

Nano - Beads Cell Separation System



Cell sorting is a process of separating one or more specific cell groups from cell suspension according to the characteristics of cells. It is the premise and basis for biochemical and functional analysis of cytobiology.

Cell suspension are placed in a magnetic field, which bind to specific antibody and magnetic beads. Then the labeled cell group are adsorbed, enriched, and sorted under the magnetic field. RWD Nano-Beads Cell separation System does not need large instruments, and has the characteristics of simple, rapid and high purity.

RWD Life Science Co.,Ltd

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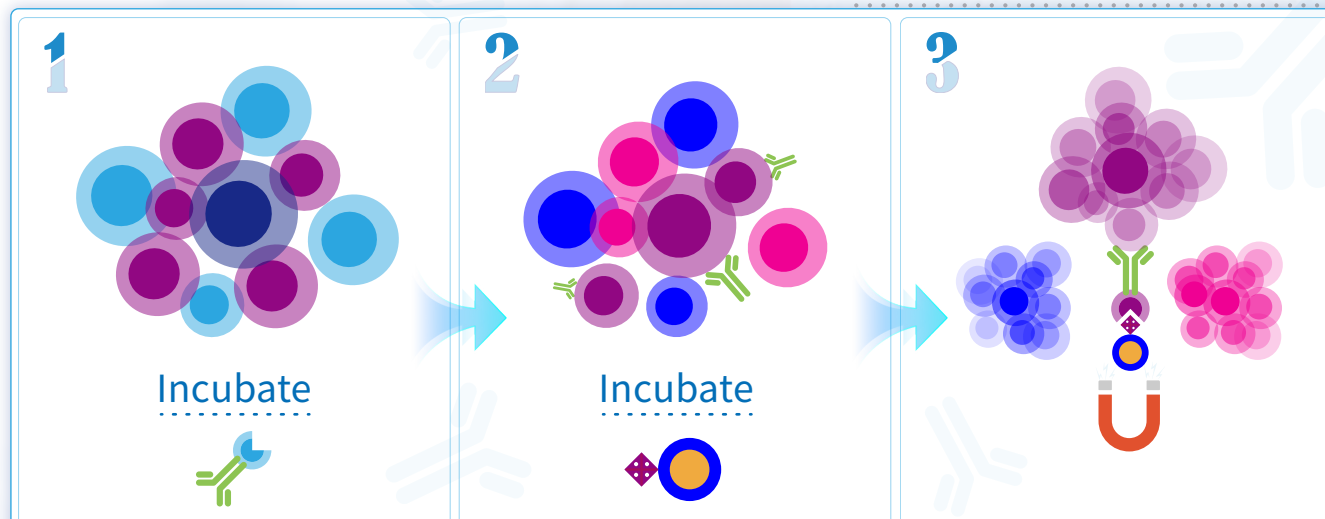
RWD Life Science Inc.

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Nano-Beads Cell Separation Platform Column-based

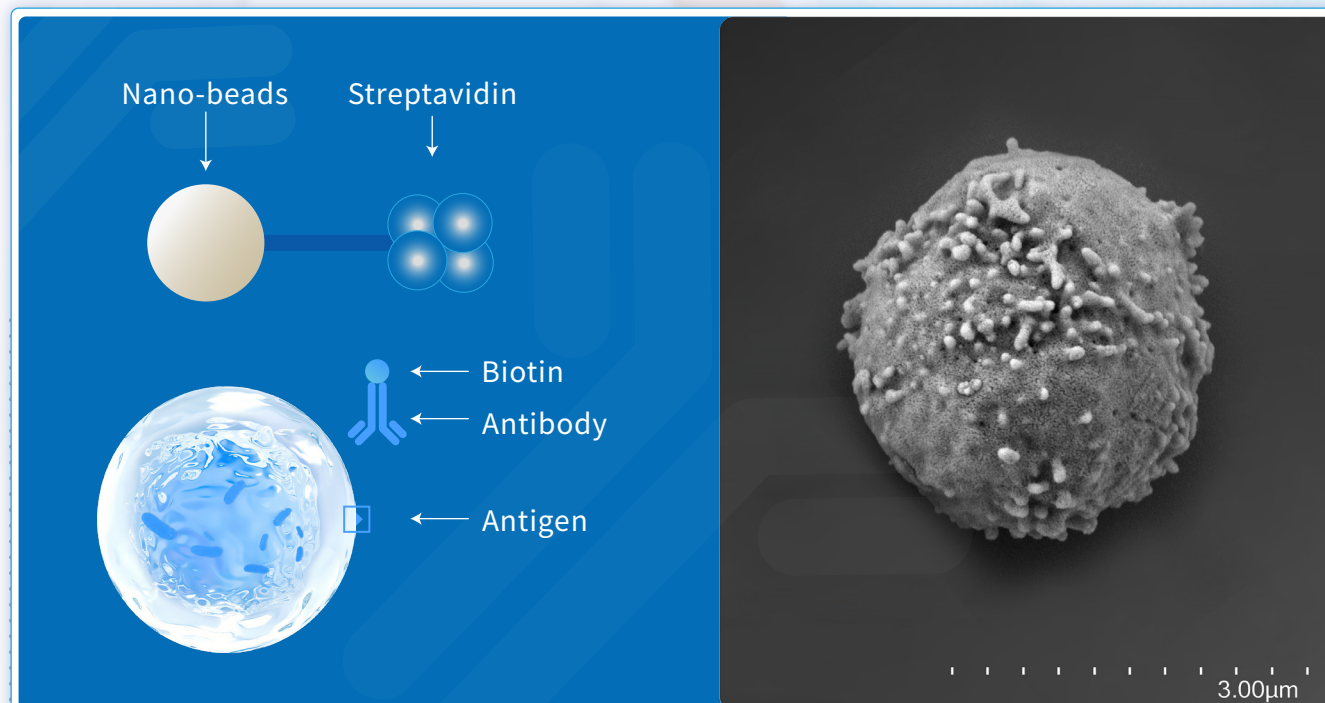
— Combined with columns, high purity of cell sorting —

