

CD Bioparticles Introduces New Range of Kits for Advanced Exosome Labeling & Purification

CD Bioparticles has announced the launch of its new comprehensive line of kits for Exosome Labeling & Purification.

NEW YORK, NY, UNITED STATES, April 28, 2025 /EINPresswire.com/ -- <u>CD Bioparticles</u>, a leading manufacturer and supplier of numerous drug delivery products and services, has announced the launch of its new comprehensive line of kits for <u>Exosome Labeling & Purification</u>. This expansion of the exosome product portfolio provides researchers with new and efficient tools for studying these important extracellular vesicles.

Exosomes play an important role in the development of many known diseases and participate in various physiological and pathological developmental processes of the organism. Exosome carriers combine the advantages of cellular drug delivery and nanotechnology. As a new type of drug delivery carrier with natural properties, it has the ability to cross the biological barrier of the human body. Therefore, the use of exosomes as carriers enables effective and safe drug delivery. It can be delivered to all major systems of the human body, thus becoming a feasible and effective method of treating diseases with a bright future.

To understand the biodistribution and function of exosomes, effective tracking and visualization is essential. CD Bioparticles' new range of exosome labeling and purification kits offers a wide selection of options to meet a variety of experimental needs. These kits utilize different fluorescent dyes for efficient membrane labeling, including DiO-Membrane Exosome Labeling & Purification Kit (CDTE24-005-L), PKH67-Membrane Exosome Labeling & Purification Kit (CDTE24-005-L), and DiR-Membrane Exosome Labeling & Purification Kit (CDTE24-007-L).

For example, the DiR-Membrane Exosome Labeling & Purification Kit efficiently labels exosome membranes with DiR, a near-infrared fluorescent lipophilic carbonyl cyanide widely used as a lipophilic tracer. Excess unbound dye is then rapidly removed by superior spin columns, which separate molecules based on size differences. Removal of contaminants is easier and faster than traditional cleanup methods such as ultracentrifugation and spin filtration. This kit has higher specificity and sensitivity than conventional visible dyes due to better tissue permeability in the NIR and lower autofluorescence of cells and tissues. It can be used to track the migration and distribution of labeled exosomes in vivo in real time.

Another is the DiO-Membrane Exosome Labeling & Purification Kit. The carbonyl cyanine dye

DiO is highly lipophilic and is widely used for staining cell membranes. This dye labels cells uniformly by lateral diffusion across the plasma membrane. The fluorescence of free DiO is very weak, but is greatly enhanced by binding to the cell membrane. Additionally, DiO fluoresces green upon excitation with maximum excitation and emission wavelengths of 484 nm and 501 nm, respectively. With highly specific membrane labeling and very low background levels, this kit can be used for most applications where visual tracking of labeled exosomes is required.

CD Bioparticles offers a broad portfolio to support exosome research, including purified exosomes, extraction kits, and tools for exosome capture and quantification. To learn more about solutions for exosome research, please visit <u>https://www.cd-bioparticles.net/products/exosome-labeling-purification</u>.

About CD Bioparticles

CD Bioparticles is an established drug delivery company that provides customized solutions for developing and manufacturing novel biocompatible drug delivery systems. It specializes in various formulation and drug delivery technologies, from conventional liposomes and PEGylated liposomes to polymer microspheres and nanoparticles for drug delivery. The company also provides contract research services for drug delivery formulation, formulation feasibility study, process development and scale-up, as well as analytical and non-clinical research services.

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