cyagen | OriCell

User Manual

OriCell™ SD Rat Bone Marrow Mesenchymal Stem Cell Exosomes

Catalog No. RASMX-06001

We help you discover life

Introduction

Exosomes are nano-sized vesicles (approximately 30–150 nm) secreted by cells and classified as a subtype of extracellular vesicles (EVs). They feature a phospholipid bilayer membrane embedded with specific surface proteins. Inside, exosomes carry key signaling molecules, including proteins, RNA, and DNA. These vesicles are widely distributed in body fluids such as blood, urine, cerebrospinal fluid, saliva, breast milk, and bile.

Exosome research in academia and industry mainly focuses on four areas: biomarkers for early disease diagnosis, therapeutic applications, exosome inhibition, and drug delivery vehicles. Current studies primarily emphasize exosomes derived from pluripotent stem cells and tumor cells.

OriCell ™ offers diverse, high-quality cell products with a reliable supply to support researchers worldwide. OriCell ™ exosome products are customizable to meet specific research requirements, enabling detailed experimental designs and high-quality exosome isolation. Purity and concentration are verified using particle size analysis, electron microscopy, western blotting (WB), and other methods. Products are typically quantified and supplied based on protein content (μg).

Note: **This product is intended for research use only and is not for diagnostic, therapeutic, clinical, household, or any other applications.**

When citing our products in academic publications, please use the following format: "OriCell™ [Product Name] + [Catalog Number], from Cyagen Biosciences."

Product Information

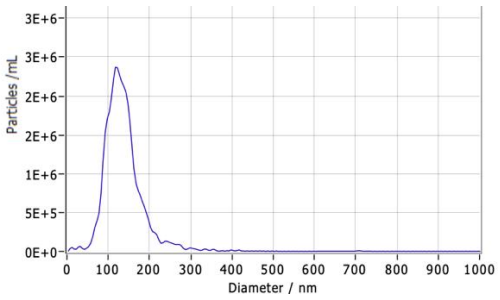
Components	Catalog Number	Volume
OriCell™ SD Rat Bone Marrow Mesenchymal Stem Cell Exosomes	RASMX-06001	100μg (or customize)

QC

- Pass the detection of bacteria, fungi, and mycoplasma.
- Pass the detection of particle size, electron microscopy, and WB.

Please refer to "COA" for details.

Exosome Identification Markers:

<table>
<tr><td>Particle Size</td><td colspan="3"> 
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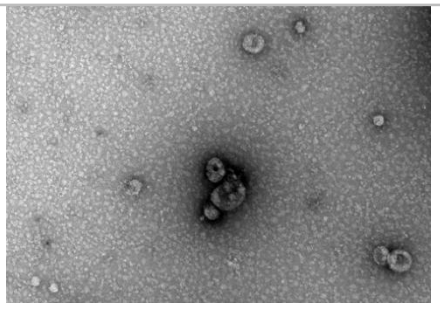
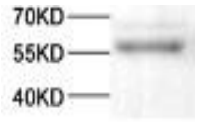
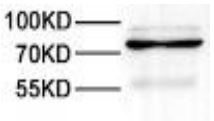
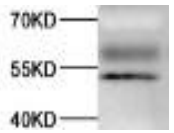
<tr><td>Electron Microscopy</td><td colspan="3">  </td></tr>
<tr><td>WB</td><td> 

CD63</td><td> 

HSP70</td><td> 

TSG101</td></tr>
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Product Stability and Storage Conditions

1. Do not store this product in liquid nitrogen.
2. Store this product at -80°C for up to 12 months or at 4°C for up to 2 days.
3. Avoid repeated freeze-thaw cycles, as they may reduce exosome yield. For small single-use volumes, aliquot the product into portions upon first thaw.

Instructions for Use

Note: **This usage guide is for reference only. Please adjust according to your specific experimental needs.**

1. Calculate the required amount of exosomes based on your experimental groups before starting.
2. Thaw the exosomes by transferring them from -80°C storage to a 4°C refrigerator for gradual thawing.
3. If dilution of exosomes is needed (steps 3–6), prepare 1× PBS or the corresponding basal culture medium.
4. Remove the exosome tubes from the 4°C refrigerator, wipe the outer surface with alcohol, and perform subsequent steps in a biosafety cabinet.
5. Pipette the calculated volume of exosomes into 1× PBS and gently mix by pipetting.
6. Use diluted exosomes immediately for cell culture or other assays. The undiluted exosomes can be aliquoted or stored directly at -80°C.
7. Take out the prepared cells and change the medium.
8. Add exosomes according to the experimental design, monitor the culture, and proceed with further assays.