

**Fluorescein-Labeled**

**Mouse Anti-Human CD4 Monoclonal Antibody**

**TECHNICAL MANUAL**

**[Product Name]**

Fluorescein-Labeled Mouse Anti-Human CD4 Monoclonal Antibody

**[Catalog No. & Specification]**

Item	Specification	Catalog No.	Usage
CD4-PE-Cy7	100T	A8951	10µl/T

**[Registration Status]**

Research Use Only, RUO

**[Basic Information of the Antigen]**

The protein of CD4 is a membrane glycoprotein of T lymphocytes. The CD4 antigen acts as a coreceptor with the T-cell receptor on the T lymphocyte to recognize antigens displayed by an antigen presenting cell in the context of class II MHC molecules. The CD4 antigen is also a primary receptor for entry of the human immunodeficiency virus through interactions with the HIV Env gp120 subunit. This gene is expressed not only in T lymphocytes, but also in B cells, macrophages, granulocytes, as well as in various regions of the brain. The protein functions to initiate or augment the early phase of T-cell activation, and may function as an important mediator of indirect neuronal damage in infectious and immune-mediated diseases of the central nervous system.

**[Main Components]**

The main component of the product is fluorescein-labeled mouse anti-human CD4 antibody, pH7.2 PBS Buffer, 1% ProClin300.

Specificity	Clone	Subtype	Fluorescence	λ Ex	λ Em
CD4	SK3	IgG1	PE-Cy7	488nm	779nm

**[Storage & Expiration]**

Storage Conditions: 2~8°C, protected from light, **DO NOT FREEZE**.  
Expiration period: 18 months.

Production Date & Expiration Date: Refer to the packaging of the kit.

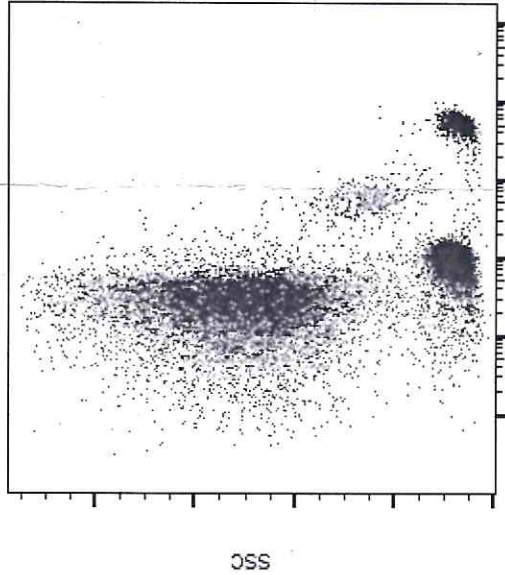
**[Sample Request]**

1. Store peripheral blood or other cell samples at room temperature, best used within 4 hours, can be stored at 4°C for no more than 24 hours.
2. Store samples at 2-8°C after staining and avoid light. If you need to lyse the red blood cells in the sample, you can use it with lysis and test it on flow cytometer within 2 hours.
3. Samples with microbial contamination, lipemia, coagulation and poor cell viability should be avoided unless the sample is irreplaceable, please mark this in the result report. For specimens from patients with, for example, chronic liver disease or hyperlipidemia, hemolysis is unable to completely lyse red blood cells, and density gradient centrifugation can be used to obtain individual nucleated cells.
4. The recommended dosage of this reagent is recommended to be added to 100µL of peripheral blood reaction. If used in other samples or methods, please test the optimal dosage.

**[Test Method]**

1. Take 2 tubes, add 100µL of anticoagulated peripheral blood specimen, then add the recommended amount of the same fluorescein-labeled isotype control and this reagent respectively, and incubate at room temperature (18-25°C) for 15-30 minutes, protected from light.
2. Add 2mL of lysis separately, shake well and incubate for 10 minutes at room temperature (18-25°C) away from light.
3. Centrifuge at 300g for 5 minutes, discard the supernatant, add 2mL of PBS buffer to resuspend the cell precipitate, and shake well.
4. Centrifuge at 300g for 5 minutes, discard the supernatant, add 300µL PBS buffer to resuspend the cell precipitate, and incubate for 2 hours at 4°C, protected from light. If delayed detection (more than 2 hours) is required, use 300µL of PBS buffer containing 1% paraformaldehyde to resuspend the cell precipitate and store at 2-8°C, protected from light, but the fixation time should not exceed 24 hours.

[Example]



This flowcytometry chart is a two-parameter scatter plot of peripheral blood cells, with the horizontal coordinates indicating the fluorescence intensity signal and the vertical coordinates indicating the SSC signal. Blue dots are isotype control staining results and red dots are CD4-PE-Cy7 antibody reagent staining results.

[Limitations of the Method]

1. If the flow cytometer is not calibrated, or if the fluorescence compensation is insufficient and the gate is incorrectly positioned, false results may be generated.
2. To obtain the optimum signal-to-noise ratio, the antibodies have been calibrated, so please use the reagents strictly in accordance with their recommended dosage.
3. The data measured with this product are not directly comparable with similar data obtained by other methodological reagents or instruments.

[Cautions]

1. Materials such as biological samples, quality control/calibrators, and experimental waste should be handled as potentially infectious materials and disposed of using precautions that comply with regulations.
2. If the concentration of target cells in the sample is too low or too high, special treatment (such as diluting the blood sample or increasing the cell concentration) should be used before staining.
3. This product contains fluorescence. Do not come into direct contact with skin or food and be sure to wear gloves when handling.
4. This product is for research purposes only, not for in vitro diagnostic use.

[Edition]

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[Basic Information]

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