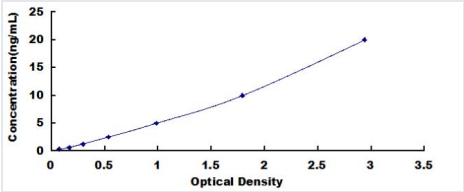
Cluster of Differentiation 4 (CD4) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cluster Of Differentiation 4 (CD4), ELISA Kit
Full Product Name	Human Cluster Of Differentiation 4 (CD4) ELISA Kit
Product Gene Name	CD4 elisa kit
Product Synonym Names	CD4mut; p55; T-cell surface glycoprotein CD4; T-cell surface antigen T4/Leu-3
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue Homogenates, Cell Lysates, Cell Culture Supernates or Other Biological Fluids.
Detection Range	0.312-20ng/mL
Sensitivity	0.127ng/mL
Preparation and Storage	For unopened kits: All the reagents should be kept at 4 degree C upon receipt. For opened kits: Once the kit is opened, the remaining reagents still need to be stored according to the above storage conditions. In addition, return the unused wells to the foil pouch containing the desiccant pack and reseal along entire edge of zip-seal.
Molecular Weight	51,111 Da
OMIM	186940
3D Structure	ModBase 3D Structure for P01730
RTU ELISA Kit's Advantage	The Ready-To-Use (RTU) Kits require fewer steps in setup and take less time to run. Detection Solutions are pre-diluted and total incubation time is shorter than many other ELISA Kits.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CD4 elisa kit	Test Principle: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CD4. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CD4. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain CD4, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of CD4 in the samples is then determined by comparing the O.D. 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	MBS458245 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cluster Of Differentiation 4 (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 MBS458245 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(%).



Typical Testing Data/Standard Curve (for reference only) of CD4 elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	10835167
NCBI GeneID	920
NCBI Accession #	NP_000607.1
UniProt Primary Accession #	P01730
UniProt Secondary Accession #	Q4ZGK2; Q5U066; Q9UDE5; B2R737; D3DUS5
UniProt Related Accession #	P01730
GenBank Nucleotide #	NM_000616.4
NCBI Official Full Name	T-cell surface glycoprotein CD4 isoform 1
NCBI Official Synonym Full Names	CD4 molecule
NCBI Official Symbol	CD4
NCBI Official Synonym Symbols	CD4mut
UniProt Protein Name	T-cell surface glycoprotein CD4
UniProt Synonym Protein Names	T-cell surface antigen T4/Leu-3; CD_antigen: CD4
Protein Family	T-cell surface glycoprotein
UniProt Gene Name	CD4
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	Integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. In T-cells, functions primarily as a coreceptor for MHC class II molecule:peptide complex. The antigens presented by class II peptides are derived from extracellular proteins while class I peptides are derived from cytosolic proteins. Interacts simultaneously with the T-cell receptor (TCR) and the MHC class II presented by antigen presenting cells (APCs). In turn, recruits the Src kinase LCK to the vicinity of the TCR-CD3 complex. LCK then initiates different intracellular signaling pathways by phosphorylating various substrates ultimately leading to lymphokine production, motility, adhesion and activation of T-helper cells. In other cells such as macrophages or NK cells, plays a role in differentiation/activation, cytokine expression and cell migration in a TCR/LCK-independent pathway. Participates in the development of T-helper cells in the thymus and triggers the differentiation of monocytes into functional mature macrophages.
Research Articles on CD4	**1.** Human microRNAs-221 and -222 inhibit HIV-1 entry in macrophages by targeting the CD4 viral receptor.

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