

Plasma/Serum Exosome Purification Kit

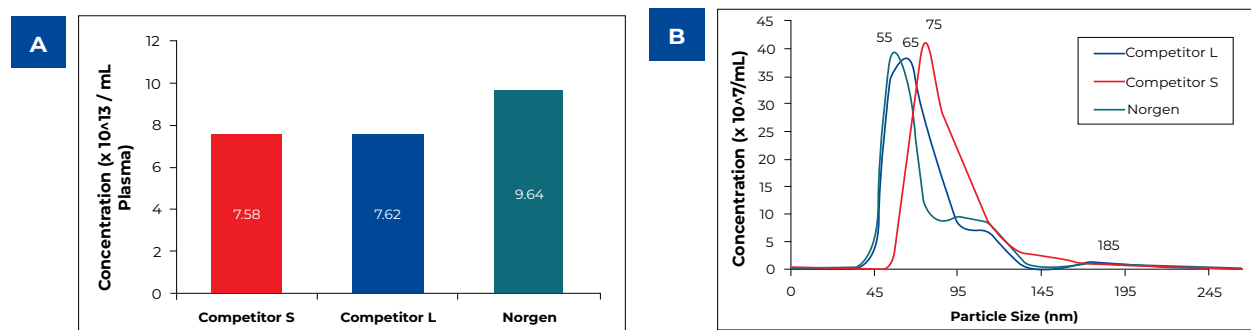
CAT. 57400, 57500, 57600

QUICK AND EASY PROTOCOL FOR THE PURIFICATION
OF EXOSOMES FROM DIFFERENT PLASMA/SERUM
SAMPLE VOLUMES



- ✓ Purification and enrichment of intact exosomes from plasma, serum, urine, cell culture media and saliva in less than 30 minutes.
- ✓ Versatile sample input ranging from 50 μ L to 10 mL
- ✓ Exosome purification is based on Norgen's proprietary resin through exosomes' surface proteins.
- ✓ No precipitation reagents, overnight incubation, protease or coagulant treatments required
- ✓ No time-consuming ultracentrifugation, filtration or special syringes required
- ✓ Purify intact exosomes with a size ranging from 40-200 nm depending on sample input type
- ✓ Purified exosomes are compatible with functional studies.

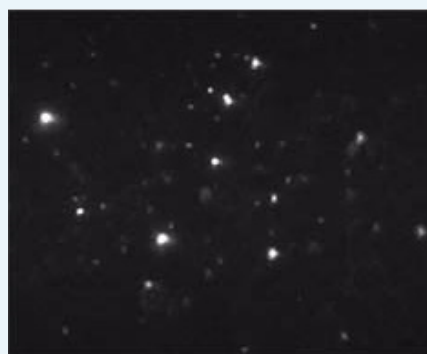
Advantages You Will Bring to Your Lab



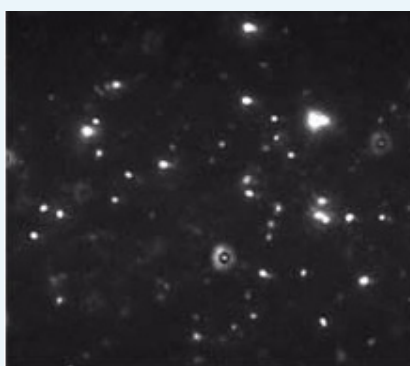
HIGHER EXOSOME YIELD COMPARED TO THE COMPETITION

Figure 1. Comparing exosome yields from different purification methods. Intact exosomes were purified from 1 mL plasma using Norgen's Plasma/Serum Exosome Purification Mini Kit (Cat# 57400), Competitor S's kit and Competitor L's kit (from plasma). Exosomes purified using Norgen's kit were resuspended in 200 μ L of Norgen's ExoR buffer, diluted 1:1,000 and visualized on the NanoSight LM10 instrument. The analysis shows that Norgen's kit isolated 55 nm exosomes with a recovery of 9.64×10^{13} particles/mL plasma. No impurities were found to be contaminating the exosomes purified using Norgen's Plasma/Serum Exosome Purification Mini Kit. Additionally, exosomes with a broader size range covering from 50 nm - 150 nm were purified from 1 mL plasma with a higher concentration compared to the other two methods.

