Fluorescein-Labeled Mouse Anti-Human CD34 Monoclonal Antibody TECHNICAL MANUAL

[Product Name]

Fluorescein-Labeled Mouse Anti-Human CD34 Monoclonal Antibody

[Catalog No. & Specification]

Item	Specification	Catalog No.	Usage
CD34-FITC	100T	A6552	20μl/T
CD34-PE	100T	A6553	20μl/T
CD34-PerCP	100T	A6554	10μl/T
CD34-PerCP-Cy5.5	100T	6610409	20μl/T
CD34-APC	100T	A6555	20μl/T
CD34-APC-QB710	100T	A0041	10μl/T

[Registration Status]

Research Use Only, RUO

[Basic Information of the Antigen]

CD34, also known as gp105-120, is a type I monomeric sialomucin-like glycophosphoprotein with an approximate molecular weight of 105-120 kD. Since it is selectively expressed on the majority of hematopoietic stem/progenitor cells, bone marrow stromal cells, capillary endothelial cells, embryonic fibroblasts, and some nervous tissue, CD34 is a commonly used marker to identify human hematopoietic stem/progenitor cells. According to the differential sensitivity to enzymatic cleavage, four groups of epitopes of CD34 have been described. CD34 mediates cell adhesion and lymphocytes homing through binding to L-selectin and E-selectin ligands. About 40% of acute myeloid leukemias and 65% of pre-B acute lymphoblastic leukemias express CD34, whereas only 1-5% of acute T-lymphoid leukemias are CD34 positive.

[Main Components]

The main component of the product is fluorescein-labeled mouse anti-human CD34 antibody, pH7.2 PBS Buffer, 0.2%BSA and 0.1% ProClin300.

Specificity	Clone	Subtype	Fluorescence	λ Ex	λ Em
CD34	4H11	IgG1	FITC	488nm	525nm
			PE	488nm	575nm
			PerCP	488nm	678nm
			PerCP-Cy5.5	488nm	695nm
			APC	633nm	660nm
			APC-QB710	633nm	710nm

[Storage & Expiration]

Storage Conditions: 2~8℃, protected from light, **DO NOT FREEZE**.

Expiration period: 18 months.

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

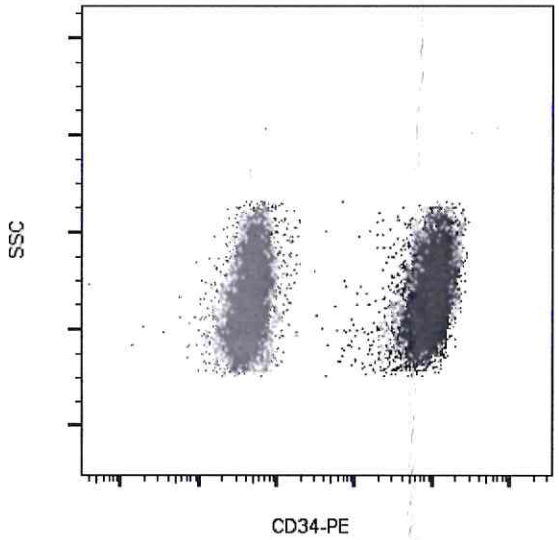
[Sample Request]

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, hemolysin 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℃) 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℃) 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 KG1a 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 CD34-PE 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]

Ver. 1.0, September 1, 2022

Ver. 2.0, November 8, 2022

[Basic Information]

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