified into two major categories or subtypes: exosomes (30-150 nm) and microvesicles (100-1000 nm). Studies on EVs are mainly focused on <150 nm exosomes, while the characteristics and functions of medium and large EVs (>150 nm) are relatively unexplored. This is mainly due to the lack of methods for size-based separation of EV subtypes. Establishing new isolation methods will help researchers better understand the origin, composition, functions, and critical roles of EV subtypes in the development of diseases.

### EXODUS isolation principle for EV subtypes

A negative pressure oscillation system (NPO) combined with a double-coupled harmonic oscillation system (HO) acts on the nanofiltration device to rapidly remove impurities, such as free nucleic acids and proteins in the sample, to obtain ultra-pure exosomes. The isolation of extracellular vesicle subtypes based on their size is achieved by replacing the nano-membranes with different pore sizes in the EXODUS-sub device.

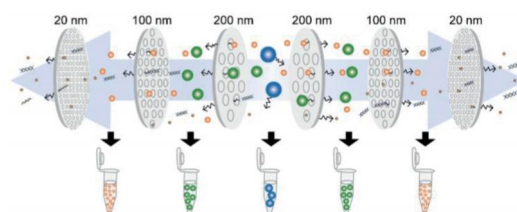


EXODUS isolation principle illustration

Nature Methods.2021,18(2):212-218



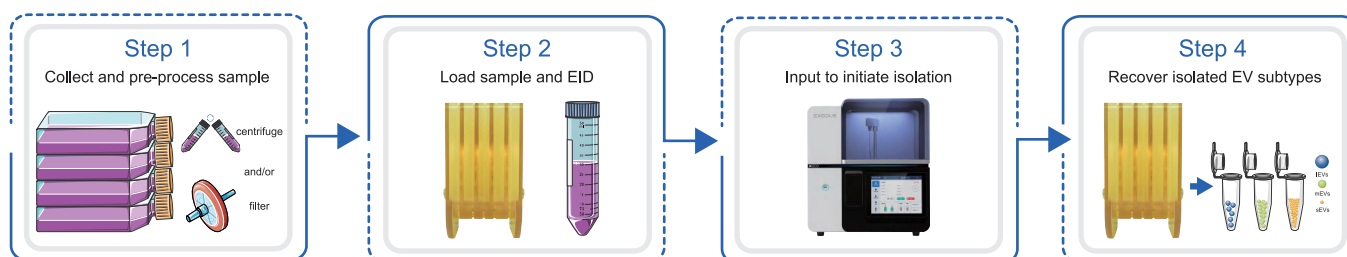
EXODUS-sub subtype isolation device



Working principle diagram of EXODUS-sub subtype isolation device

Sci Adv.2023,9(11):1137-1144.

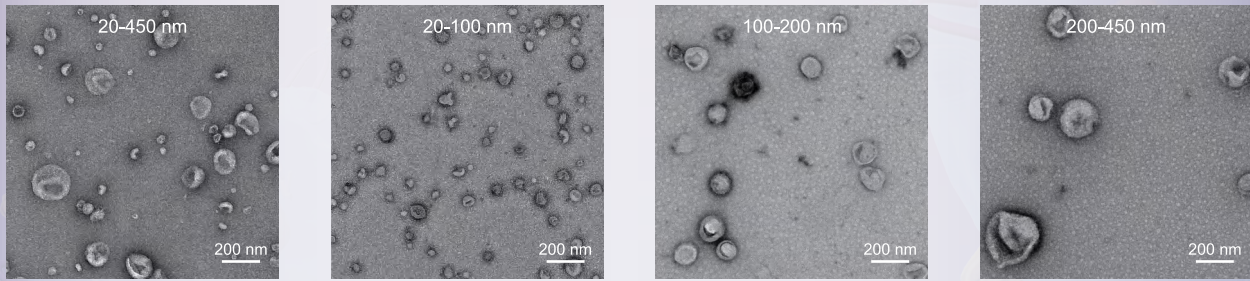
### EXODUS isolation procedure for EV subtypes



