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

Catalog Number: GFH0022

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

Description

Reactivity	Human
Clone No.	OKT-3,SK1,HI30,SK3
Conjugation	FITC;PE;PerCP;APC
Conjugation Information	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). 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). APC is designed to be excited by the Red (627-640 nm) laser and detected using an optical filter centered near 660 nm (e.g., a 660/20 nm bandpass filter).
Storage Buffer	Phosphate buffered solution, pH 7.2, containing 0.09% sodium azide and 1% BSA.

Applications	Recommended usage
FCM	Each lot of this antibody is quality control tested by flow cytometric analysis. **The amount of the reagent is suggested to be used 5 μL of antibody per test (million cells in 100 μL staining volume or per 100 μL of whole blood).** Please check your vial before the experiment. Since applications vary, the appropriate dilutions must be determined for individual use.

Preparation & Storage

Storage	Keep as concentrated solution. This product can be stored at 2-8°C for 12 months. Please protected from prolonged exposure to light and do not freeze.
Shipping	Ice bag

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 CD8a Antibody [Clone: SK1] (Mouse IgG1, κ),PerCP Anti-Human CD45 Antibody [Clone: HI30] (Mouse IgG1, κ)and APC Anti-Human CD4 Antibody [Clone: SK3] (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.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 phophatase and plays essential roles in B cell and T cells signaling.

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.