

# ExoQuick™ PLUS and ExoQuick-TC™ PLUS

WHEN YOU NEED AN EXTRA LEVEL OF CONFIDENCE

SYSTEMBIO.COM/EXOQUICK-PLUS

## HIGHLIGHTS

- **Cleaner**—reduces albumins and immunoglobulins as much as 85% more than leading column-based serum exosome isolation kits
- **Better**—reduces total protein carryover as much as 50% more than competing column or precipitation-based approaches
- **Powerful**—detects biomarkers with as much as a 3-fold increase in sensitivity
- **Fast**—takes less than 10 minutes of hands-on-time after initial ExoQuick isolation

*Less is more—ExoQuick PLUS and ExoQuick-TC PLUS for when you need an extra level of confidence.*

## Quick and efficient exosome isolation for sensitive applications

While the ExoQuick™ family of reagents streamline exosome isolation and are compatible with most downstream uses, some applications are especially sensitive to carry-over of non-exosomal proteins—applications such as mass spectrometry, western blotting of low abundance markers, exosome labeling, and *in vivo/ex vivo* exosome delivery. Which is why SBI offers ExoQuick™ PLUS and ExoQuick-TC™ PLUS.

Building on our popular ExoQuick family of products, ExoQuick PLUS and ExoQuick-TC PLUS further reduce protein carryover from serum/plasma and tissue culture exosomal preparations with a simple treatment of our ready-to-use, customized microspheres. In less than ten minutes of total hands-on time after ExoQuick isolation, you can obtain highly pure, intact exosomes suitable for a variety of protein-sensitive applications.

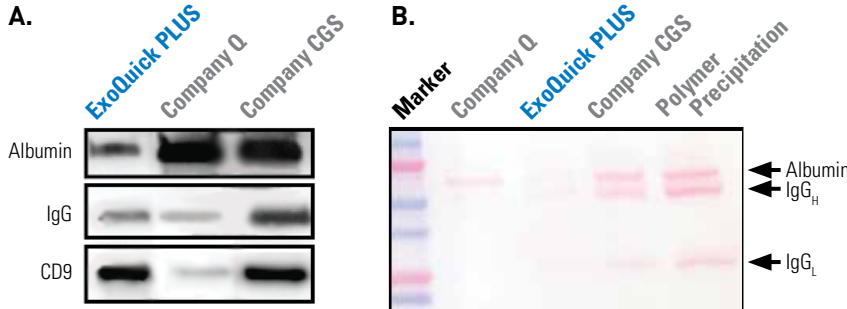
### Choose the best ExoQuick product for your application

	ExoQuick ExoQuick-TC	ExoQuick PLUS ExoQuick-TC PLUS
<b>Protein Detection</b>		
Western blotting for general exosome markers (e.g. CD9, 63, 81, TSG101, Alix)	● ● ● ● ●	● ● ● ● ●
High-sensitivity western blotting (e.g. low abundance biomarkers)	● ● ●	● ● ● ● ●
<b>qPCR Analysis</b>		
qPCR of coding and non-coding RNAs (eg. mRNA, miRNA, and lncRNA)	● ● ● ● ●	● ● ● ● ●
<b>High Throughput Biomarker Discovery</b>		
RNA-seq of exosomal RNAs	● ● ● ● ●	● ●
Mass spectrometry of exosomal proteins	● ● ●	● ● ● ● ●
Lipidomics/Metabolomics of exosomal cargo	● ● ●	● ● ● ● ●
<b>Exosome Labeling</b>		
	● ● ●	● ● ● ● ●
<b><i>In vivo/ex vivo</i> Exosome Delivery</b>		
	● ● ●	● ● ● ● ●
● ● ● ● ● Highly recommended, ● Not recommended		



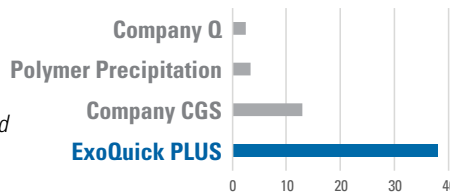
### ExoQuick PLUS—high performance in action

Exosome isolation with ExoQuick PLUS results in samples with less protein carryover compared to samples prepared with competitors' reagents as shown by Western Blot (Figure 1A), Ponceau staining (Figure 1B), and particle:protein ratio measurements (Figure 2).