Plasma-1mL Input

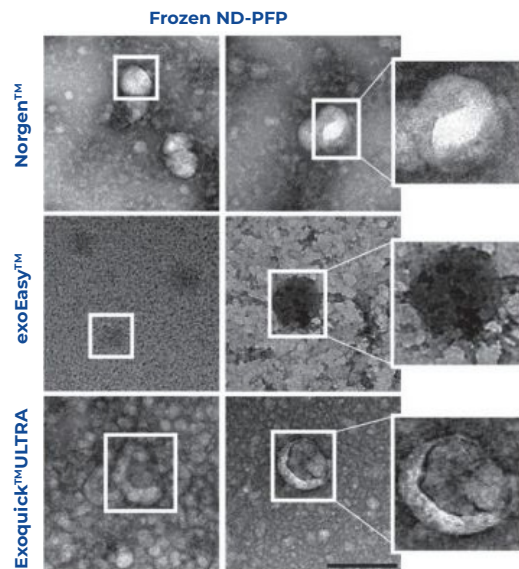


Plasma-10mL Input



PURIFICATION OF EXOSOMES IS LINEAR FROM 1ML AND 10ML PLASMA INPUT

Figure 2. NanoSight data showing intact exosomes purified from 1 mL and 10 mL plasma. Intact exosomes were purified from 1 mL plasma using Norgen's Plasma/Serum Exosome Purification Mini Kit (Cat. 57400) and from 10 mL plasma using Norgen's Plasma/Serum Exosome Purification Maxi Kit (Cat. 57600). Exosomes purified using Norgen's Mini kit were resuspended in 200 μ L of Norgen's ExoR buffer whereas exosomes purified using Norgen's Maxi kit were resuspended in 600 μ L Norgen's ExoR buffer, diluted 1:1,000 and visualized on the NanoSight LM10 instrument. The analysis shows that the purification of exosomes is linear as 4.04×10^{10} particles/mL was recovered from 1 mL plasma whereas 2.95×10^{11} particles/mL was recovered from 10 mL plasma.



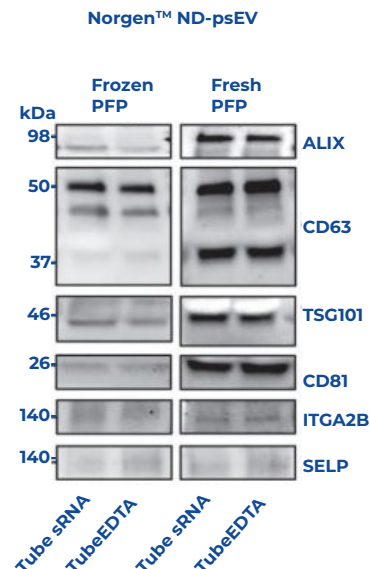
COMPARISON OF THREE COMMERCIAL KITS IN INDEPENDENT RESEARCH

Figure 3. TEM images of small EVs obtained from the same non disease frozen platelet free plasma (ND-frozen PFP) sample. Sample isolated with three commercial kits; representatives of >10 images are shown (scale bar, 200 nm).

(Human myeloma cell- and plasma-derived extracellular vesicles contribute to functional regulation of stromal cells. Journal Proteomics. 2021. Reale, A., Carmichael, I., Xu, R., Mithraprabhu, S., Khong, T., Chen, M., Fang, H., Savvidou, I., Ramachandran, M., Bingham, N. and Simpson, R.J.).

Technical Specifications

Description	Specifications
Plasma/Serum Input (Cat. 57400)	50 µL - 1 mL
Plasma/Serum Input (Cat. 57500)	1 mL - 4 mL
Plasma/Serum Input (Cat. 57600)	4 mL - 10 mL
Size of Exosomes Purified	40 nm - 150 nm
Elution Volume	Variable depending on the plasma/serum input volume
Time to Complete 10 Purifications	15 - 30 min



PLASMA SMALL EVS (PSEV) ISOLATED WITH THE NORGEN BIOTEK KIT SHOWED EXOSOMAL MARKERS IN PROTEIN ANALYSIS

Figure 4. Western blot analysis of plasma small EVs (psEV). Plasma small EVs (psEV) were isolated with the Norgen Biotek kit (#57400) and lysates of psEV derived from frozen Non-disease platelet free plasma (ND-PFP) are compared to lysates of psEV derived from fresh platelet free plasma (PFP) using EV markers (TSG101, CD81, ALIX, CD63) and platelet markers (ITGA2B and SELP). Cell free RNA BCT-Streck (sRNA collection tubes) and EDTA tubes are also compared (n= 3).

(Human myeloma cell- and plasma-derived extracellular vesicles contribute to functional regulation of stromal cells. Journal Proteomics. 2021. Reale, A., Carmichael, I., Xu, R., Mithraprabhu, S., Khong, T., Chen, M., Fang, H., Savvidou, I., Ramachandran, M., Bingham, N. and Simpson, R.J.).

Select Publications

Blanco, Jorge C. G., et al. “Enterovirus D68 Infection in Cotton Rats Results in Systemic Inflammation with Detectable Viremia Associated with Extracellular Vesicle and Neurologic Disease.” Scientific Reports, vol. 15, no. 1, Feb. 2025, p. 6514. www.nature.com, https://doi.org/10.1038/s41598-025-89447-6

Ordering Information

Description	Preps	Cat. #
Plasma/Serum Exosome Purification Kit Mini	50 Prep	57400
Plasma/Serum Exosome Purification Kit Midi	25 Prep	57500
Plasma/Serum Exosome Purification Kit Maxi	15 Prep	57600

Related Products

Description	Prep Size	Cat. #
Urine Exosome Purification Mini Kit	50 Prep	57700
Exosomal RNA Isolation Kit	Variable	58000
Norgen Next Generation Sequencing Services	Call 1-866-Norgenb or Visit norgenbiotech.com	

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