CD4 ELISA Kit for Rabbit

PRODUCT OVERVIEW

Product Name	CD4, ELISA Kit
Full Product Name	Rabbit CD4 (Cluster of Differentiation 4) ELISA Kit
Product Gene Name	CD4 elisa kit
Species Reactivity	Rabbit
Assay Type	Quantitative Sandwich
Samples	Serum, plasma and other biological fluids
Detection Range	1.56-100ng/mL
Sensitivity	0.94ng/mL
Specificity	This kit recognizes Rabbit CD4 in samples. No significant cross-reactivity or interference between Rabbit CD4 and analogues was observed.
Preparation and Storage	Store at 4 degree C.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, mid range and high level Rabbit CD4 were tested on 3 different plates, 20 replicates in each plate.
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, mid range and high level Rabbit CD4 were tested 20 times on one plate, respectively.
Molecular Weight	7,844 Da
3D Structure	ModBase 3D Structure for Q13969
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CD4 elisa kit	Intended Uses: This ELISA kit applies to the in vitro quantitative determination of Rabbit CD4 concentrations in serum, plasma and other biological fluids. Principle of the Assay: This ELISA kit uses the Sandwich-ELISA principle. The micro ELISA plate provided in this kit has been pre-coated with an antibody specific to Rabbit CD4. Standards or samples are added to the micro ELISA plate wells and combined with the specific antibody. Then a biotinylated detection antibody specific for Rabbit CD4 and Avidin-Horseradish Peroxidase (HRP) conjugate are added successively to each micro plate well and incubated. Free components are washed away. The substrate solution is added to each well. Only those wells that contain Rabbit CD4, biotinylated detection antibody and Avidin-HRP conjugate will appear blue in color. The enzyme-substrate reaction is terminated by the addition of stop solution and the color turns yellow. The optical density (OD) is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The OD value is proportional to the concentration of Rabbit CD4. You can calculate the concentration of Rabbit CD4 in the samples by comparing the OD of the samples to the standard curve.
Other Notes	Small volumes of CD4 elisa kit 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.
Searchable Terms for CD4 purchase	MBS2508348 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the CD4, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CD4. The ELISA analytical biochemical technique of the MBS2508348 kit is based on CD4 antibody-CD4 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CD4 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CD4. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

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; CD4 antigen (p55); CD4 receptor; T-cell surface antigen T4/Leu-3
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: Membrane protein, integral; Cell surface Chromosomal Location of Human Ortholog: 12p13.31 Cellular Component: T cell receptor complex; endoplasmic reticulum membrane; endoplasmic reticulum lumen; early endosome; integral to membrane; plasma 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; defense response to Gram-negative bacterium; induction by virus of cell-cell fusion in host; signal transduction; 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; entry into host cell; immune response; transmembrane receptor protein tyrosine kinase signaling pathway; regulation of T cell activation; T cell differentiation Disease: Okt4 Epitope Deficiency
Research Articles on CD4	**1.** The current review contributes to a better understanding of the role of AhR and its signaling pathway in CD4 helper T cell mediated inflammatory disorder. [review]
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