

Datasheet for ABIN94103 **anti-CD4 antibody**

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Overview

Quantity:	100 µg
Target:	CD4
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD4 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunoprecipitation (IP)

Product Details

Purpose:	Anti-Hu CD4 Purified
Immunogen:	HPB cell line (human peripheral blood leukemia T-cells)
Clone:	MEM-16
Isotype:	IgM
Specificity:	The antibody MEM-16 recognizes an extracellular epitope in EF loop of D1 domain 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.
No Cross-Reactivity:	Pig
Cross-Reactivity (Details):	Human
Purification:	Purified by sequential steps of physicochemical fractionation (differential precipitation and solid-phase chromatography methods).

Product Details

Purity: > 95 % (by SDS-PAGE)

Target Details

Target: CD4

Alternative Name: CD4 ([CD4 Products](#))

Background: 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: p56Lck. CD4 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

Gene ID: 920

UniProt: [P01730](#)

Pathways: [TCR Signaling](#), [Maintenance of Protein Location](#), [CXCR4-mediated Signaling Events](#)

Application Details

Application Notes: Flow cytometry: Recommended dilution: 1-4 µg/mL, positive control: peripheral blood lymphocytes.

Restrictions: For Research Use only

Handling

Concentration: 1 mg/mL

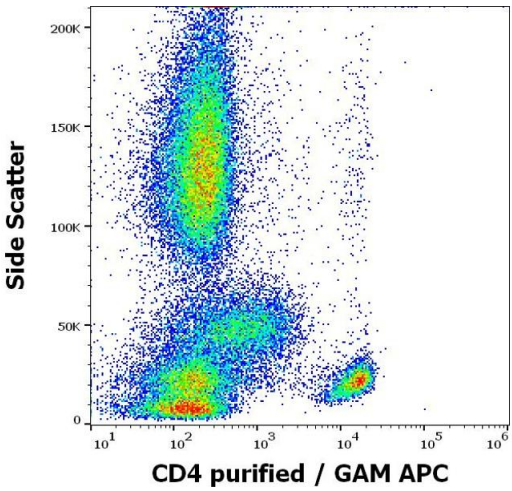
Handling

Buffer:	Tris buffered saline (TBS), pH 8.0, 15 mM sodium azide
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.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

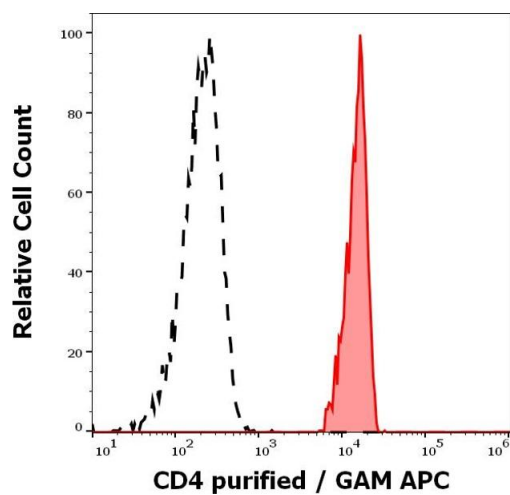
Product cited in:	Brdicková, Brdicka, Angelisová, Horváth, Spicka, Hilgert, Paces, Simeoni, Kliche, Merten, Schraven, Horejsí: "LIME: a new membrane Raft-associated adaptor protein involved in CD4 and CD8 coreceptor signaling." in: The Journal of experimental medicine , Vol. 198, Issue 10, pp. 1453-62, (2003) (PubMed).
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Images



Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD4 (MEM-16) purified antibody (concentration in sample 4 µg/mL, GAM APC).



Flow Cytometry

Image 2. Separation of human CD4 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD4 (MEM-16) purified antibody (concentration in sample 4 μ g/mL, GAM APC).