

Anti-human CD4 Monoclonal Antibody Biotin Conjugated, Flow Validated

Catalog Number: FC00344-Biotin

Introduction

CD4 is a 55kD type I transmembrane glycoprotein and a member of the immunoglobulin superfamily. It is a specific marker for T lymphocytes, monocytes, macrophages, and dendritic cells. Through interaction of MHC-II, CD4 facilitates cell-cell interaction, thymic differentiation, and activation of downstream signaling cascades. HIV infection of T-cells is instigated through binding of HIV to CD4. The OKT4 antibody binds to the D3 domain of CD4 and does not inhibit HIV binding.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development by CapricoBio or are reported in the literature.

Application Information

Each lot of this antibody has been pre-titrated and tested by flow cytometric analysis of human PBMCs such that 5ul of this product is sufficient for staining of 1 million cells in a 100ul staining volume or 100ul of whole blood. This biotin conjugated antibody can be easily detected by any fluorochrome conjugated streptavidin. It is recommended that antibody reactivity be empirically titrated for optimal performance in the application of interest.

About CD4

CD stands for "cluster of differentiation"; the number that follows is arbitrarily assigned. In the full designation the cell type and nature and molecular weight of the antigen are given in brackets; for CD4, this is as follows: [T, gp55]. CD4 is present on a subset of T lymphocytes ("helper/inducer" T cells) and is also expressed at a lower level on monocytes, tissue macrophages and granulocytes. The antigen is involved in binding to MHC class II molecules. The intracellular domain of the antigen is associated with p56lck protein tyrosine kinase.

Overview

Product Name	Anti-human CD4 Monoclonal Antibody Biotin Conjugated, Flow Validated
Reactive Species	Cynomolgus monkey, Human, Rhesus monkey
Description	Boster Bio Anti-human CD4 Monoclonal Antibody Biotin Conjugated, Flow Validated (Catalog# FC00344-Biotin). Tested in Flow Cytometry application(s). This antibody reacts with Human, Rhesus monkey, Cynomolgus monkey.
Conjugate	Biotin
Application	Flow Cytometry
Clonality	Monoclonal Clone: OKT4
Formulation	PBS pH 7.2, 0.09% sodium azide
Storage Instructions	Store at 2-8°C. Avoid repeated freeze-thaw cycles.
Host	Mouse

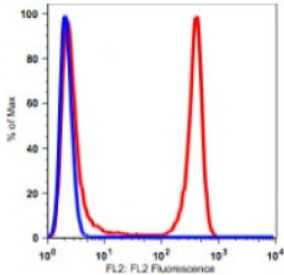
Uniprot ID

P01730

Technical Details

Immunogen	Human peripheral blood T lymphocytes
Isotype	IgG2b,k
Form	Liquid
Concentration	0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Purification	Protein A purified
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>User needs to optimize the dilution ratio for this antibody.</p>

Anti-human CD4 Monoclonal Antibody Biotin Conjugated, Flow Validated (FC00344-Biotin) Images



Lymphocytes gated PBMCs stained with biotin conjugated mouse anti-human CD4 followed by staining with SA-PE (clone OKT-4, red histogram). PBMCs lymphocytes stained with isotype control IgG2b biotin followed by SA-PE (blue histogram)

3 Publications Citing This Product

1. PubMed ID: 15133849, Effect of Hejie decoction on T cell immune state of chronic hepatitis B patients
2. PubMed ID: 25816072, Xu Y, Tan X, Wang D, Wang W, Li Y, Wu M, Chen S, Wu Y, Tan C. Int J Mol Med. 2015 Jun;35(6):1501-10. Doi: 10.3892/Ijmm.2015.2154. Epub 2015 Mar 24. Elevated Survivin Expression In Peripheral Blood Mononuclear Cells Is Central To Collateral Formati...
3. PubMed ID: 23308369, Ouyang W, An T, Guo D, Wu S, Tien P. Aids Res Hum Retroviruses. 2013 Mar;29(3):613-20. Doi: 10.1089/Aid.2012.0059. Epub 2013 Jan 11. The Potent Human Immunodeficiency Virus Type 1 (Hiv-1) Entry Inhibitor Hr212 Blocks Formation Of The Envelope Glyc...

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