# Extracellular Vesicle Subtype Isolation Solutions

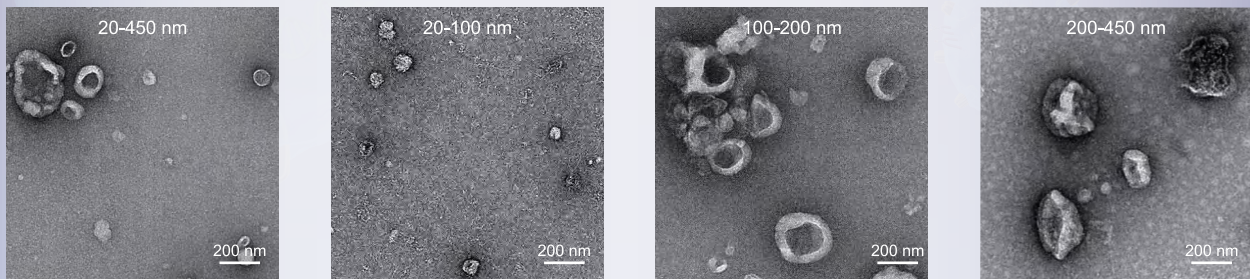
## EXODUS EV subtype isolation results

### Extracellular vesicle subtypes in urine



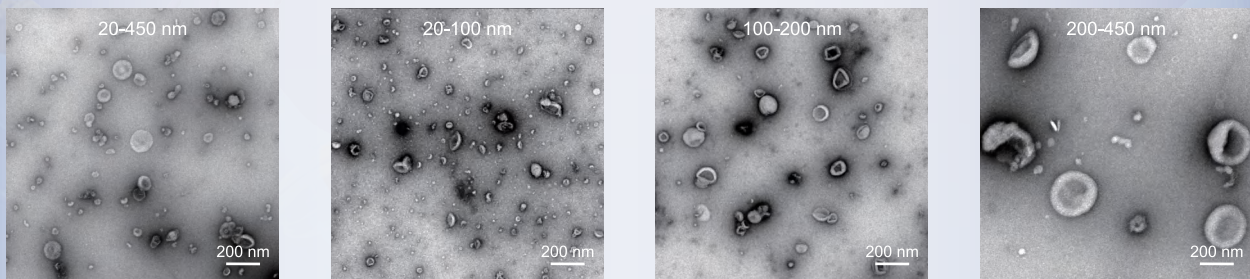
Nature Methods.2021,18(2):212-218.

### Extracellular vesicle subtypes in tear



Sci Adv.2023,9(11):1137-1144.

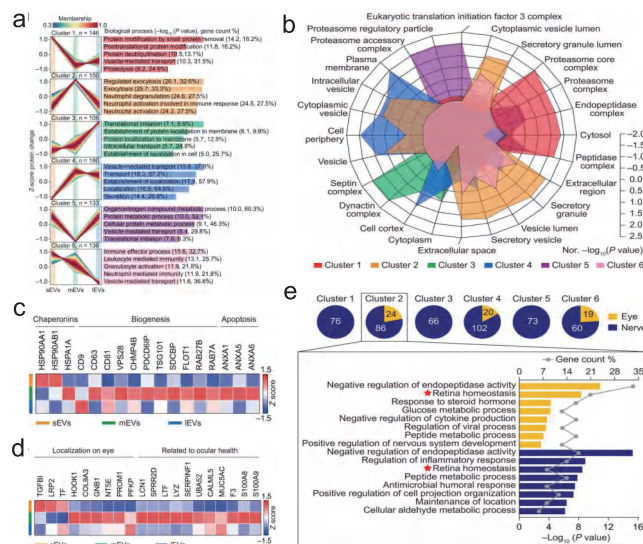
### Extracellular vesicle subtypes in MSCs culture medium



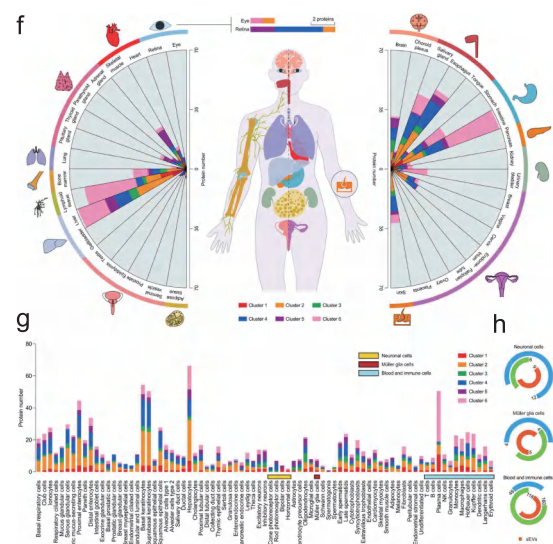
Unpublished.

## Applications of EXODUS in isolating EV subtypes

### Composition and biological functions of tear EV subtypes



### Origin and cellular source of tear EV subtypes proteins



Sci Adv.2023,9(11):1137-1144.

Product specifications may change without notice,  
based on the latest technical data and test results.

service@exodus-bio.com  
160 E Tasman Dr., San Jose, CA 95134, United States