Product Principle



The surface of Nano-beads are labeled with monoclonal antibody, then added to the cells. Nano-beads have good biocompatibility. The target cells with high purity and high viability can be sorted in a short time. These sorted cells can be directly applied to flow cytometry, cell culture, single cell sequencing and more.

Nano-Beads are important members of Magnetic Cell Separation System

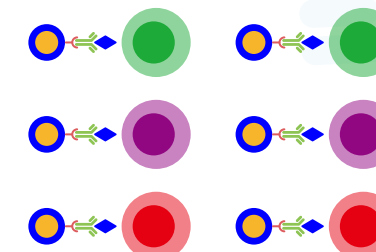


Nano-Beads are super magnetic polymer beads, which coated with a thin polymer shell to enclose magnetic materials. Nano-Beads are ideal materials for adsorbing or coupling various bioreactive molecules.

Product Component

Nano-Beads

- Combined with streptavidin
- Good biocompatibility
- Degradable and not affect the cell state
- Good stability & dispersion



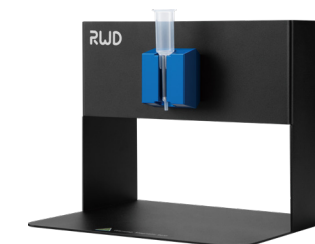
LarSep Columns

- Filled hydrophilic coating
- Harmless to cells
- Aseptic packaging & single-use
- Capable of total cells: $10^7 \sim 2 \times 10^9$ cells



Separator

- Consisted of magnetic pole and separation stand
- High intensity magnetic field
- Capable of single channel or multi-channels



Cell Separation Kits

- Labeled with antibody and Nano-Beads
- Rich in species, including various human and mouse kits
- High purity & good viability



Product Advantages



Nano-Beads have good biocompatibility, and can be degraded.



High purity and good viability.

