Establishment of large-scale production and quality control technologies for high-quality exosome formulations

Life Science

Commercialization Promotion Organization Vision Incubate Co., Ltd.

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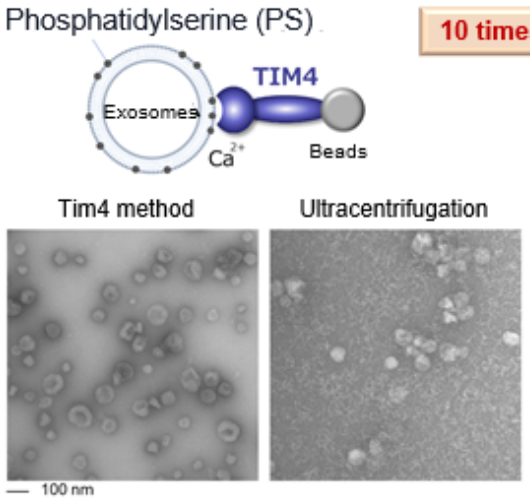
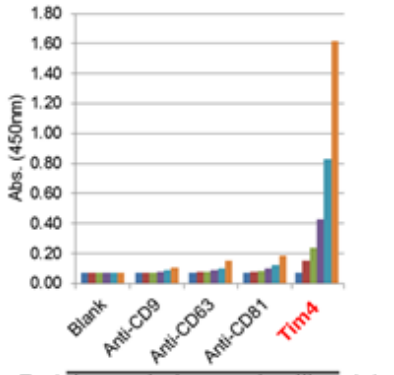
Exosomes are vesicles 50-100 nm in diameter secreted by cells. They transfer proteins, DNA, and RNA, and therapeutic approaches utilizing exosomes are being developed.

Prospect	Development of innovative preventive and therapeutic approaches in various medical fields such as cancer, immune, infectious, neurological, cardiovascular, endocrine diseases, regenerative medicine, etc.
Problem	Insufficient guidelines and lack of standard protocols by regulatory authorities in each country for production methods, quality control, safety assessment, etc.

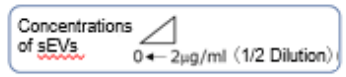


10 times higher purity and 100 times more sensitive

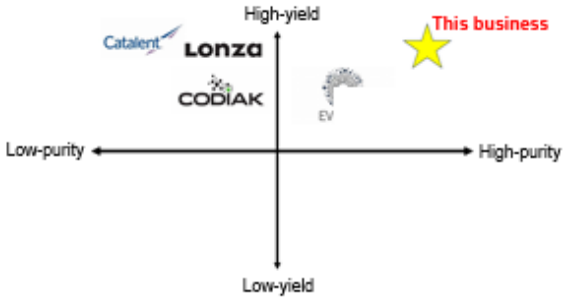


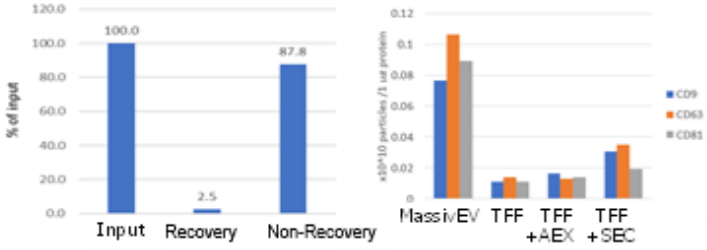
Patent 6824742; US11639924, etc.
Exosome analysis method using TIM4

FUJIFILM Wako



Comparison of mass purification methods	MassivEV (TIM4 method)	TFF + AEX	TFF + SEC
Steps and Time	1 step, 8 hours	2 steps, 10 hours	2 steps, 10 hours
Number of particles recovered from 1 liter	1×10^{12}	5×10^{11}	3×10^{11}
Purity	High (More than 10 times)	Low	Low
Exosomes that can be purified	High uniformity	Varies by fractionation	Varies by fractionation
Specific activity	3	1	1





Expected establishment date: December 2027 **Target market: Global**