EasyIso™ 链霉亲和素磁珠

Catalog #S2001ori

#Version 01

Immuno-X ™

Eynos LifeScience co., Ltd

Make Research Easier

产品简介

本产品为链霉亲和素纳米磁珠，专用于细胞分离。采用生物素标记的抗体结合目的细胞后，通过离心去除游离的生物素抗体，再和链霉亲和素磁珠孵育，能够实现磁珠和目的细胞的结合，可用于后续的阴选和阳选。

· 粒径300 nm

· 浓度为10 mg/mL

· 大小均一，仅需5分钟，即可高效结合生物素

试剂盒组分

产品名称	存储条件	缓冲液成分	功能
EasyIso ™ Streptavidin Nanobeads	4°C保存，避免冷冻	PBS, 0.1% BSA	磁珠结合生物素抗体标记的细胞

BSA - bovine serum albumin; PBS - phosphate-buffered saline

运输条件： 4°C运输

设备和试剂要求

· 缓冲液：FACS Buffer (1 x PBS+0.02% EDTA+2% FBS)

· 耗材：70 μm无菌尼龙滤网；无菌离心管

· 仪器：离心机，磁力架

温馨提示

· 磁珠不可冻存

· 为减少磁珠损失，每次磁性分离的时间应不少于 1 min

· 从磁珠保存管中移取磁珠前应充分震荡重悬均匀

· 操作过程中应避免产生气泡。

操作步骤

步骤	说明	剂量和时间
1	准备待分离的细胞，调整为适合的浓度	1 x 10^8 cells/mL
2	加入生物素标记的抗体Cocktail至样品中，标记目的细胞	100 µL/mL
3	生物素抗体和细胞混合孵育	常温孵育10 min
4	可选：加入10倍体积的FACS buffer, 500 g离心5分钟，去除上清 本步骤目的是降低游离生物素抗体对链霉亲和素磁珠的竞争性抑制作用	500 g离心5分钟
5	采用FACS buffe重悬细胞	1 x 10^8 cells约1mL体积
6	震荡混匀 Streptavidin Nanobeads	混匀30 s
7	加Streptavidin Nanobeads至样品中	100 µL/mL
8	轻柔混匀磁珠和细胞，孵育	常温孵育5 min
9	加入FACS Buffer到样品中，轻轻混匀	总体积加入至2.5 mL （5 mL流式管） 总体积加入至 7.5 mL (15 mL离心管)
10	样品置于磁力架上，使磁珠吸附	单孔磁力架吸附（3 min） 联排磁力架吸附（5 min）
11	阴选：倾斜磁力架，将样品倒入新的收集管中，收集样品 阳选：倾斜磁力架，将样品倒掉，再将样品管从磁力架中取下，收集目的细胞。	细胞分离成功

EasyIso™ Human CD3 T cell Isolation Kits

Catalog #SN3101

For processing 1x10^8 cells (SN3101S)
For processing 5x10^8 cells (SN3101M)
For processing 1x10^9 cells (SN3101L)

#Version 01

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Description

This kit uses a negative selection method to isolate CD3 T cells from human PBMCs through column-free magnet. During the separation process, the antibodies and Nanobeads do not contact with the CD3 T cells, allowing for the preservation of the T cells in their most original state.

- Easy to operate
- Purity up to 99%
- Fast, only 18-20 minutes for separation

The kit labels non-CD3 T cells using biotin-conjugated antibodies, followed by incubation with streptavidin-coated magnetic nanoparticles for coupling. The separation is then performed using a magnetic field without column. Desired cells can simply be transferred to a new tube for separation, and the isolated cells can be immediately used for subsequent applications, such as flow cytometry, cell culture, and functional assays.

Component Descriptions

COMPONENT NAME	STORAGE	BUFFER	FUNCTION
EasyIso™ Human CD3 T cell Isolation Cocktail	Store at 4°C. Do not freeze.	PBS, 0.1% BSA	The Isolation Cocktail identifies non-CD3 T cells, marking the non-target cells.
EasyIso™ Streptavidin Nanobeads	Store at 4°C. Do not freeze.	PBS, 0.1% BSA	Streptavidin-coated magnetic nanoparticles bind to non-CD3 T cells, which are then removed using a magnetic rack.

