

Datasheet for ABIN94089
anti-CD4 antibody (N-Term) (Biotin)[2 Images](#)[6 Publications](#)[Go to Product page](#)

Overview

Quantity:	0.1 mg
Target:	CD4
Binding Specificity:	N-Term
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD4 antibody is conjugated to Biotin
Application:	Flow Cytometry (FACS), Western Blotting (WB)

Product Details

Immunogen:	2 N-terminal domains of human CD4 fused to human IgG1 Fc
Clone:	MEM-241
Isotype:	IgG1
Specificity:	The antibody MEM-241 recognizes an extracellular epitope of CD4 antigen, a 55 kDa transmembrane glycoprotein expressed on a subset of T lymphocytes ("helper", T-cells) and also on monocytes, tissue macrophages and granulocytes.
Cross-Reactivity (Details):	Human, Other not tested
Purification:	Purified antibody is conjugated with biotin LC-NHS ester under optimum conditions and unconjugated antibody and free biotin are removed by size-exclusion chromatography.

Target Details

Target:	CD4
Alternative Name:	CD4 (CD4 Products)
Background:	<p>CD4 Molecule,CD4 (T4) is a single chain transmembrane glycoprotein and belongs to immunoglobulin supergene family. In extracellular region there are 4 immunoglobulin-like domains (1 Ig-like V-type and 3 Ig-like C2-type). Transmembrane region forms 25 aa, cytoplasmic tail consists of 38 aa. Domains 1,2 and 4 are stabilized by disulfide bonds. The intracellular domain of CD4 is associated with p56Lck, a Src-like protein tyrosine kinase. It was described that CD4 segregates into specific detergent-resistant T-cell membrane microdomains. Extracellular ligands: MHC class II molecules (binds to CDR2-like region in CD4 domain 1), HIV envelope protein gp120 (binds to CDR2-like region in CD4 domain 1), IL-16 (binds to CD4 domain 3), human seminal plasma glycoprotein gp17 (binds to CD4 domain 1), L-selectin. Intracellular ligands: p56LckCD4 is a co-receptor involved in immune response (co-receptor activity in binding to MHC class II molecules) and HIV infection (human immunodeficiency virus, CD4 is primary receptor for HIV-1 surface glycoprotein gp120). CD4 regulates T-cell activation, T/B-cell adhesion, T-cell differentiation, T-cell selection and signal transduction. Defects in antigen presentation (MHC class II) cause dysfunction of CD4+ T-cells and their almost complete absence in patients blood, tissue and organs (SCID immunodeficiency),.T4/Leu-3, L3T4</p>
Gene ID:	920
UniProt:	P01730
Pathways:	TCR Signaling , Maintenance of Protein Location , CXCR4-mediated Signaling Events

Application Details

Application Notes:	Flow cytometry: Recommended dilution: 1 µg/mL, positive control: peripheral blood, HPB T cell line. This antibody is excellent antibody for FC application.
Comment:	The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Do not freeze. Avoid prolonged exposure to light.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

Product cited in: Hovden, Karlsen, Jonsson, Aarstad, Appel: "Maturation of monocyte derived dendritic cells with OK432 boosts IL-12p70 secretion and conveys strong T-cell responses." in: **BMC immunology**, Vol. 12, pp. 2, (2011) ([PubMed](#)).

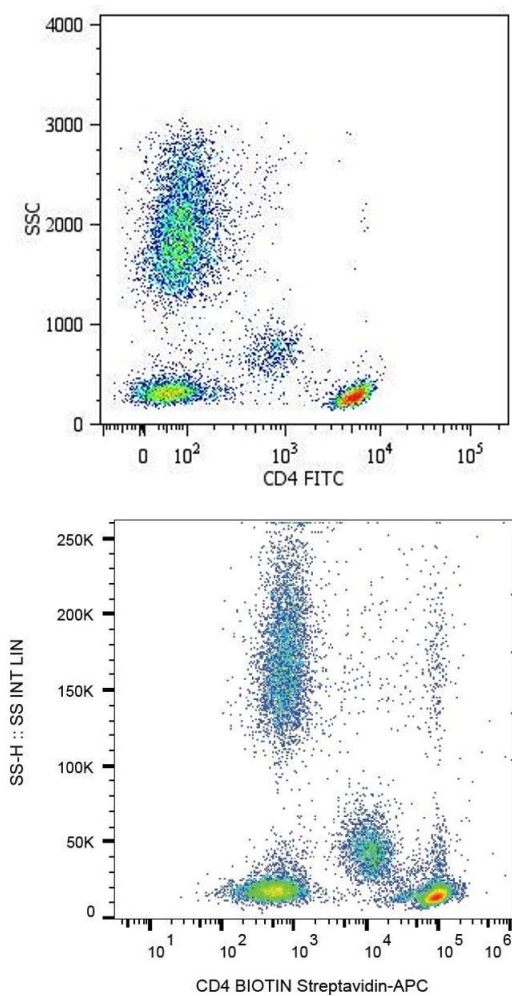
Anderson, Sayers, Haniffa, Swan, Diboll, Wang, Isaacs, Hilken: "Differential regulation of naïve and memory CD4+ T cells by alternatively activated dendritic cells." in: **Journal of leukocyte biology**, Vol. 84, Issue 1, pp. 124-33, (2008) ([PubMed](#)).

Karlsson, Cowley, Martinez, Shaw, Minger, James: "Homogeneous monocytes and macrophages from human embryonic stem cells following coculture-free differentiation in M-CSF and IL-3." in: **Experimental hematology**, Vol. 36, Issue 9, pp. 1167-75, (2008) ([PubMed](#)).

Manasa, Musabaike, Masimirembwa, Burke, Luthy, Mudzori: "Evaluation of the Partec flow cytometer against the BD FACSCalibur system for monitoring immune responses of human immunodeficiency virus-infected patients in Zimbabwe." in: **Clinical and vaccine immunology : CVI**, Vol. 14, Issue 3, pp. 293-8, (2007) ([PubMed](#)).

Zola, Swart, Banham, Barry, Beare, Bensussan, Boumsell, D Buckley, Bühring, Clark, Engel, Fox, Jin, Macardle, Malavasi, Mason, Stockinger, Yang: "CD molecules 2006--human cell differentiation molecules." in: **Journal of immunological methods**, Vol. 319, Issue 1-2, pp. 1-5, (2007) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



Flow Cytometry

Image 1. Surface staining of human peripheral blood cells with anti-human CD4 (MEM-241) FITC.

Flow Cytometry

Image 2. Surface staining of human peripheral blood cells with anti-human CD4 (MEM-241) biotin, streptavidin-APC.