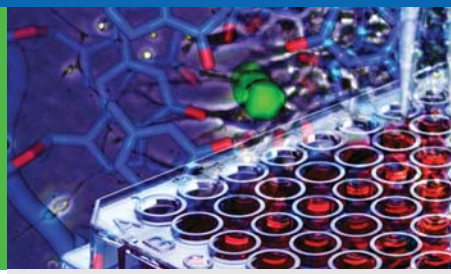
SBI System Biosciences
Accelerating discoveries through innovations

Biogenuix®

microRNA Research

ExoQuick™ Exosome precipitation

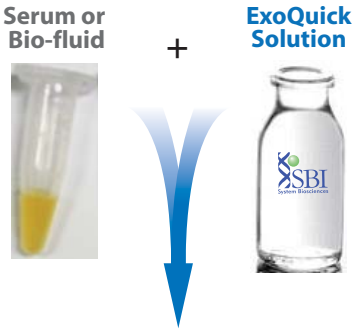
Simple one-step solution for isolating exosomes from biofluids
Robust method for protein and microRNA biomarker discoveries



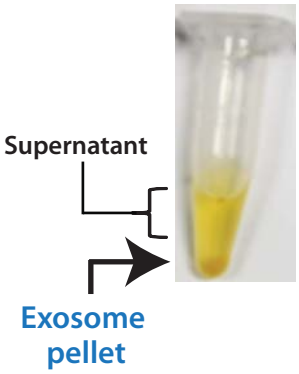
Exosomes are 40 –100 nm membrane vesicles secreted by most cell types *in vivo* and *in vitro*. Exosomes are found in blood, urine, amniotic fluid, malignant ascite fluids and contain distinct subsets of microRNAs depending upon the tumor from which they are secreted. SBI's ExoQuick exosome precipitation reagent makes microRNA biomarker discovery simple, reliable and quantitative. Enrich for circulating exosomal microRNAs with ExoQuick and accurately profile them using SBI's SeraMir™ or QuantiMir™ qPCR arrays.

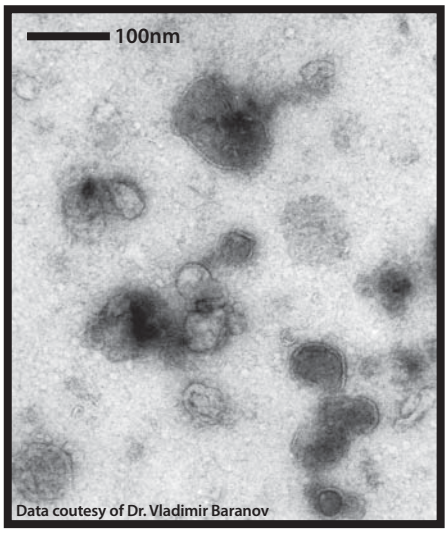
Isolate exosomes with ease

- **No time-consuming ultracentrifugation**
- **Less expensive than costly DynaBeads**
- **More effective than any other method**
- **Use as little as 100µl of serum or bio-fluid**



Simple one-step precipitation



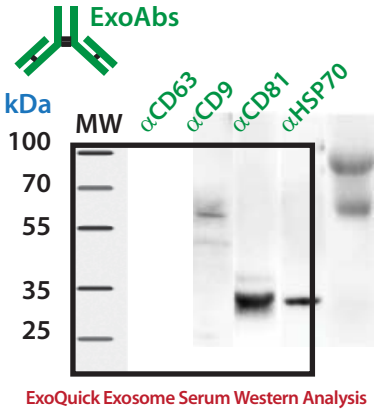


Highlights

- Exosomes are released from tumors in high abundance
- Exosome cargo reflects the origin and physiological state of the source cells
- MicroRNAs are found in high abundance in circulating exosomes
- Precipitate exosomes from patient biofluids easily
- Discover novel disease-specific biomarkers
- ExoQuick works with serum, plasma, and tumor ascites