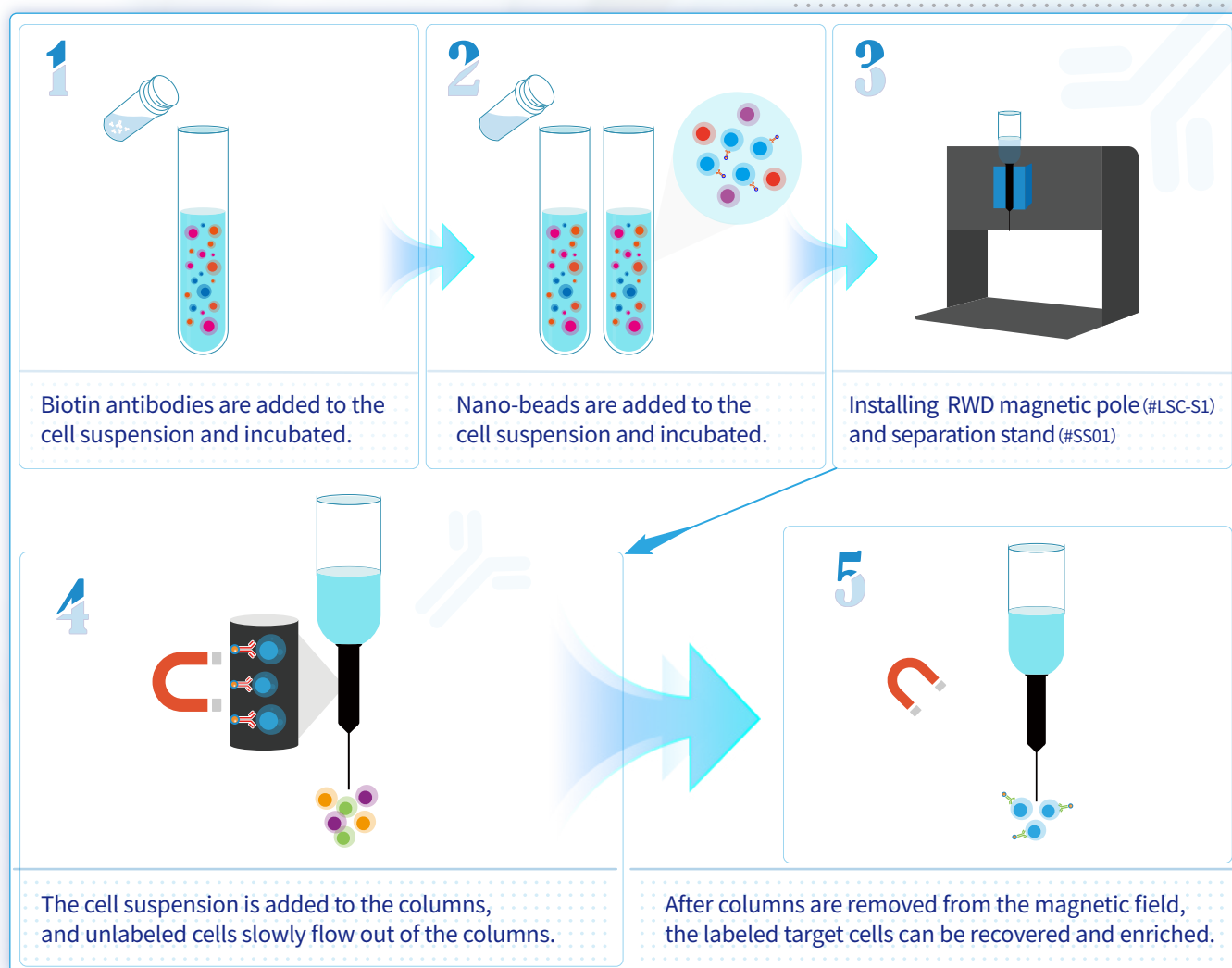


Process is simple and rapid.

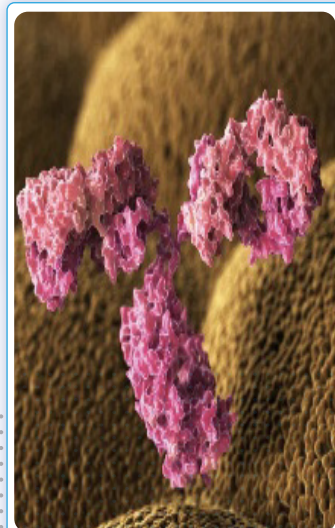


Sorted cells do not affect cell biology experiments.

