Anti-Human CD8a-FITC/CD4-PE/CD3-PE/Cyanine7/CD45-PerCP Cocktail

Catalog No.	E-AB-FC0010	**Reactivity**	Human
Storage	Store at 2~8℃, Avoid freeze / thaw cycles	**Applications**	FCM

Important Note: Centrifuge before opening to ensure complete recovery of vial contents.

Antigen Information

Background

This product is a FCM antibody cocktail made up of FITC Anti-Human CD8a Antibody [Clone: OKT-8] (Mouse IgG2a, κ), PE Anti-Human CD4 Antibody [Clone: RPA-T4] (Mouse IgG1, κ), PE/Cyanine7 Anti-Human CD3 Antibody [Clone: OKT-3] (Mouse IgG2a, κ) and PerCP Anti-Human CD45 Antibody [Clone: HI30] (Mouse IgG1, κ).
CD8 is mainly expressed on cytotoxic T cells and also some subpopulations of NK cells. CD8 forms dimer function. In most cells, CD8 is a heterodimer consisting of CD8a and CD8b, but in NK cells nearly all CD8 is homodimer of CD8a. CD8a can form co-receptor with MHC-I restricted TCR to promote T cell antigen recognition and activation.
CD4 is also called Leu-3 or T4. It's a single-chain type I transmembrane glycoprotein, mainly expressed on the surface of T cells, and monocytes/macrophages. In T cells, CD4 forms complex with TCR/CD3 and play important roles in T cell immunity. The target of HIV is CD4+ T cells. Reduction of CD4+ T cells is the main reason of defected immunity after HIV infection.
CD3 is a heterotetrameric protein consisting of a CD3γ, a CDδ and 2 CD3ε. It forms complex with TCR. OKT-3 recognize human CD3ε. Human CD3 is expressed on the surface of T cells and NKT cells.
CD45 is a single-chain type I transmembrane glycoprotein. Except for erythrocytes and platelets, CD45 is expressed on nearly all of the hematopoietic cells with high level. It is a common marker for blood leukocytes. CD45 is a receptor type protein tyrosine phophatase and plays essential roles in B cell and T cells signaling.

Product Details

Size	20Tests/100Tests/100Tests×2
Clone No.	OKT-8,RPA-T4,OKT-3,HI30
Reactivity	Human
Application	FCM
Storage Buffer	Phosphate buffered solution, pH 7.2, containing 0.09% stabilizer and 1% protein protectant.
Shipping	Biological ice pack at 4 ℃
Stability & Storage	Keep as concentrated solution. Store at 2~8℃ and protected from prolonged exposure to light.Do not freeze. This product is guaranteed up to one year from purchase.

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Fluorophore

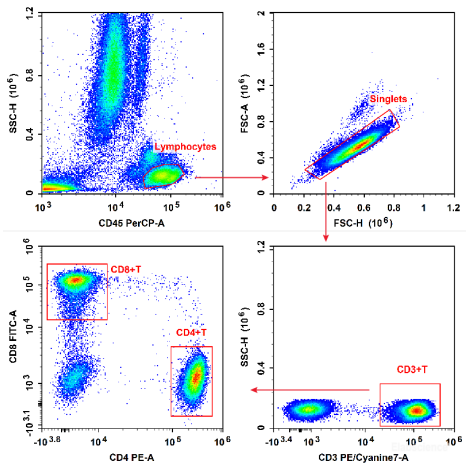
Conjugation: FITC,PE,PE/Cyanine7,PerCP

FITC is designed to be excited by the Blue laser (488 nm) and detected using an optical filter centered near 530 nm (e.g., a 525/40 nm bandpass filter). PE is designed to be excited by the Blue (488 nm), Green (532 nm) and Yellow-Green (561 nm) lasers and detected using an optical filter centered near 575 nm (e.g., a 585/42 nm bandpass filter). PE/Cyanine7 is designed to be excited by the Blue (488 nm), Green (532 nm) and yellow-green (561 nm) lasers and detected using an optical filter centered near 775 nm (e.g., a 780/60 nm bandpass filter). PerCP is designed to be excited by the blue laser (488 nm) and detected using an optical filter centered near 675 nm (e.g., a 690/50 nm bandpass filter).

Recommended usage

For whole blood samples, add 5 μL Anti-Human CD8a-FITC/CD4-PE/CD3-PE/Cyanine7/CD45-PerCP Cocktail to 100 μL anticoagulant-treated blood sample. Mix and incubate the sample at 4°C in the dark for 30 min. Remove red blood cells with RBC lysis solution following the manufacturer's instruction. Wash the cell with cell staining buffer and discard the supernatant after centrifugation at 300 g for 5 min. Resuspend the cells with 200 μL cell staining buffer and load the sample on flow cytometer for detection.
For other samples, 1×10^6 dissociated single cells are centrifuged at 300 g for 5 min with the supernatant discarded. Resuspend the cells with 100 μL cell staining buffer and add 5 μL Anti-Human CD8a-FITC/CD4-PE/CD3-PE/Cyanine7/CD45-PerCP Cocktail. Mix and incubate the sample at 4°C in the dark for 30 min. Add cell staining buffer to each tube, centrifuge at 300 g for 5 min and discard the supernatant. Resuspend the cells with 200 μL cell staining buffer and load the sample on flow cytometer for detection.

Product data



Human peripheral blood lymphocytes are stained with Anti-Human CD8a-FITC/CD4-PE/CD3-PE/Cyanine7/CD45-PerCP Cocktail.

Related Information

1. Sample Preparation for Flow Cytometry https://www.elabscience.com/List-detail-5594.html
2. Staining Cell Surface Targets for Flow Cytometry https://www.elabscience.com/List-detail-5568.html
3. Flow Cytometry Troubleshooting Tips https://www.elabscience.com/List-detail-5593.html
4. How to select the appropriate detection channel through the spectrogram? https://www.elabscience.com/List-detail-459742.html

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