

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

<b>Catalog No.</b>	E-AB-FC0009	<b>Reactivity</b>	Human
<b>Storage</b>	Store at 2~8°C, Avoid freeze / thaw cycles	<b>Applications</b>	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 CD3 Antibody [Clone: OKT-3] (Mouse IgG2a, κ), PE Anti-Human CD4 Antibody [Clone: RPA-T4] (Mouse IgG1, κ), PE/Cyanine7 Anti-Human CD8a Antibody [Clone: OKT-8] (Mouse IgG2a, κ) and PerCP Anti-Human CD45 Antibody [Clone: HI30] (Mouse IgG1, κ).

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.

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.

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.

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 phosphatase and plays essential roles in B cell and T cells signaling.

### Product Details

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

#### For Research Use Only

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Applications: Activ- Activation; Block- Blocking; Separation- Cell Separation ; Cell Sep-Neg- Cell Separation by Negative Selection; FA- Functional Assay; Neut- Neutralization; Stim- Stimulation; FCM- Flow Cytometry; ICFM: Intracellular Staining for Flow Cytometry; WB- Western Blotting; IHC- Immunohistochemistry; IF- Immunofluorescence; IP- Immunoprecipitation

## Fluorophore

**Conjugation:** FITC,PE,PE/Cyanine7,PerCP

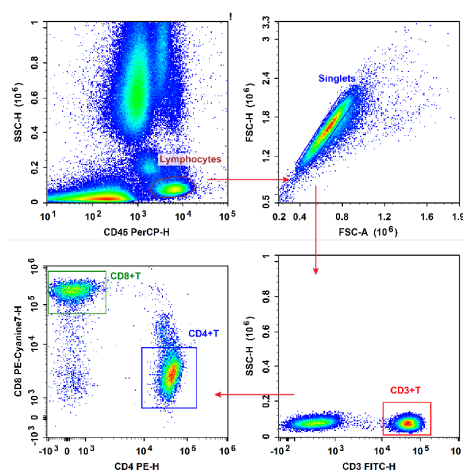
FITC is designed to be excited by the Blue laser (488 nm) and detected using an optical filter centered near 530 nm (e.g., a 525/40 nm bandpass filter). PE is designed to be excited by the Blue (488 nm), Green (532 nm) and Yellow-Green (561 nm) lasers and detected using an optical filter centered near 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 CD3-FITC/CD4-PE/CD8a-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,  $1 \times 10^6$  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 CD3-FITC/CD4-PE/CD8a-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 CD3-FITC/CD4-PE/CD8a-PE-Cyanine7/CD45-PerCP.

## 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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