



# High-Purity Tetraspanin/EpCAM-Based Exosome Isolation for Multi- Omics Liquid Biopsy Research

Our comprehensive exosome pipeline provides end-to-end solutions from isolation to quantification. Using Tetraspanin/EpCAM-based immunoprecipitation with optimized magnetic beads, we deliver high-purity, high-yield exosome isolation from plasma, serum, or cell culture media — with downstream compatibility for PCR, NGS, flow cytometry, ELISA, and mass spectrometry.

## TETRASPANIN/EPCAM-BASED ISOLATION

Immunoprecipitation with optimized 3 $\mu$ m magnetic beads for targeted exosome capture.

- Tetraspanin(CD9/CD63/CD81) or EpCAM-based capture options
- Compatible with plasma, serum, and cell culture media
- 50–150 nm exosome size range

## RAPID WORKFLOW

Complete isolation and analysis in under 5 hours.

- <2 hours reaction time for bead-based isolation
- ~4.5 hours total for miRNA or ELISA quantification
- No overnight incubation required

## HIGH PERFORMANCE

Industry-leading yield, purity, and reproducibility metrics.

- $\geq 90\%$  recovery yield vs  $\leq 35\text{--}70\%$  for competitors
- $>99.9\%$  purity vs  $>95\%$  for competitors
- $R^2 \geq 0.99$  linearity, CV  $<5\%$  precision

## BROAD COMPATIBILITY

Downstream support for all major analytical platforms.

- PCR and NGS for nucleic acid analysis
- Flow cytometry for surface marker characterization
- Mass spectrometry for proteomic profiling

## KEY PERFORMANCE

### RECOVERY

**$\geq 90\%$**

vs  $\leq 35\text{--}70\%$  competitors

### PURITY

**$>99.9\%$**

vs  $>95\%$  competitors

### PRECISION

**CV  $<5\%$**

~1% typical

## Competitive Comparison

Parameter	Genovo	Vendor S	Vendor D
Sample Type	Isolated EV, Plasma, Serum, Culture media	Isolated EV	Isolated EV
Reaction Time	<2 hours	Overnight	Overnight (16–24 hrs)
Yield (Recovery)	≥90%	≤35%	≤70%
Purity	>99.9%	>95%	>95%
Linearity	$R^2 \geq 0.99$	$R^2 \geq 0.95$	$R^2 = 0.95$
Precision (CV)	<5% (~1%)	n/a	4.5%
Compatibility	PCR, NGS, Flow cytometry, MS, ELISA	Flow cytometry	Flow cytometry

## OPTIMIZED QUANTIFICATION ASSAY WORKFLOW

### ON-PLATE ELISA QUANTIFICATION

~4.5 hours total

Plasma Collection (200µL) → Tetraspanin/EpCAM+ Exosome Isolation → miRNA Extraction → RT-qPCR → Data Analysis

### ON-BEADS ELISA QUANTIFICATION

~4.5 hours total

Plasma Collection → Tetraspanin/EpCAM+ Exosome Isolation → Anti-Tetraspanin/EpCAM Primary Ab → HRP-conjugated 2nd Ab → Chemifluorescent Detection

## KIT SPECIFICATIONS

Sample Type	Isolated EV, Plasma, Serum, Culture media
Exosome Size	50–150 nm
Isolation Method	Bead-based Tetraspanin(CD9/CD63/CD81) or EpCAM
Reaction Time	<2 hours
Yield (Recovery)	≥90%
Purity	>99.9%
Linearity	$R^2 \geq 0.99$
Precision	CV <5% (~1%)
Compatibility	PCR, NGS, flow cytometry, mass spec, ELISA