

Mouse anti-Human CD4 Monoclonal Antibody | anti-CD4 antibody

Anti-CD4 Antibody, Mouse Monoclonal

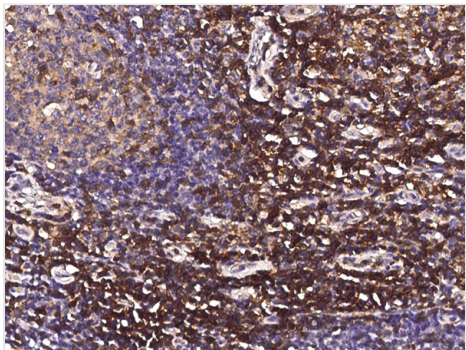
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA254900	Mouse	Human	Immunohistochemistry

PRODUCT SYNONYMS

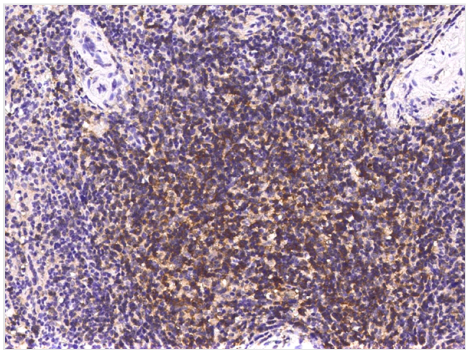
CD4; Monoclonal Antibody; Anti-CD4 Antibody; Mouse Monoclonal; CD4 Antibody; Mouse MAb; CD4 molecule; Anti-CD4mut Antibody; anti-CD4 antibody

PRODUCT SPECIFICATIONS

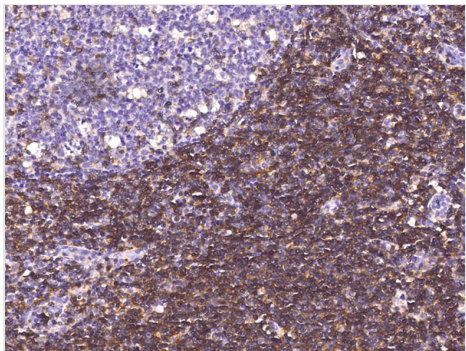
Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	22
Specificity	Human CD4
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-CD4 antibody	IHC (Immunohistochemistry)
Immunogen	Recombinant Human CD4 protein
Conjugation	Unconjugated
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human CD4 (rh CD4). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.



IHC (Immunohistochemistry)
Immunochemical staining of human CD4 in human lymphoid node with mouse monoclonal antibody (1:60, formalin-fixed paraffin embedded sections). Positive staining was localized to membrane of T cells.



IHC (Immunohistochemistry)
Immunochemical staining of human CD4 in human spleen with mouse monoclonal antibody (1:60, formalin-fixed paraffin embedded sections). Positive staining was localized to membrane of T cells.



IHC (Immunohistochemistry)
Immunochemical staining of human CD4 in human tonsil with mouse monoclonal antibody (1:60, formalin-fixed paraffin embedded sections). Positive staining was localized to membrane of T cells.

ADDITIONAL INFORMATION

Related Product Information for anti-CD4 antibody	T-cell surface glycoprotein CD4, is a single-pass type I membrane protein. CD4 contains three Ig-like C2-type (immunoglobulin-like) domains and one Ig-like V-type (immunoglobulin-like) domain. CD4 is a glycoprotein expressed on the surface of T helper cells, regulatory T cells, monocytes, macrophages, and dendritic cells. The CD4 surface determinant, previously associated as a phenotypic marker for helper/inducer subsets of T lymphocytes, has now been critically identified as the binding/entry protein for human immunodeficiency viruses (HIV). The human CD4 molecule is readily detectable on monocytes, T lymphocytes, and brain tissues. All human tissue sources of CD4 bind radiolabeled gp120 to the same relative degree; however, the murine homologous protein, L3T4, does not bind the HIV envelope protein. CD4 is a co-receptor that assists the T cell receptor (TCR) to activate its T cell following an interaction with an antigen-presenting cell. Using its portion that resides inside the T cell, CD4 amplifies the signal generated by the TCR. CD4 interacts directly with MHC class II molecules on the surface of the antigen-presenting cell via its extracellular domain. The CD4 molecule is currently the object of intense interest and investigation both because of its role in normal T-cell function, and because of its role in HIV infection. CD4 is a primary receptor used by HIV-1 to gain entry into host T cells. HIV infection leads to a progressive reduction of the number of T cells possessing CD4 receptors. Viral protein U (VpU) of HIV-1 plays an important role in downregulation of the main HIV-1 receptor CD4 from the surface of infected cells. Physical binding of VpU to newly synthesized CD4 in the endoplasmic reticulum is an early step in a pathway leading to proteasomal degradation of CD4. Amino acids in both helices found in the cytoplasmic region of VpU in membrane-mimicking detergent micelles experience chemical shift perturbations upon binding to CD4, whereas amino acids between the two helices and at the C-terminus of VpU show no or only small changes, respectively. Paramagnetic spin labels were attached at three sequence positions of a CD4 peptide comprising the transmembrane and cytosolic domains of the receptor. VpU binds to a membrane-proximal region in the cytoplasmic domain of CD4.
Product Categories/Family for anti-CD4 antibody	NF-κB (NFkB) Pathway

References	Farrar WL, et al. (1988) Characterization of CD4 glycoprotein determinant-HIV envelope protein interactions: perspectives for analog and vaccine development. Crit Rev Immunol. 8(4): 315-39.Biddison WE, et al. (1989) CD4 expression and function in HLA class II-specific T cells. Immunol Rev. 109: 5-15.Singh SK, et al. (2012) Mapping the interaction between the cytoplasmic domains of HIV-1 viral protein U and human CD4 with NMR spectroscopy. FEBS J. 279(19):3705-14.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	10835167
NCBI GeneID	920
NCBI Accession #	NP_000607.1
NCBI GenBank Nucleotide #	NM_000616.4
UniProt Accession #	P01730; Q4ZGK2; Q5U066; Q9UDE5; B2R737; D3DUS5
Molecular Weight	51,111 Da
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
NCBI Protein Information	T-cell surface glycoprotein CD4; CD4 receptor; CD4 antigen (p55); T-cell surface antigen T4/Leu-3
UniProt Protein Name	T-cell surface glycoprotein CD4
UniProt Gene Name	CD4
UniProt Entry Name	CD4_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/monoclonal/cd4-antibody-clone-22-immunohistochemistry-elisa/254900>