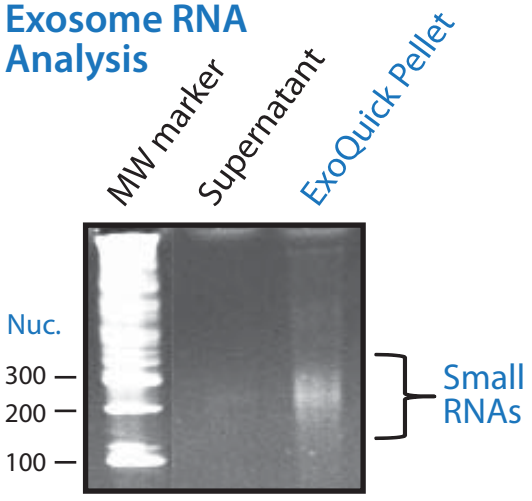
Discover MicroRNA and Protein Biomarkers in Patient Samples

Exosome Marker Protein Analysis



ExoQuick Exosome Serum Western Analysis

Exosome RNA Analysis



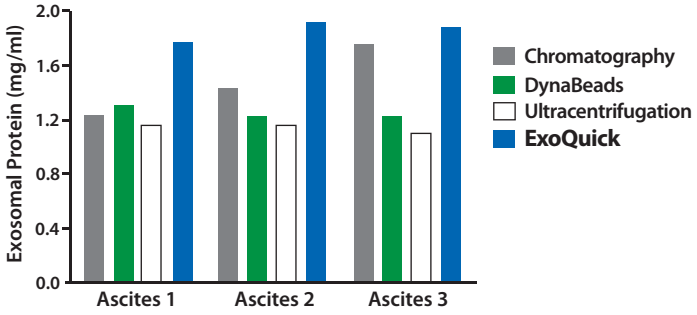
15% PA RNA Gel - SYBR green stain

www.systembio.com/exoquick

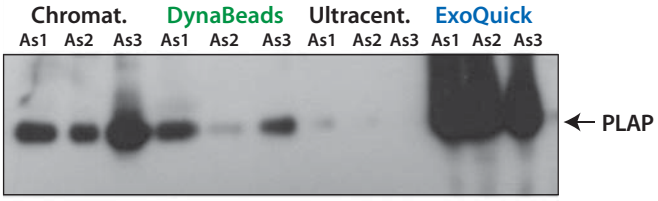
ExoQuick™ Exosome precipitation solution