BSA - bovine serum albumin; PBS - phosphate-buffered saline

Components should be shipped at 4°C.

Preparation

- Buffer: FACS Buffer (1 x PBS+0.02% EDTA+2% FBS)
- 70 μm sterile nylon filter; sterile centrifuge tubes
- Centrifuge, Magnetic rack

Note

- It is recommended to use lymphocyte separation medium to isolate PBMCs; red blood cell lysis buffer is not recommended.
- Use FACS buffer instead of PBS during operations to improve cells yield.
- Ensure the osmotic pressure of the FACS buffer is stable, as immune cells are sensitive.
- Maintain sterile techniques at every step to prevent contamination.

Operating Steps

STEPS	INSTRUCTIONS	DOSAGE and TIME
1	Prepare the PBMC single-cell suspension at the indicated concentration	1 x 10^8 cells/mL
2	Add EasyIso™ Human CD3 T cell Isolation Cocktail to the sample	100 µL/mL
3	Mix and incubate	RT for10 min
4	Vortex the Streptavidin Nanobeads	Vortex for 30 s
5	Add Streptavidin Nanobeads to the sample	100 µL/mL
6	Mix and incubate	RT for 5 min
7	Add FACS buffer to the sample	Top up to 2.5 mL (5 mL tube) Top up to 7.5 mL (15 mL tube)
8	Place the tube into the magnet and incubate	RT for 5 min
9	Pick up the magnet, transfer the sample into a new collection tube to collect the sample	Isolated cells are ready for use

Data

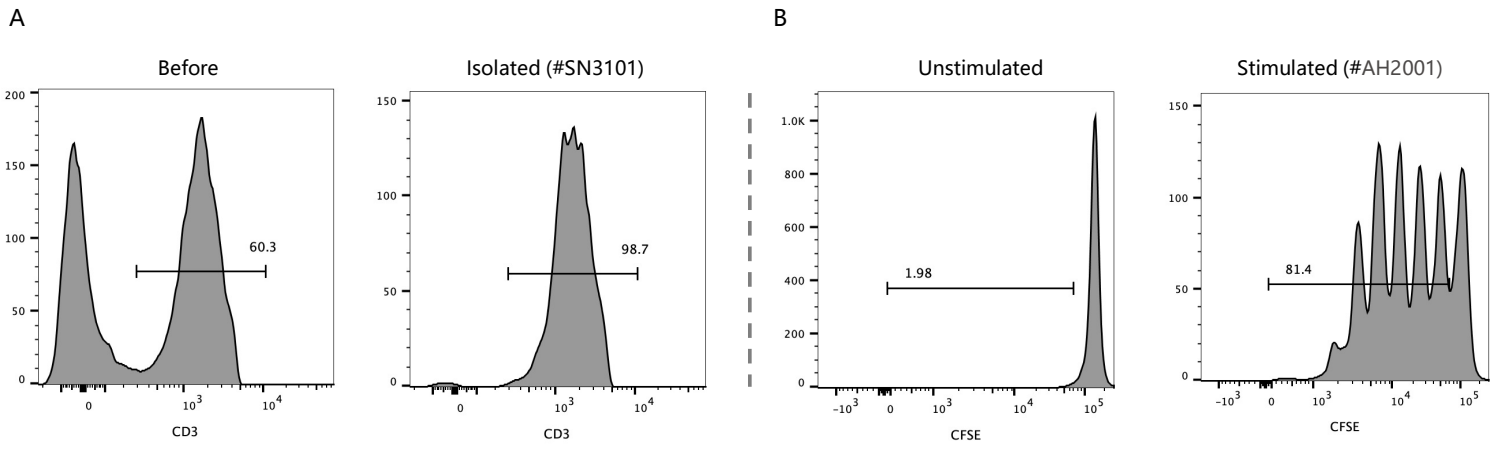

Figure. Using the Immuno-X ™ series products, CD3 T cells are isolated and activated. (A) The CD3 T cells is isolated from healthy human PBMCs, achieving a purity of up to 98.7% with CD3 flow antibodies for staining (#SN3101). (B) CD3 T cells are labeled with CFSE, followed by stimulation using Human ActBeads ™ T cell Activator CD3/CD28 (#AH2001). After 3 days, flow cytometric analysis reveals proliferation of T cells