

MojoSort™ Human CD4 Naïve T Cell Isolation Kit

Catalog# / Size	480041 / 20 tests 480042 / 200 tests
Regulatory Status	RUO
Description	<p>Non-CD4⁺ Naïve T cells are depleted by incubating the sample with the biotin antibody cocktail followed by incubation with magnetic Streptavidin Nanobeads. The magnetically labeled fraction is retained by the use of a magnetic separator. The untouched CD4⁺ Naïve T cells are collected by decanting the liquid in a clean tube. These are the cells of interest; do not discard the liquid. Some of the downstream applications include functional assays, gene expression, phenotypic characterization, etc.</p> <p>MojoSort™ reagents are also compatible with column-based cell separation systems available from other vendors. Optimized protocols for cell separation using columns from in-house testing are provided for each kit under the “Related Protocols” section, as well as representative data on the product webpage (where available). Data generated using column separators are indicated on the figure legend.</p> <p>Due to the property of the beads, MojoSort™ reagents typically require dilution for optimal use on column separators. Where available, recommended dilution factors for each kit component based on in-house testing are provided under the “Application Notes” section of the webpage.</p>

Kit Contents

Kit Contents	For Cat# 480041: <ul style="list-style-type: none">• 200 µl Biotin-Antibody Cocktail• 200 µl Streptavidin Nanobeads For Cat# 480042: <ul style="list-style-type: none">• 2 vials of 1 ml Biotin-Antibody Cocktail each• 2 vials of 1 ml Streptavidin Nanobeads each
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Product Details

Verified Reactivity	Human
Formulation	Cocktail: Phosphate buffer solution containing 0.09% sodium azide, pH 7.2. Streptavidin Nanobeads: Aqueous solution containing BSA and 0.05% sodium azide.
Preparation	The antibodies were purified by affinity chromatography, and conjugated with biotin under optimal conditions. Streptavidin Nanobeads: Streptavidin-coated magnetic beads.
Storage & Handling	Antibody cocktail and Streptavidin Nanobeads should be stored undiluted between 2°C and 8°C.
Application	Cell Separation (MojoSort™) - Quality tested
Recommended Usage	10 µl of antibody cocktail for 1 x 10 ⁷ cells in 100 µl of buffer. 10 µl of Streptavidin Nanobeads for 1 x 10 ⁷ cells in 100 µl of buffer.
Application Notes	<p>This kit is designed for the isolation of untouched naïve CD4⁺ T cells from peripheral blood mononuclear cells (PBMCs).</p> <p>This kit is designed for the MojoSort™ Isolation Kits No Wash Protocol. However, if one wash is added after the incubation with Streptavidin Nanobeads the purity increases about 2 - 4%. Typically without the wash the purity ranges from 91 - 96%. With one wash after the Streptavidin Nanobeads incubation the purity ranges from 93 - 98%. Purity is reported relative to target cells not previously gated on CD4⁺ cells.</p>

Each lot has been individually optimized. Do not mix and match components from different lots or different kits.

Antibody or cocktail dilution to use in column: 15X

Nanobead dilution to use in columns: 3.6X

Additional Product Notes

View more applications data for this product in our [Scientific Poster Library](#).

Product Citations

1. Rafieerad A, *et al.* 2021. Adv Funct Mater. 31:2106786. [PubMed](#)
2. Tian M, *et al.* 2021. Elife. 10:. [PubMed](#)
3. He C, *et al.* 2021. Immunol Cell Biol. 99:611. [PubMed](#)

Antigen Details

Biology Area	Immunology
Molecular Family	CD Molecules
Gene ID	NA

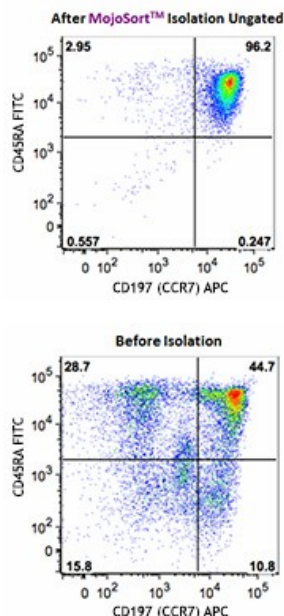
Related Protocols

[MojoSort™ Isolation Kits Protocol - 1](#)

[MojoSort™ Isolation Kits Column Protocol - 1](#)

[MojoSort™ General Protocol - Video](#)

Product Data



PBMCs were to isolate CD4⁺ naïve T cells using the MojoSort™ Human CD4 Naïve T Cell Isolation Kit. Naïve CD4⁺ T Cells are shown in the upper right quadrants as CD45RA and CD197 (CCR7) double positive cells. Cells were stained with CD197 (CCR7) (clone G043H7) APC and CD45RA (clone HI100) FITC. Dead cells were excluded by 7-AAD.

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