Isolate Exosomes from Ovarian Tumor Ascites fluid

Enrich for more exosomal proteins

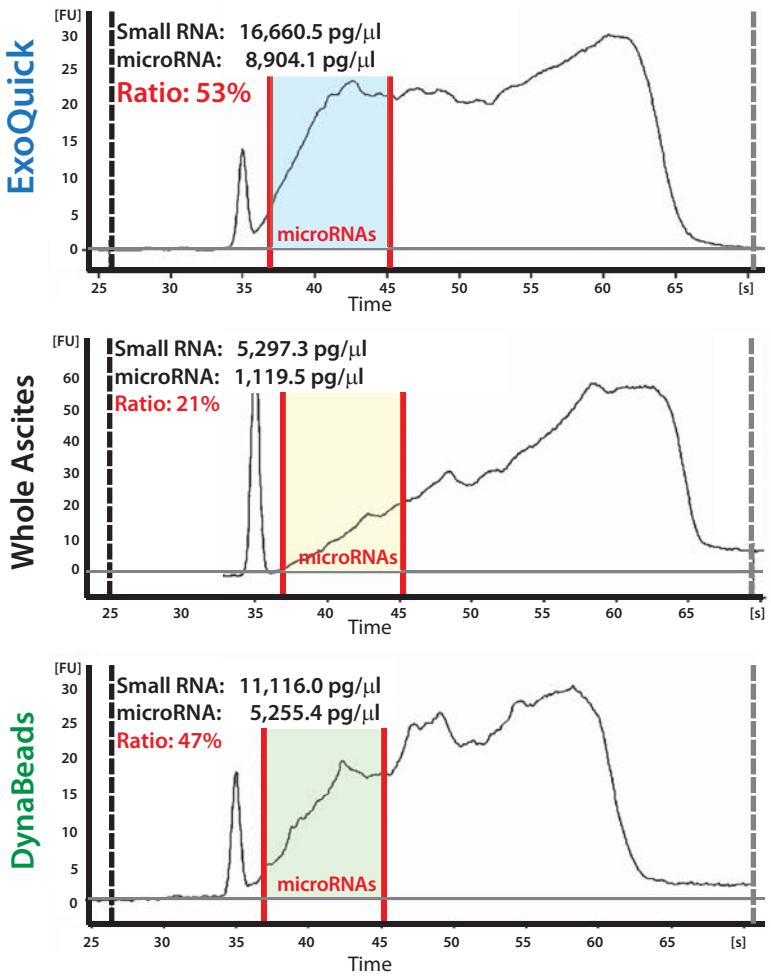


Placental Alkaline Phosphatase Biomarker Enrichment

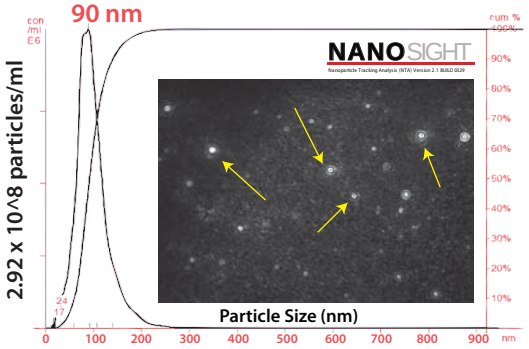


While each method purifies exosomal material, circulating exosomes isolated by ExoQuick precipitation produces exosomal RNA and protein with greater purity and quantity than chromatography, ultracentrifugation, and anti-EpCAM magnetic DynaBeads. This will enhance the sensitivity and accuracy of down-stream analyses, such as qRT-PCR profiling of microRNA and mass spectrometric and electrophoretic analyses of exosomal proteins. Identify new diagnostic and prognostic biomarkers with ExoQuick.

Isolate more exosomal microRNAs



NanoSight Particle Analysis



Tight particle size distribution with average exosome size measured at 90nm.

Use ExoQuick to isolate exosomes from:

- **Patient Serum and Plasma**
- **Patient Tumor Ascites fluids**
- **Compatible with Biofluids from Any Species**
- **For Media and Urine - use ExoQuick-TC**

We Also Offer Custom Services

System Biosciences offers a wide-range of custom services to support your research, allowing you to spend less time making tools, and more time making discoveries. To learn more, visit our website at www.systembio.com/service or call us at 888-266-5066.

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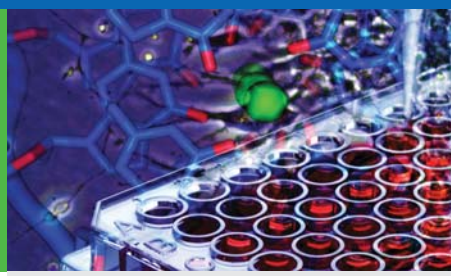
SBI System Biosciences
Accelerating discoveries through innovations

Biogenuix®

microRNA Research

ExoQuick-TC™ Exosome precipitation

Optimized one-step solution for rapidly isolating exosomes from tissue culture media and urine for biomarker analysis



Exosomes are 60 –120 nm membrane vesicles secreted by most cell types *in vivo* and *in vitro*. Exosomes are found in blood, urine, amniotic fluid, malignant ascite fluid, tissue culture media and contain distinct subsets of microRNAs and proteins depending upon the cell-type from which they are secreted. SBI's ExoQuick-TC exosome precipitation reagent is a special polymer formulation distinct from the original ExoQuick reagent for serum. ExoQuick-TC has been optimized for exosome isolation from media and urine samples. This technology makes microRNA and protein biomarker discoveries simple, reliable and quantitative.

