Lyophilized Microvesicles/Large EVs

Purified microvesicles/large EVs from various sources

Product Code: HBM-mv###-#####

HansaBioMed Life Sciences

Pioneering the EV Field

About Microvesicles/Large EVs

Microvesicles, called Ectosomes, are formed by the outward budding of the plasma membrane. Their dimensions are between 100 and 1000 nm. The release is promoted by the translocation of residues of phosphatidylserine on the external layer of the plasma membrane. During the formation process, MV accumulate proteins and genetic material of the parental cells.

Lyophilized Microvesicles/Large EVs

Purified and lyophilized Microvesicles/Large EVs (MV) are obtained from cell conditioned media. Different EVs are separated by size using tangential flow filtration (TFF) and subsequantly purified by size exclusion chromatography (SEC). Isolated microvesicles are quantified and validated for the expression of markers CD9 and CD63, size distribution and particle number by NTA (Nanoparticles Tracking Analysis) with Zetaview analyzer (Particle Metrix).

Types of Microvesicles Available

- Lyophilized Microvesicles from cell culture media (COLO1, BLCL21, HCT116, SK-N-SH, U87, PC3, BPH-1, DAUDI, A549, K562, mouse cell B16F10).
- Lyophilized Microvesicles are avalable as 50 µl size.

Procedure for Microvesicle Reconstitution

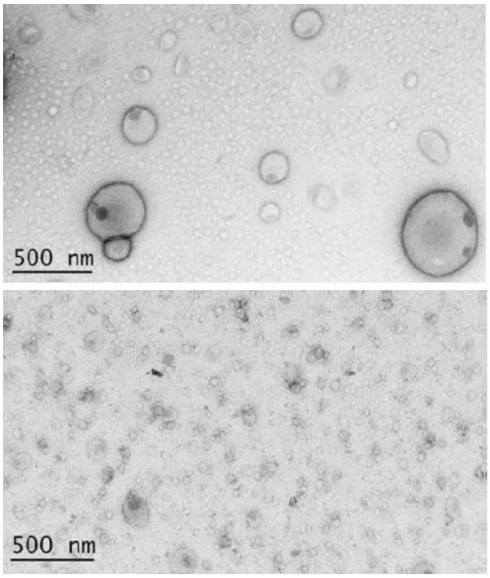
- Reconstitute Lyophilized Microvesicles by adding 50 µl of deionized water. Different volumes of deionized water for microvesicle reconstitution can be choosen by the users according to the desired final concentration. Resuspend microvesicles pipetting the solution up and down 10-15 times, avoiding bubbles. Vortex the reconstituted standard for 60 seconds.
- Briefly centrifuge the tubes containing the microvesicles to ensure that the solution is collected at the bottom of the tube. Pipette the solution up and down 10 times, avoiding the introduction of bubbles. After this step, the preparation is ready to use.

Storage

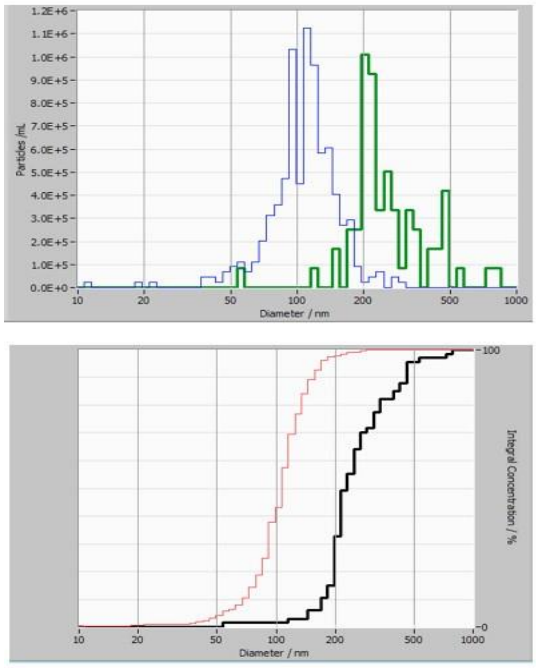
- Lyophilized Microvesicles can be stored for 36 months at 4°C.
- Reconstituted Microvesicles are not suitable for long term conservation at room temperature; use them within 2 hours after reconstitution. The remaining reconstituted solution should be aliquoted into polypropylene vials (preferably low binding) and stored at -20°C for up to one month or at -80°C for up to six months. Strictly avoid repeated freeze-and-thaw cycles.

Performance

Lyophilized Microvesicles have the same versatility of lyophilized exosomes/small EVs, being suitable for multiple applications and techniques. Compared to the Exosomes, MV show bigger dimentions and different size distribution, as revealed by NTA analysis and electron microscopy.



Electron microscopy images of the Lyophilized Exosomes and Lyophilized Microvesicles.



Size distribution of Lyophiized Exosomes (blue/red line) vs Lyophilized Microvesicles (green/black line).

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