

ExoQuick-TC™ Exosome precipitation

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

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 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.

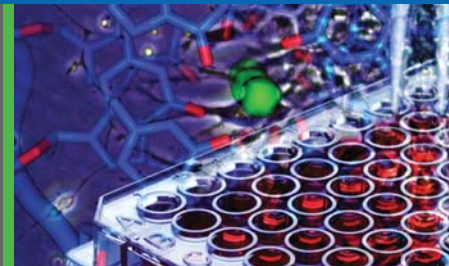
Isolate exosomes with ease

- 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

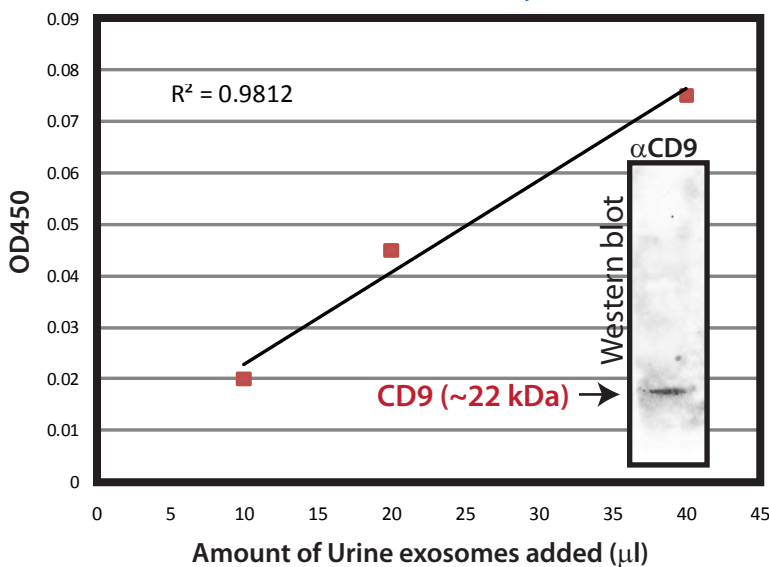
Time saving, cost-effective solution for studying exosomes from culture media

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



ExoQuick-TC Urine Exosomes CD9 ELISA Assay



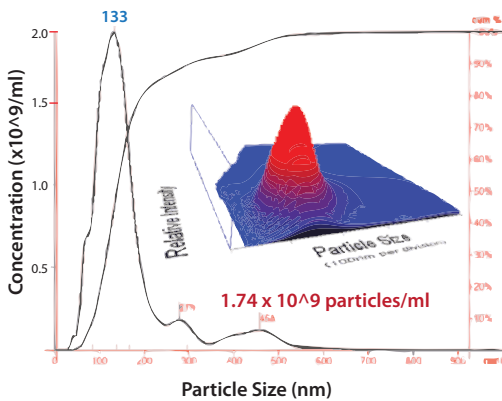
ExoQuick-TC precipitates urine exosomes

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).

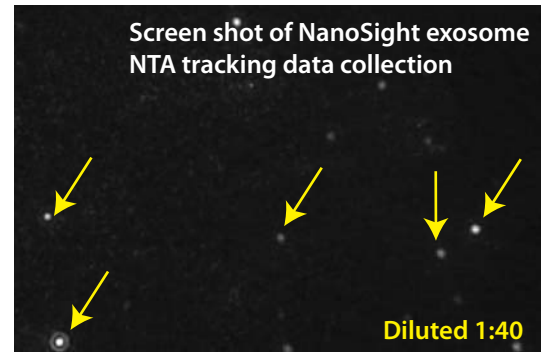


NanoSight Analyses on Exosomes from Tissue Culture Media and Urine

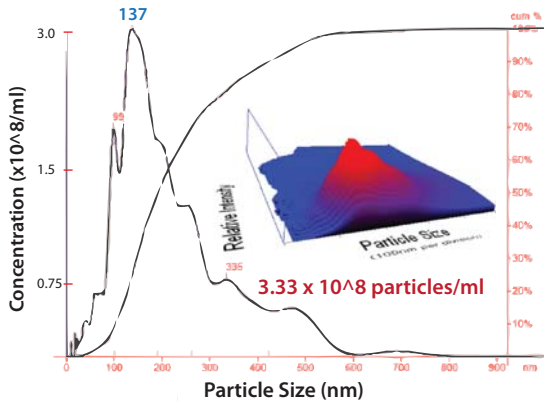
Media from HT1080 cells



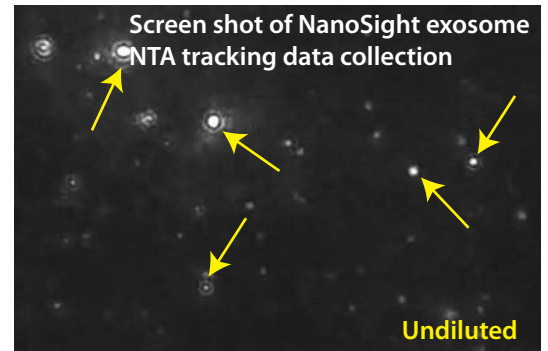
Human HT1080 lung sarcoma cell line was cultured in conditioned media (serum-free) for 72 hours. Ten milliliters of the media was combined with 2ml ExoQuick-TC to pellet the exosomes overnight. The exosome pellet was resuspended in 1ml PBS, diluted 1:40 and visualized on the NanoSight LM10 instrument. The analysis shows that ExoQuick isolated 133nm exosomes with a recovery of 1.74 x 10⁹ particles/ml.



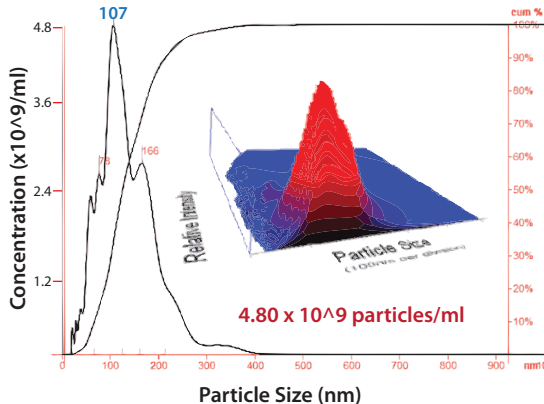
Media from HEK293 cells



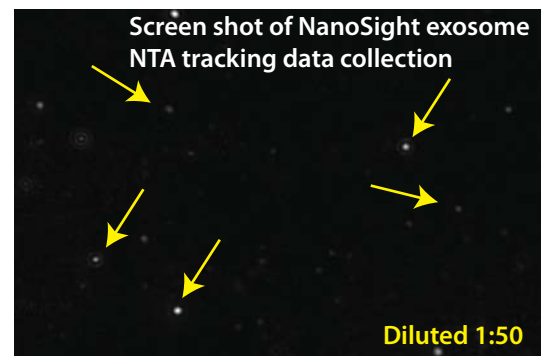
Human embryonic kidney (HEK) cell line was cultured in conditioned media (serum-free) for 72 hours. Ten milliliters of the media was combined with 2ml ExoQuick-TC to pellet the exosomes overnight. The exosome pellet was resuspended in 1ml PBS and visualized on the NanoSight LM10 instrument undiluted. The analysis shows that ExoQuick isolated 137nm exosomes with a recovery of 3.33 x 10⁸ 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 10⁹ particles/ml.



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