Highlights

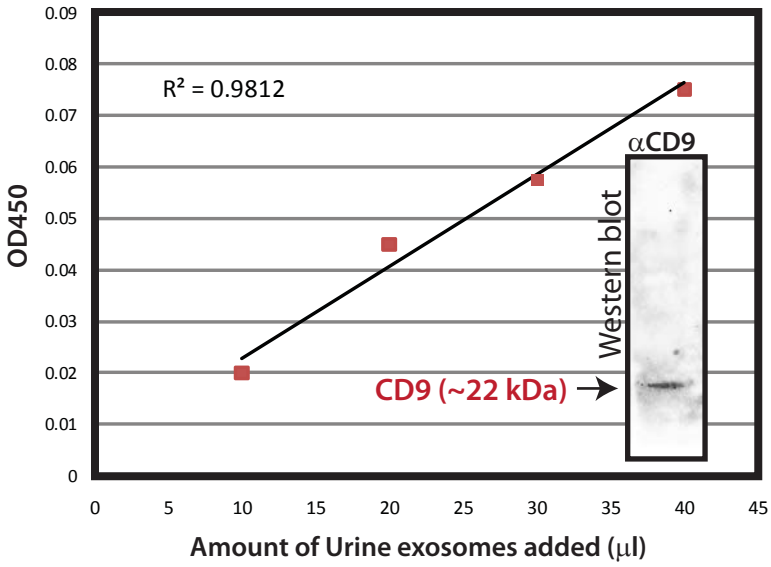
- Precipitate exosomes from cell culture media or urine samples easily
- Exosomes are released from tumors in high abundance
- Exosome cargo reflects the origin and physiological state of the source cells
- MicroRNAs are found in high abundance in circulating exosomes
- Discover novel disease-specific biomarkers

Isolate exosomes with ease

- **No time-consuming ultracentrifugation**
- **Less expensive than costly DynaBeads**
- **More effective than any other method**
- **Use as little as 5ml of cell culture media or urine**

Time saving, cost-effective solution for studying exosomes from culture media

ExoQuick-TC Urine Exosomes CD9 ELISA Assay



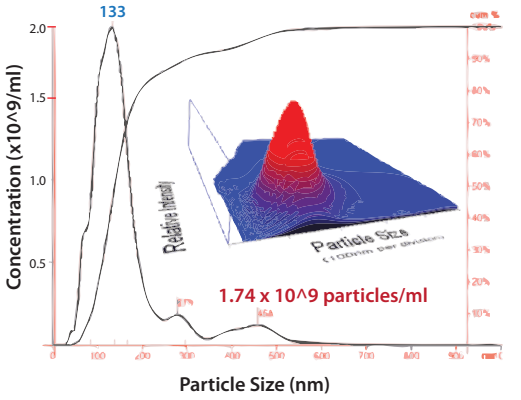
ExoQuick-TC precipitates urine exosomes

Ten milliliters of normal human urine was combined with 2ml ExoQuick-TC to precipitate urine exosomes. The exosome pellet was resuspended 175µl buffer and increasing amounts of the exosome suspension was loaded onto an ELISA-ready plate. The CD9 protein was detected using SBI's rabbit anti-CD9 primary antibody and SBI's HRP-conjugated secondary goat anti-rabbit antibody. The size of urine CD9 proteins was determined using Western blot analysis with the same set of antibodies (see inset).

