

Rabbit anti-Mouse, Rat CD4 Polyclonal Antibody | anti-Cd4 antibody

Anti-CD4 Antibody

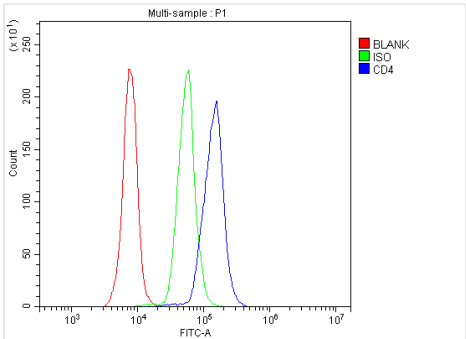
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125541	Rabbit	Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

CD4; Polyclonal Antibody; Anti-CD4 Antibody; T-cell surface glycoprotein CD4; T-cell surface antigen T4/Leu-3; W3/25 antigen; CD antigen CD4; Cd4; Cd4 molecule; anti-Cd4 antibody

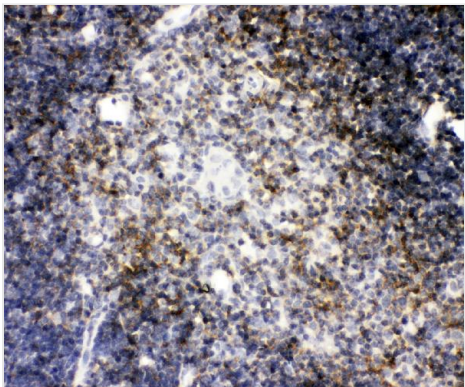
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for CD4 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-Cd4 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived rat CD4 recombinant protein (Position: K28-I457).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



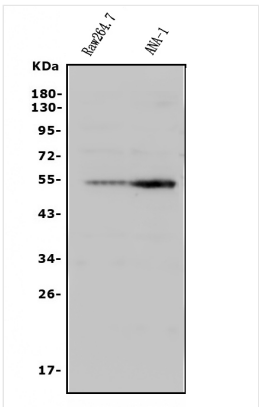
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of mouse PBMC cells using anti-CD4 antibody (AAA125541). Overlay histogram showing mouse PBMC cells stained with AAA125541 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD4 Antibody (AAA125541, 1μg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of CD4 using anti-CD4 antibody (AAA125541). CD4 was detected in paraffin-embedded section of mouse thymus tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-CD4 Antibody (AAA125541) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of CD4 using anti-CD4 antibody (AAA125541). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse RAW264. 7 whole cell lysates Lane 2: mouse ANA-1 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-CD4 antigen affinity purified polyclonal antibody (Catalog # AAA125541) at 0. 5 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CD4 at approximately 52KD. The expected band size for CD4 is at 52KD.

ADDITIONAL INFORMATION

Related Product Information for anti-
Cd4 antibody

This gene encodes a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigens 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.

References
1. Ansari-Lari, M. A., Muzny, D. M., Lu, J., Lu, F., Lilley, C. E., Spanos, S., Malley, T., Gibbs, R. A. A gene-rich cluster between the CD4 and triosephosphate isomerase genes at human chromosome 12p13. <i>Genome Res.</i> 6: 314-326, 1996.
2. Ben-Sasson, S. Z., Hu-Li, J., Quiel, J., Cauchetaux, S., Ratner, M., Shapira, I., Dinarello, C. A., Paul, W. E. IL-1 acts directly on CD4 T cells to enhance their antigen-driven expansion and differentiation. <i>Proc. Nat. Acad. Sci.</i> 106: 7119-7124, 2009.
3. Buttini, M., Westland, C. E., Masliah, E., Yafeh, A. M., Wyss-Coray, T., Mucke, L. Novel role of human CD4 molecule identified in neurodegeneration. <i>Nature Med.</i> 4: 441-446, 1998.

NCBI AND UNIPROT INFORMATION

NCBI GI #	6978631
NCBI GeneID	24932
NCBI Accession #	NP_036837.1
NCBI GenBank Nucleotide #	NM_012705.1
UniProt Accession #	P05540
Molecular Weight	51,438 Da
NCBI Official Full Name	T-cell surface glycoprotein CD4
NCBI Official Synonym Full Names	Cd4 molecule
NCBI Official Symbol	Cd4
NCBI Official Synonym Symbols	p55; W3/25
NCBI Protein Information	T-cell surface glycoprotein CD4; CD4 antigen; T-cell surface antigen T4/Leu-3; W3/25 antigen
UniProt Protein Name	T-cell surface glycoprotein CD4
UniProt Gene Name	Cd4
UniProt Entry Name	CD4_RAT

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.