CD4 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CD4, Monoclonal Antibody
Full Product Name	CD4 antibody (biotin)
Product Gene Name	anti-CD4 antibody
Product Synonym Names	Monoclonal CD4; Anti-CD4; Leu3; W3/25; Lymphocyte antigen CD4; CD-4; CD 4; MGC165891; T cell OKT4 deficiency; T-cell surface antigen T4/Leu-3; included; Ly-4; T Cell Antigen T4; L3T4; CD4 antigen (p55); T Cell Surface Glycoprotein CD4; T cell surface antigen T4/Leu 3; T cell antigen T4/LEU3; T cell surface antigen T4/Leu3; CD4; CD4_HUMAN; T-cell surface glycoprotein CD4; W3/25 antigen; CD4+ Lymphocyte deficiency; CD4mut; T cell differentiation antigen L3T4; p55
Clonality	Monoclonal
Isotype	IgG1
Clone Number	RFT-4G
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, with NaN3 added as preservative.
Concentration	0.2 mg/ml (lot specific)
Specificity	Human
Preparation and Storage	Store at 4 degree C.
Molecular Weight	7,844 Da
3D Structure	ModBase 3D Structure for Q13969
Biohazard Information	This product contains sodium azide as preservative. Although the amount of sodium azide is very small appropriate care must be taken when handling this product.
Tag/Conjugate	Biotin
Immunogen	CD4 antibody (biotin) was raised in mouse using human CD4 as the immunoge.
Product Categories/Family for anti-CD4 antibody	Immunology; Conjugated Monoclonal Antibodies
Applications Tested/Suitable for anti-CD4 antibody	Flow Cytometry (FC/FACS), Immunohistochemistry (IHC), Immunoprecipitation (IP)
Related Product Information for anti-CD4 antibody	MBS532385 is an antibody targeting CD4. Also known as CD4 antibody (biotin). Reactive in Human. Host: Mouse. Mouse monoclonal CD4 antibody (biotin)
Other Notes	Small volumes of anti-CD4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD4. It may not necessarily be applicable to this product.

NCBI GI #	3947700

NCBI GeneID	920
NCBI Accession #	CAA60883.1
UniProt Primary Accession #	Q13969
UniProt Related Accession #	P01730
NCBI Official Full Name	CD4, partial
NCBI Official Synonym Full Names	CD4 molecule
NCBI Official Symbol	CD4
NCBI Official Synonym Symbols	CD4mut
UniProt Protein Name	CD4 protein
UniProt Synonym Protein Names	CD4 protein
Protein Family	T-cell surface glycoprotein
UniProt Gene Name	CD4
UniProt Entry Name	Q13969_HUMAN
NCBI Protein Information	T-cell surface glycoprotein CD4
NCBI Summary for CD4	This gene encodes a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigenes and is also a receptor for the human immunodeficiency virus. This gene is expressed not only in T lymphocytes, but also in B cells, macrophages, and granulocytes. It is also expressed in specific regions of the brain. The protein functions to initiate or augment the early phase of T-cell activation, and may function as an important mediator of indirect neuronal damage in infectious and immune-mediated diseases of the central nervous system. Multiple alternatively spliced transcript variants encoding different isoforms have been identified in this gene. [provided by RefSeq, Aug 2010]
UniProt Comments for CD4	CD4: Accessory protein for MHC class-II antigen/T-cell receptor interaction. May regulate T-cell activation. Induces the aggregation of lipid rafts. Associates with LCK. Binds to HIV-1 gp120 and to P4HB/PDI and upon HIV-1 binding to the cell membrane, is part of P4HB/PDI- CD4-CXCR4-gp120 complex. Interacts with HIV-1 Envelope polyprotein gp160 and protein Vpu. Interacts with Human Herpes virus 7 capsid proteins. Interacts with PTK2/FAK1; this interaction requires the presence of HIV-1 gp120. Protein type: Cell surface; Membrane protein, integral Chromosomal Location of Human Ortholog: 12p13.31 Cellular Component: T cell receptor complex; endoplasmic reticulum membrane; endoplasmic reticulum lumen; early endosome; plasma membrane; integral to membrane; external side of plasma membrane; lipid raft Molecular Function: protein binding; protein homodimerization activity; enzyme binding; transmembrane receptor activity; zinc ion binding; extracellular matrix structural constituent; coreceptor activity; receptor activity; glycoprotein binding; protein kinase binding; MHC class II protein binding Biological Process: maintenance of cellular protein localization; viral reproduction; positive regulation of interleukin-2 biosynthetic process; T cell selection; cytokine production; positive regulation of calcium-mediated signaling; induction by virus of cell-cell fusion in host; signal transduction; defense response to Gram-negative bacterium; T cell receptor signaling pathway; enzyme linked receptor protein signaling pathway; regulation of defense response to virus by virus; positive regulation of peptidyl-tyrosine phosphorylation; cell surface receptor linked signal transduction; positive regulation of protein kinase activity; protein palmitoleylation; T cell costimulation; innate immune response; immune response; entry into host cell; transmembrane receptor protein tyrosine kinase signaling pathway; T cell differentiation; regulation of T cell activation Disease: Okt4 Epitope Deficiency
Research Articles on CD4	**1.** The study shows that activated CD4+ T cells can produce 1,25(OH)2D3, and that 1,25(OH)2D3 induces a 2-fold up-regulation of the VDR protein expression in activated CD4+ T cells by protecting the VDR against proteasomal degradation.

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