

Despite being initially characterized as cellular garbage, extracellular vesicles (EVs) have been observed in nearly all biologic fluids and tissues and have rapidly gained scientific attention due to their ability to ferry protein and nucleic acid cargo between cells. EVs present a breadth of possibilities for both the development of clinical diagnostics and for EV-based drug and therapeutic delivery.

Echelon Biosciences' **ExoClean** and **ExoTracker** kits offer researchers a simple system for labeling and purifying EVs in a time and cost-effective manner.

ExoClean and ExoTracker - General Features

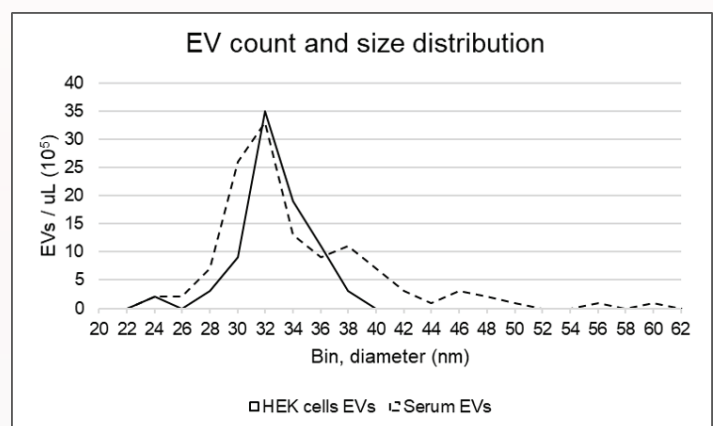
- No ultracentrifugation or specialized equipment required
- Purify EVs in < 2 hours
- Membrane and RNA specific labels
- Fluorophores are standard green and red wavelengths
- Validated with cell culture and tissue samples
- Kits contain reagents for 20 samples
- Labeling, purification, and treatments can be performed same day
- Samples are amenable for multiple downstream analyses

Particle Counting

The ExoClean system also allows for rapid downstream analysis of the size and integrity of EVs.

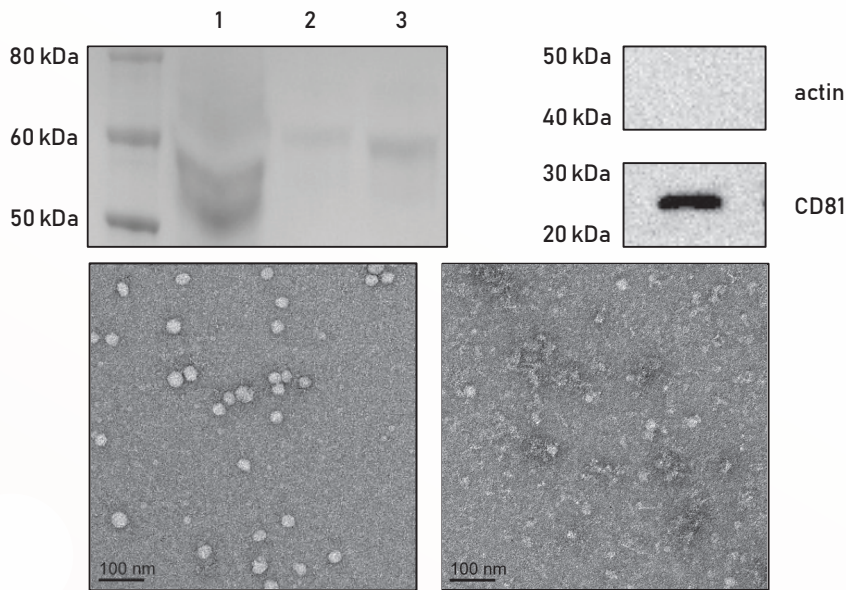
Ultracentrifugation and precipitation techniques alone can lead to damaged EVs and contaminating protein aggregates that can obscure nanoparticle tracking analysis (NTA).

ExoClean alleviates this concern and is capable of providing EV samples that are largely uniform in size.

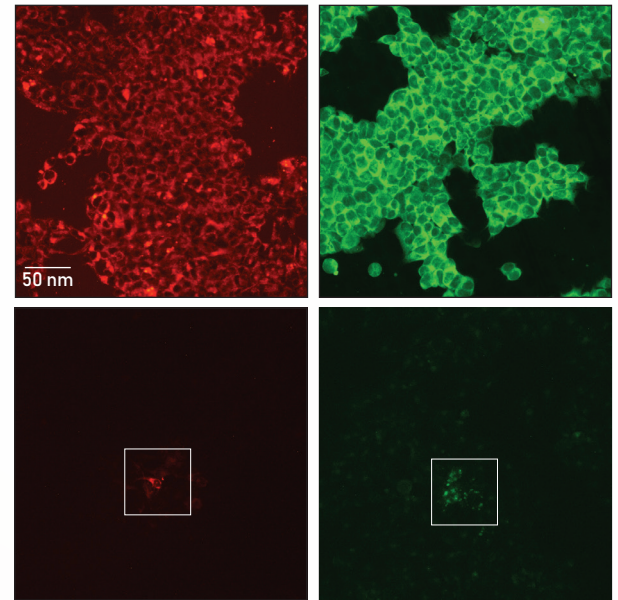


ExoTracker and ExoClean kits allow for quick, easy labeling and purification of EVs.

Echelon Biosciences' kits eliminate the time, cost, and contamination concerns associated with traditional techniques by using a simple two-step purification system following labeling with membrane or RNA specific fluorescent labels.



Coomassie stained gel showing crude (1) and purified (2) EV fractions. (3) shows removed contaminants. Western blots of (2) show positive and negative controls for EV purity using actin and CD81. Electron microscopy images from fractions (2) and (3) showing purified EVs and removed contaminants.



Fluorescence images showing labeled HEK cells (top) and cells treated with labeled EVs (bottom). Red channel = membrane label
Green channel = RNA label

Products	Catalog Number	Products	Catalog Number
EV Kits		Lipid Quantification Assays	
ExoClean	K-4300a	PI(3)P Mass ELISA	K-3300
ExoTracker - Membrane	K-4300b	PI(3,4)P2 Mass ELISA	K-3800
ExoTracker - RNA	K-4300c	PI(4,5)P2 Mass ELISA	K-4500
ExoTracker - Total	K-4300d	PIP3 Mass ELISA	K-2500s
Lipid-Protein Interaction Tools		Lipids	
PIP Strip, PIP Array	P-6001, P-6100	PI(3)P	P-3008, P-3016
Membrane Strip, Membrane Array	P-6002, P-6003	PI(4)P	P-4008, P-4016
		PI(5)P	P-5008, P-5016
PIP Beads	P-B00S, P-B003a P-B045a, P-B345a	PI(3,4)P2	P-3408, P-3416
		PI(3,5)P2	P-3508, P-3516
PolyPIPosomes	Y-P000, Y-P003 Y-P045, Y-P039	PI(4,5)P2	P-4508, P-4516
		PI(3,4,5)P3	P-3908, P-3916