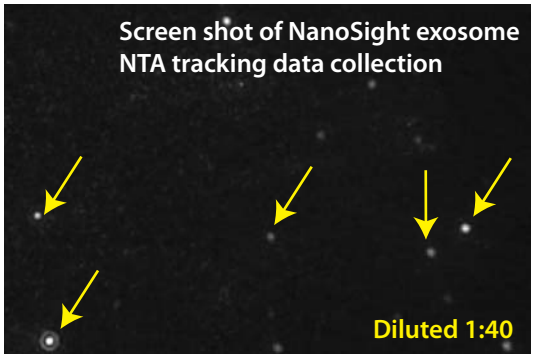
www.systembio.com/exoquick

NanoSight Analyses on Exosomes from Tissue Culture Media and Urine

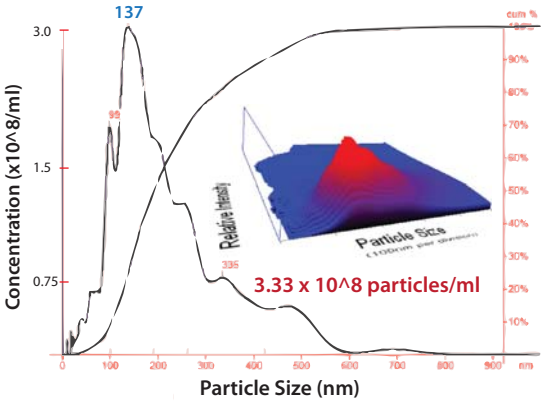
Media from HT1080 cells



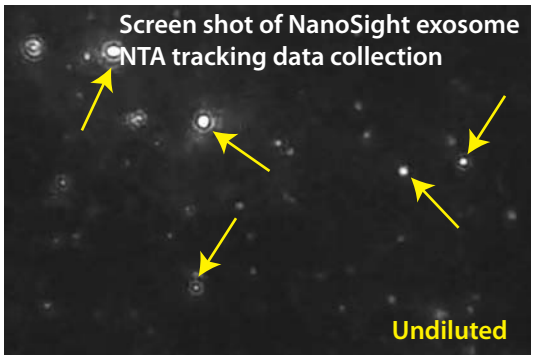
Human HT1080 lung sarcoma cell line was cultured in conditioned media (serum-free) for 72 hours. Ten milliliters of the media was combined with 2ml ExoQuick-TC to pellet the exosomes overnight. The exosome pellet was resuspended in 1ml PBS, diluted 1:40 and visualized on the NanoSight LM10 instrument. The analysis shows that ExoQuick isolated 133nm exosomes with a recovery of 1.74 x 10^9 particles/ml.



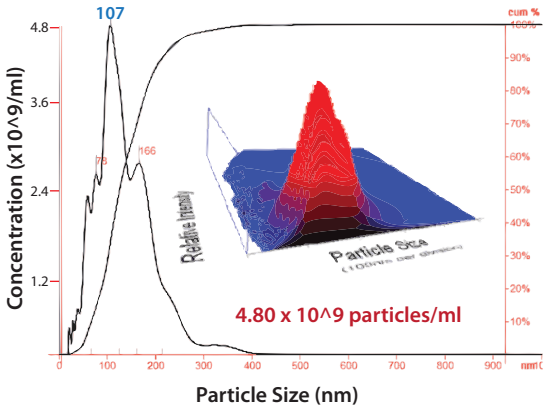
Media from HEK293 cells



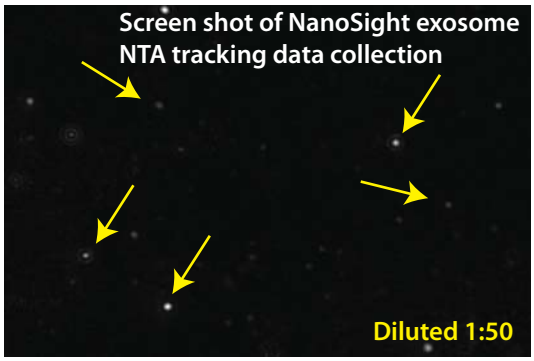
Human embryonic kidney (HEK) cell line was cultured in conditioned media (serum-free) for 72 hours. Ten milliliters of the media was combined with 2ml ExoQuick-TC to pellet the exosomes overnight. The exosome pellet was resuspended in 1ml PBS and visualized on the NanoSight LM10 instrument undiluted. The analysis shows that ExoQuick isolated 137nm exosomes with a recovery of 3.33 x 10^8 particles/ml.



Human Urine



A Normal human urine sample was used. Five milliliters was combined with 2.5ml ExoQuick-TC to pellet the exosomes overnight. The exosome pellet was resuspended in 1ml PBS, diluted 1:50 and visualized on the NanoSight LM10 instrument. The analysis shows that ExoQuick isolated 107nm exosomes with a recovery of 4.80 x 10^9 particles/ml.



We Also Offer Custom Services

System Biosciences offers a wide-range of custom services to support your research, allowing you to spend less time making tools, and more time making discoveries. To learn more, visit our website at www.systembio.com/service or call us at 888-266-5066.

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