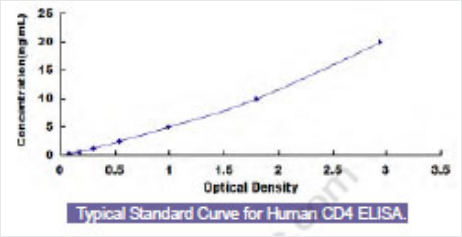
Cluster of Differentiation 4 (CD4) ELISA Kit for Human

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 and other biological fluids.
Detection Range	0.312-20ng/mL
Sensitivity	0.127ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of CD4. No significant cross-reactivity or interference between CD4 and analogues was observed.
Preparation and Storage	For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level CD4 were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level CD4 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	51,111 Da
OMIM	M12807 mRNA
3D Structure	ModBase 3D Structure for P01730
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CD4 elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of CD4 in human tissue homogenates, cell lysates, cell culture supernates and other biological fluids. Principle of the Assay: 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	MBS450302 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 MBS450302 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	Accessory protein for MHC class-II antigen/T-cell receptor interaction. May regulate T-cell activation. Induces the aggregation of lipid rafts.(Microbial infection) Acts as a receptor for human immunodeficiency virus-1 (PubMed:2214026, PubMed:16331979, PubMed:9641677). Down-regulated by HIV-1 Vpu (PubMed:17346169). Acts as a receptor for Human Herpes virus 7/HHV-7 (PubMed:7909607).

Research Articles on CD4	**1.** The percentage of lamina propia CD4+LAP+ cells is increased in active ulcerative colitis, showing reduced suppressor activity due to their increased proportion of intracellular IL-17 expression.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/human-elisa-kits/cluster-of-differentiation-4-cd4/450302