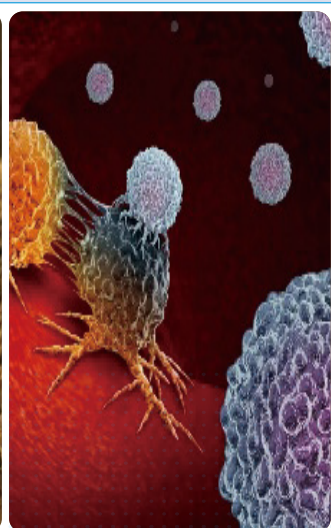
Experimental Process



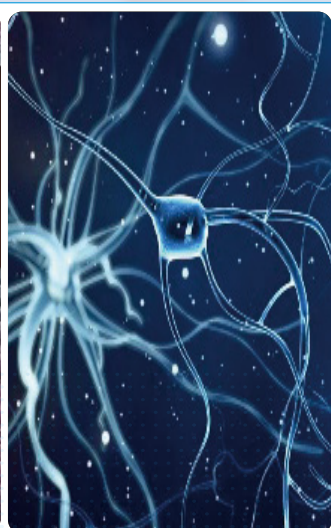
Product Application



Immunological Research



Oncology Research



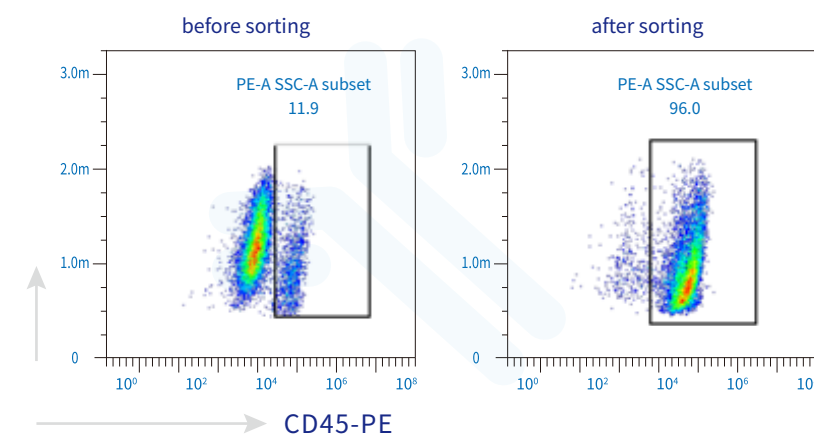
Neurobiological Research



Cell Therapy Research

Data Presentation

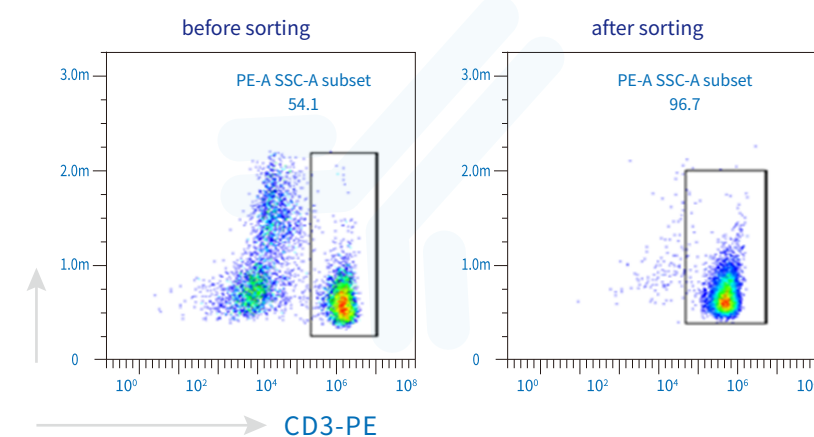
Mouse CD45+ Cell Separation Kit (column, positive)



Sample: Mouse colorectal tumor

- Percentage of CD45+ cells
before separation: 11.95%
- Cell purity after separation: 96%
- Cell yield after separation: 80%
- Cell viability after separation: 96%

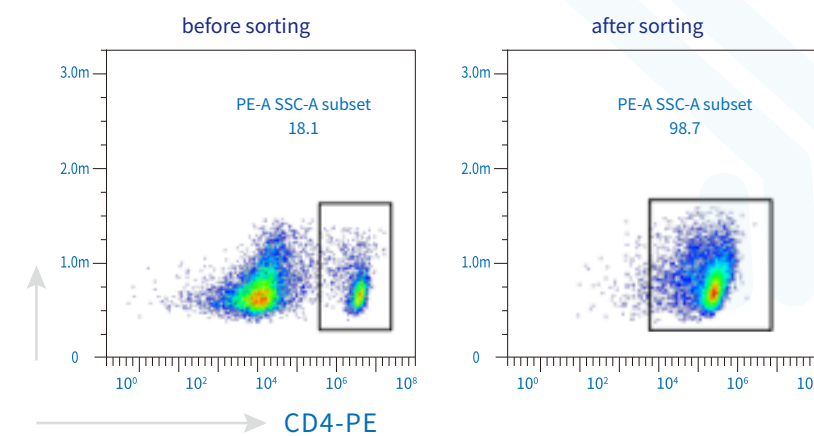
Mouse CD3+ Cell Separation Kit (column, positive)



Sample: C57 mouse spleen cells

- Percentage of CD3+ cells
before separation: 54.1%
- Cell purity after separation: 98%
- Cell yield after separation: 60%
- Cell viability after separation: 95%

Mouse CD4+ Cell Separation Kit (column, positive)

