



HQExo™ Exosome-MSC

Catalog: Exo-SC04

Exosomes are small endosome derived lipid nanoparticles (30-160 nm in diameter) secreted by exocytosis by most living cells and contain specific cargos, such as RNAs, lipids, and proteins. The cargos amount and composition of exosomes depend on the cell type from which they are released, which making them useful for biomarker discovery and functional characterization. Exosomes have been isolated from mesenchymal stem cells (MSCs), which have captured great attention in regenerative and translational medicine over a few decades due to their low immunogenicity, high biocompatibility, differentiation capacity, potent immunomodulatory properties, and their ability to be favorably cultured and manipulated. Exosomes transfer functional cargos like miRNA and mRNA molecules, peptides, proteins, cytokines and lipids from MSCs to the recipient cells, which contributes to the healing of necrotic tissues and organs or apoptotic cells HQExo™ exosomes derived from MSCs could use as positive controls for exosome isolation and functional research, such as ELISA, FACS, WB. With the unique capacity of proliferation and differentiation, exosomes derived from MSCs represented a great opportunity for regenerative therapeutic agents. For example, it has been reported that exosomes from cardiomyocytes or stem/progenitor cells can promote cardiac repair and regeneration. Lyophilization is useful for a long-term storage at 4°C, and frozen liquid should be kept at -20°C to -80°C. Ultracentrifugation and precipitation techniques are mainly used in exosome Isolation. It had been reported that both methods yielded extracellular vesicles in the size range of exosomes and included apoproteins, which can be used in downstream analyses. Nanoparticles Tracking Analysis (NTA) is used for measuring exosome particles concentration, and WB or ELISA can be used in exosomal biomarkers analysis. Creative Biostructure standard exosome products guarantee higher purity and quality to meet our customer research.

PRODUCT INFORMATION

Product Name	HQExo™ Exosome-MSC
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Source	Exosome derived from Xeno-Free Human Mesenchymal Stem/Stromal Cells and Media
Product Overview	Exosomes are small endosome derived lipid nanoparticles (30-160 nm in diameter) secreted by exocytosis by most living cells and contain specific cargos, such as RNAs, lipids, and proteins. The cargos amount and composition of exosomes depend on the cell type from which they are released, which making them useful for biomarker discovery and functional characterization. Exosomes have been isolated from mesenchymal stem cells (MSCs), which have captured great attention in regenerative and translational medicine over a few decades due to their low immunogenicity, high biocompatibility, differentiation capacity, potent immunomodulatory properties, and their ability to be favorably cultured and manipulated. Exosomes transfer functional cargos like miRNA and mRNA molecules, peptides, proteins, cytokines and lipids from MSCs to the recipient cells, which contributes to the healing of necrotic tissues and organs or apoptotic cells HQExo™ exosomes derived from MSCs could use as positive controls for exosome isolation and functional research, such as ELISA, FACS, WB. With the unique capacity of proliferation and differentiation, exosomes derived from MSCs represented a great opportunity for regenerative therapeutic agents. For example, it has been reported that exosomes from cardiomyocytes or stem/progenitor cells can promote cardiac repair and regeneration. Lyophilization is useful for a long-term storage at 4°C, and frozen liquid should be kept at -20°C to -80°C. Ultracentrifugation and precipitation techniques are mainly used in exosome Isolation. It had been reported that both methods yielded extracellular vesicles in the size range of exosomes and included apoproteins, which can be used in downstream analyses. Nanoparticles Tracking Analysis (NTA) is used for measuring exosome particles concentration, and WB or ELISA can be used in exosomal biomarkers analysis. Creative Biostructure standard exosome products guarantee higher purity and quality to meet our customer research.
Form	Lyophilized powder/ frozen liquid
Concentration	>5x10 ⁹ particles



Storage	Lyophilized powder store at 4 °C. Frozen liquid store at -20°C to -80°C. Recommended to avoid repeated freeze-and-thaw cycles.
Reconstitution	Reconstitute lyophilized exosome by adding deionized water for a desired final concentration. Centrifuge before opening to ensure exosomes are at bottom, resuspend exosomes by pipetting and/or vortex, please avoid bubbles. Centrifuge again and mix well for using.

USAGE GUIDELINES

General Handling	Avoid excessive mixing or vortexing to prevent aggregation. Long-term storage above -80°C may result in aggregate formation. Thaw on ice before use.
Storage	Short term: +2°C to +8°C (up to 1 week) Long term: -80°C (stable for 12 months)
Stability	Stable for 12 months at -80°C. Avoid repeated freeze-thaw cycles.
Freeze / Thaw	Can be frozen, but limit to ?3 freeze/thaw cycles to maintain particle integrity.

Important: This product is for **research use only**. Not intended for diagnostic or therapeutic applications. Please refer to the Safety Data Sheet (SDS) for complete handling and safety information.