AdisomesPro: Quality Considerations for Aesthetic Exosome Products

When selecting an exosome product for your aesthetic practice, the decision typically centers on quality and cost. Unfortunately, in the aesthetics industry, attractive marketing materials and enhanced imagery often overshadow product quality and scientific rigor.

Understanding the fundamental quality indicators is essential to ensure you purchase a product that delivers optimal outcomes while maintaining patient safety. Below are key considerations for evaluating exosome products.

Manufacturing Standards and Laboratory Credentials

Adisomes Pro exosomes are produced in an FDA-compliant laboratory located in the United States, where stem cell research serves as the primary focus. This facility operates as a dedicated research laboratory rather than a marketing company or medical device manufacturer, ensuring scientific rigor in product development.

Exosome Source and Stem Cell Type

The origin of stem cells that produce exosomes significantly impacts product quality. While perinatal products dominate the market—not due to superior efficacy but because of their low cost and minimal equipment requirements—the preferred stem cell type for aesthetic applications is the adipose-derived stem cell.

Adipose-derived stem cells naturally produce skin and fat tissue, making them the optimal choice for aesthetic exosomes and most regenerative medicine applications.

Stem Cell Sourcing Standards

Exosomes originate from stem cells, and sourcing standards directly affect product quality. Adisomes Pro derives from first-generation cultures of U.S. donors who undergo screening and testing according to FDA standards. In contrast, most competing exosome products source from birthing centers or adipose tissue harvested in Asia under less stringent regulatory oversight.

Cell Culture Methods

For mass production, stem cells are typically forced to replicate using bioreactors. However, forced cell replication has been demonstrated to produce mutations that may carry unknown health consequences.

Preservation Technology: Lypholization vs. Cryopreservation

Why Lypholized (Freeze-Dried) Exosomes Demonstrate Superior Performance

Lyophilized (freeze-dried) MSC (mesenchymal stem cell) exosomes may exhibit higher levels of rRNA, miRNA, and other signaling molecules compared to cryopreserved exosomes for several reasons:

Enhanced Stability and Preservation:

Lyophilization stabilizes exosomes and their contents by slowly removing water, preventing RNA degradation and molecular breakdown during storage. While cryopreservation is effective, ice crystal formation can damage exosomes and compromise their contents.

Concentration Effects:

The lyophilization process concentrates exosome samples, resulting in an enriched profile of RNA and signaling molecules in the final product compared to the diluted state often found in cryopreserved samples.

Protective Agent Integration:

Lyophilization incorporates cryoprotectants and stabilizing agents (such as sugars) that preserve RNA and biomolecule integrity during the drying process. These protective effects may be absent or less effective in cryopreserved products.

Superior Long-Term Storage:

Lyophilized exosomes maintain stability at room temperature without significant degradation, while cryopreserved exosomes require ultra-low temperatures. This storage advantage helps maintain signaling molecule activity over extended periods.

Optimized Processing:

The lyophilization process can improve exosome yield and quality extraction from MSCs, enhancing RNA and signaling molecule recovery compared to traditional cryopreservation methods.

Accurate Exosome identification and Quantification

The Industry Standard vs. Scientific Reality

Most exosome companies identify and count exosomes based solely on particle size. Unfortunately, the majority of particles identified through this method are not functional exosomes but rather non-vesicular artifacts.

Recent industry claims cite extracellular vesicle concentrations as high as 1.6×10^{12} particles per sample. However, these values typically reflect total particle counts from nanoparticle tracking analysis (NTA) without distinguishing between functional exosomes and non-vesicular artifacts.

Our Advanced Testing Protocol

We advocate for lipid membrane counting as a more accurate metric, specifically quantifying intact, bilayer-membrane-bound exosomes. Independent analysis of commercially available products has yielded a lipid membrane count of zero, while our preparations consistently demonstrate approximately 8.9×10^{9} intact exosomes per sample.

AdisomesPro provides two distinct counts for comprehensive evaluation:

- Nanoparticle count (for industry comparison)
- Verified functional exosome count (for clinical relevance)

Currently, we are not aware of other companies conducting these expensive verification tests. If such testing exists, the data likely remains unpublished, as results would probably confirm that actual exosome counts represent only a fraction of marketed claims and reveal that while products may contain miRNA and rRNA, these molecules lack functional capability.

When evaluating options, request third-party testing results using Brownian Motion Testing.

Clinical Peformance Validation

While media contents and growth factors from exosomes provide some therapeutic benefit, results represent only a fraction of what functional exosomes can achieve. We invite you to evaluate Adisomes Pro and experience the difference firsthand.

Scientific Documentation

Every statement in this document can be supported with peer-reviewed studies, third-party data, and comprehensive documentation. Please contact us for questions or to request supporting materials for any claims presented.

For additional information or supporting documentation, please reach out to our scientific team.

Reach out today to learn more:

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Financing Options are Available!