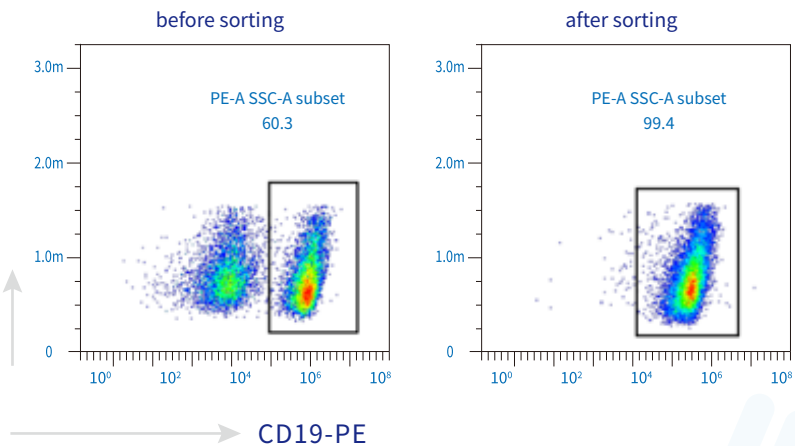


Sample: C57 mouse spleen cells

- Percentage of CD4+ cells
before separation: 18.1%
- Cell purity after separation: 98.6%
- Cell yield after separation: 67%
- Cell viability after separation: 98%

Data Presentation

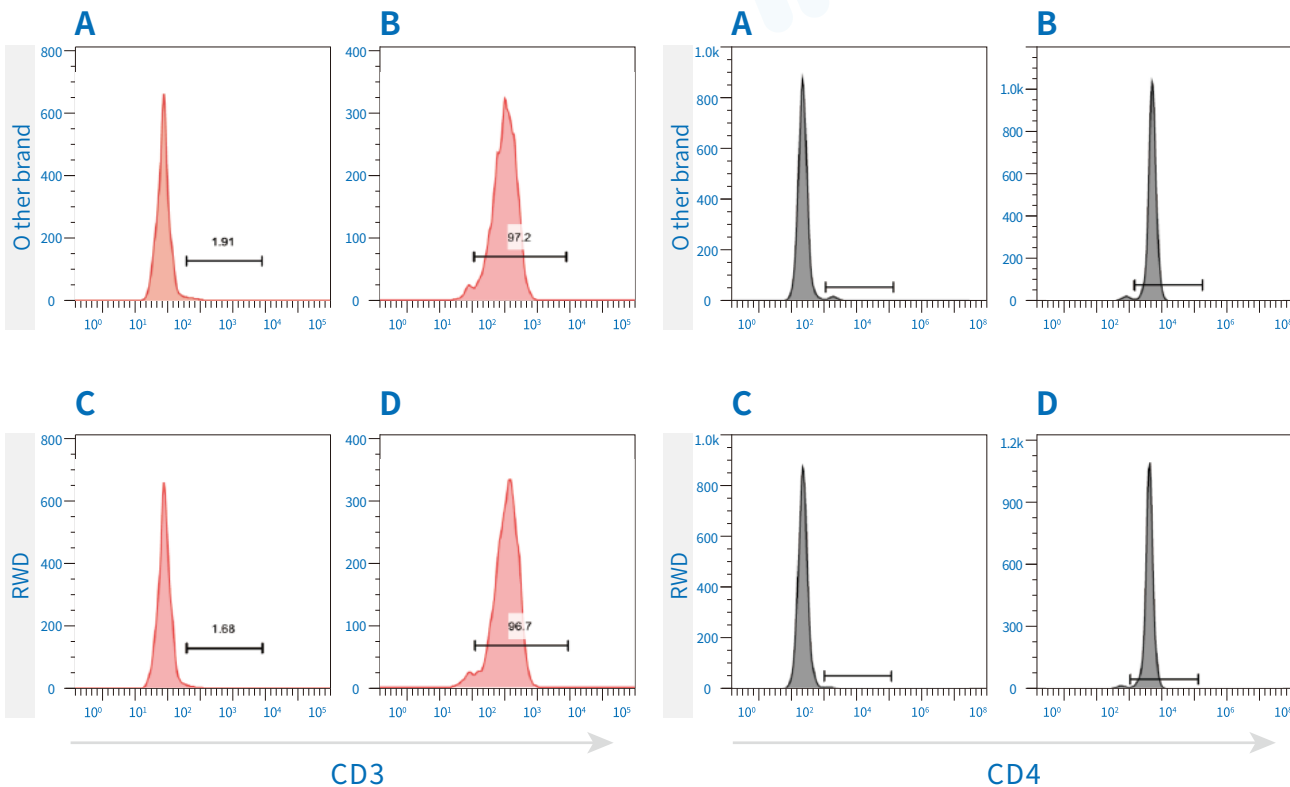
Mouse CD19+ Cell Separation Kit (column, positive)



Sample:
C57 mouse spleen cells

- Percentage of CD19+ cells
before separation: 60.3%
- Cell purity after separation: 99.4%
- Cell yield after separation: 71.66%
- Cell viability after separation: 95%

Comparison to other brand—Mouse CD3+、CD4+Cell Separation Kits



- CD3+ and CD4+ cell sorting experiments were carried out on mouse spleen single cell suspension:
- RWD was used for CD3+ cell sorting, the negative tube residue was 1.68%, and the CD3+ cell purity was 96.7%, which was better than other brand.
- RWD was used for CD4+ cell sorting, the negative tube residue was 1.68%, and the CD4+ cell purity was 97.3%, which was better than other brand.