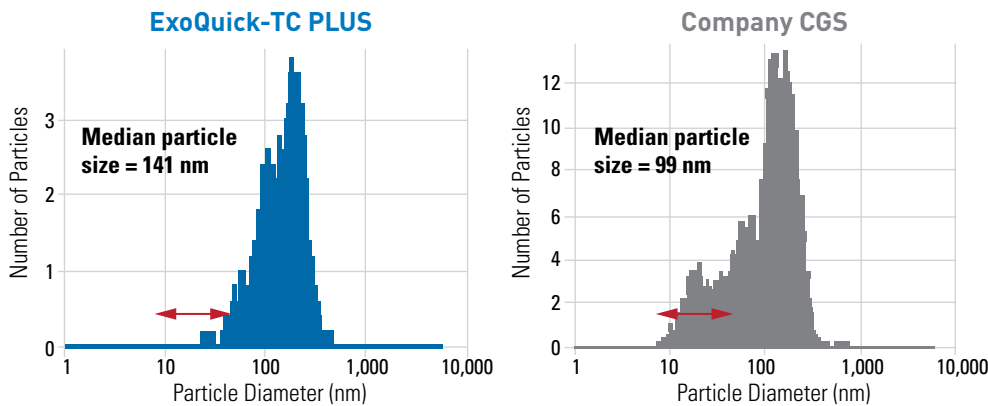
**Figure 1.** For each lane, 2.5 µg of total protein was loaded. **A.** Western blot probing for serum albumin, IgG, and the exosome-specific tetraspanin marker CD9 shows higher CD9:IgG and CD9:albumin ratios in the ExoQuick PLUS lane than in the competitors' lanes. **B.** Ponceau staining to assess total serum protein abundance shows the least amount of carry-over protein in the ExoQuick PLUS lane.

**Figure 2.** The particle:protein ratio is a measure of relative protein carry-over, with a higher ratio indicating less protein carry-over. Particle numbers were generated using NanoSight NTA analysis, and carry-over protein concentrations were measured using a BCA assay.



### ExoQuick-TC PLUS—efficient, high-quality exosome isolation

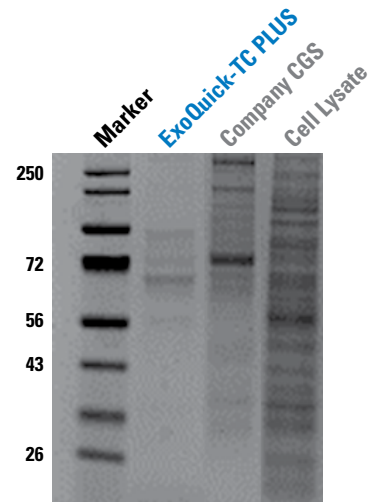
ExoQuick-TC PLUS delivers the same high performance as ExoQuick PLUS, with a better defined particle size distribution (Figure 3) and low protein carryover (Figure 4).



**Figure 3.** ZetaView particle size analysis of exosomes isolated from cultured RPMI 8226 cells using either ExoQuick-TC PLUS (left panel) or a competitor's kit (right panel). The red double arrow in the left panel indicates a broad shoulder of particles too small to be exosomes (< 50 nm in diameter) which are likely to be undesirable protein aggregates. These contaminants are not present in the exosomes isolated using ExoQuick-TC PLUS (red double arrow indicates the same particle diameter range as in the right panel). *Data courtesy of Richard J. Jones, PhD., MD Anderson Cancer Center.*

### Building the tools that speed your research

*With an eye on the latest advances, SBI finds promising technology and converts it into easy-to-use tools accessible to any researcher. Our growing exosome product portfolio is just one example. See what other ways SBI can drive your research forward—visit us at [systembio.com](http://systembio.com).*



**Figure 4.** ExoQuick-TC PLUS treatment showed significantly lower protein carry-over from the bovine-exosome depleted media. For each lane, 5 µg of total protein was loaded. After running the gel, total protein was detected using colloidal blue staining. *Data courtesy of Richard J. Jones, PhD., MD Anderson Cancer Center.*