Ordering Information

Species	Product Name	Sorting mode	Cat No.	Specification	Storage	Term of validity
Mouse	Mouse CD3+ Cell Separation Kit	Positive	K1301-10	100 tests	2~8℃	12 months
	Mouse CD4+ Cell Separation Kit	Positive	K1302-10	100 tests	2~8℃	12 months
	Mouse CD8+ Cell Separation Kit	Positive	K1303-10	100 tests	2~8℃	12 months
	Mouse CD45+ Cell Separation Kit	Positive	K1304-10	100 tests	2~8℃	12 months
	Mouse CD19+ Cell Separation Kit	Positive	K1305-10	100 tests	2~8℃	12 months
	Mouse CD11b+ Cell Separation Kit	Positive	K1306-10	100 tests	2~8℃	12 months
Human	Human CD3+ Cell Separation Kit (RUO)	Positive	K1201-10	100 tests	2~8℃	12 months
	Human CD4+ Cell Separation Kit (RUO)	Positive	K1202-10	100 tests	2~8℃	12 months
	Human CD8+ Cell Separation Kit (RUO)	Positive	K1203-10	100 tests	2~8℃	12 months
	Human CD14+ Cell Separation Kit (RUO)	Positive	K1204-10	100 tests	2~8℃	12 months
	Human CD45+ Cell Separation Kit (RUO)	Positive	K1205-10	100 tests	2~8℃	12 months
	Human CD19+ Cell Separation Kit (RUO)	Positive	K1206-10	100 tests	2~8℃	12 months
	Human NK Cell Isolation Kit (RUO)	Negative	K1207-10	100 tests	2~8℃	12 months

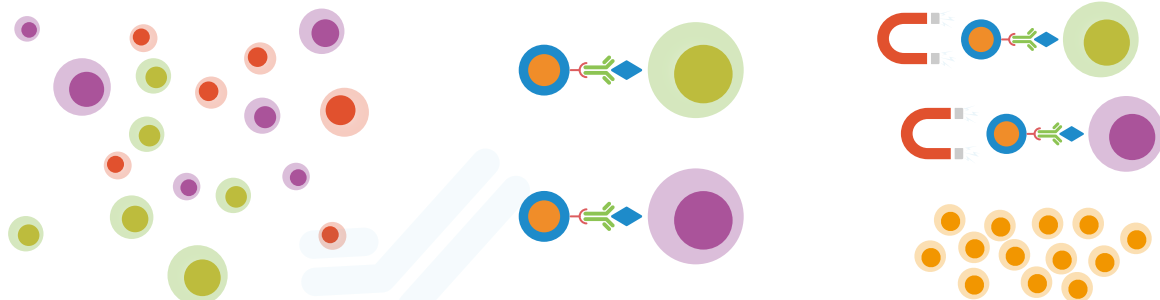
	Product Name	Cat No.	Specification	Storage
Consumables	LarSep Columns	HCSC-25	25pcs/box	Room Temperature
	LarSep Columns	HCSC-10	10pcs/box	
	LSC Separator (single channel)	LSC-S1	1 pcs	
	Separation stand	SS01	1 pcs	
	Cell Separation assembly kit (single channel)	CSAK-01	1 set	



Nano-Beads Cell Separation Platform Column Free

— Flexible 、simple and rapid cell pre-enrichment —

Product Principle

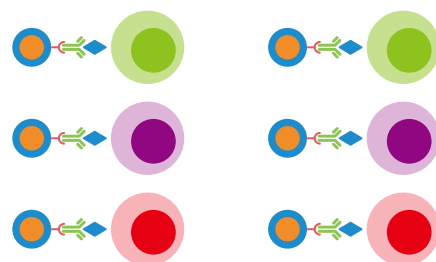


Nano-Bead Cell Separation Platform (Column Free), by adding biotin-antibodies to PBMC or single cell suspension to label non-target cells (negative selection), and then binding streptavidin magnetic beads to labeled non-target cells. The target cells without contact with magnetic beads can be separated quickly, easily and in large numbers.

Product Component

Nano-Beads

- Combined with streptavidin
- Good biocompatibility
- Degradable and not affect the cell state
- Good stability & dispersion



Cell Separation Kits

- Labeled with antibody and Nano-Beads
- Rich in species, including various human and mouse antibodies
- High purity & good viability



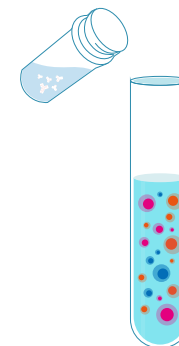
Magnetic cell separator (CF)

- Single channel
- High intensity magnetic field
- With 5ml round bottom tube



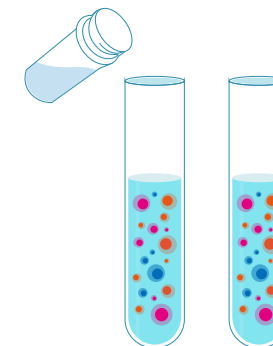
Experimental Process

1



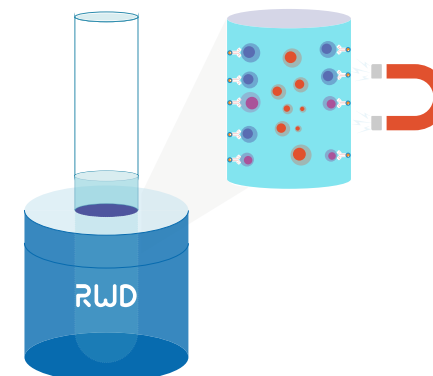
Biotin antibodies are added to the cell suspension and incubated.

2



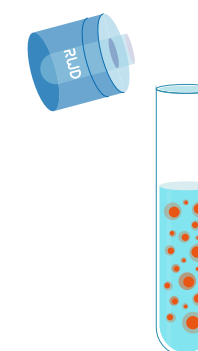
Nano-beads are added to the cell suspension and incubated.

3



The cell suspension was inserted into the RWD Magnetic cell separator (CF). Let the adsorption stand for 5 minutes.

4



The cell suspension is poured into the new tube slowly, the target cell can be recovered and enriched.

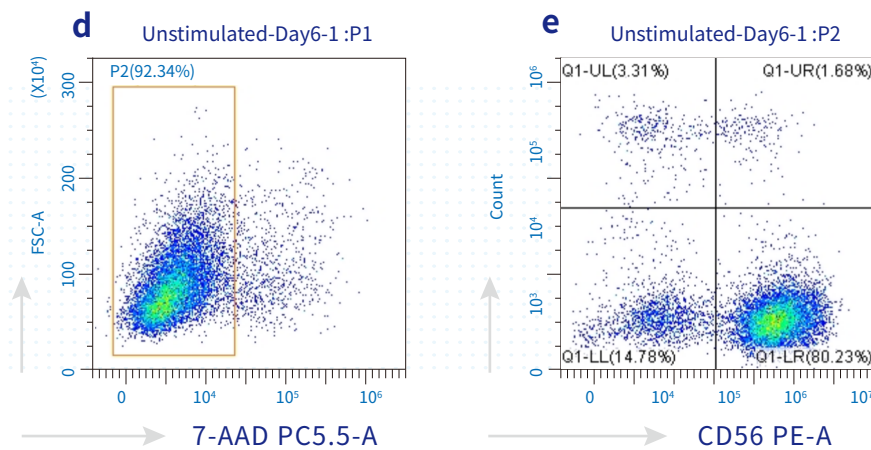
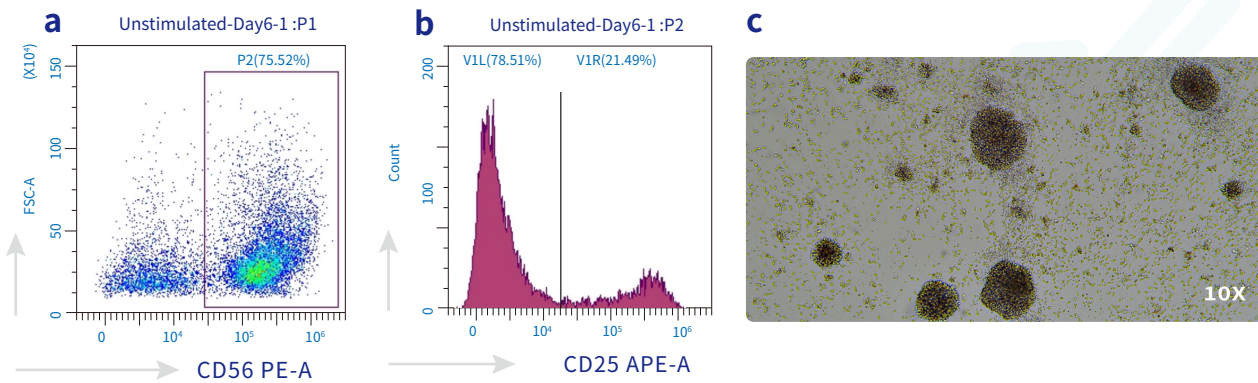
Experimental Process



- Nano-Beads** — mild & low stimulation
- Magnetic adsorption** — strong & sensitive
- Column free** — fast sorting & low cost
- Negative sorting** — get truly untouched cells
- Wide application** — direct cell experiments

Data Presentation

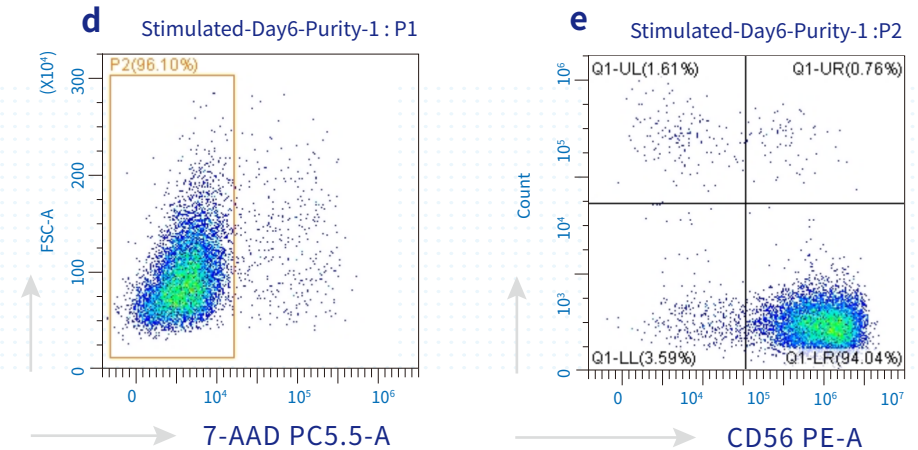
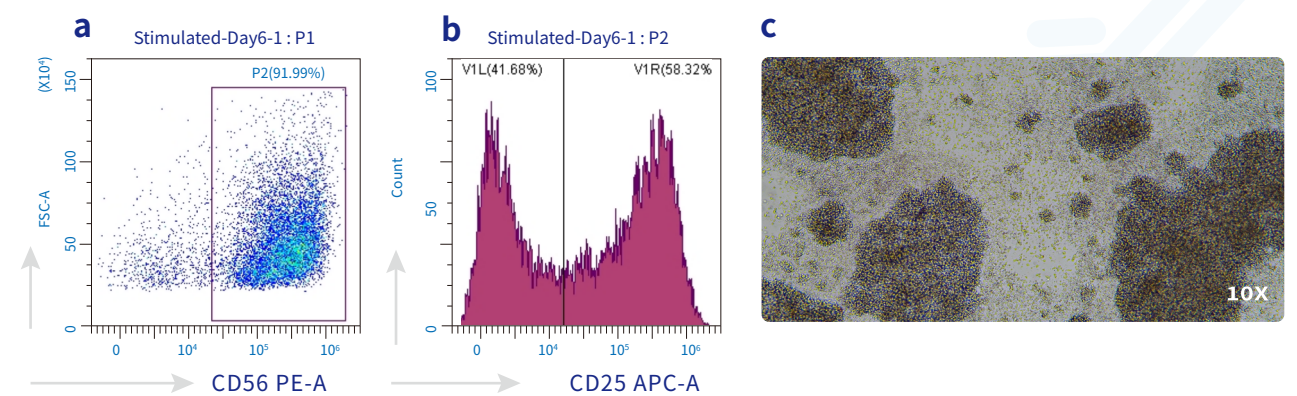
Human NK Cell isolation Kit-CF(RUO)



Control, Unstimulate

- a Enriched human NK cells were cultured after 6 days without activation ,which analysis by flow cytometry.
- b CD25 expression of enriched human NK cells were cultured after 6 days without activation.
- c Cell culture state of enriched human NK cells were cultured after 6 days without activation.
- d Cell activity of enriched human NK cells were cultured after 6 days without activation.
- e After using Human NK Cell isolation Kit-CF (RUO) again, cell purity of enriched human NK cells were cultured after 6 days without activation.

Data Presentation



Case, Stimulate

- a Enriched human NK cells were cultured after 6 days activated by IL-2 ,which analysis by flow cytometry.
- b CD25 expression of enriched human NK cells were cultured after 6 days, which activated by IL-2.
- c Cell culture state of enriched human NK cells were cultured after 6 days, which activated by IL-2.
- d Cell activity of enriched human NK cells were cultured after 6 days, which activated by IL-2.
- e After using Human NK Cell isolation Kit-CF (RUO) again, cell purity of enriched human NK cells were cultured after 6 days activated by IL-2.