

## ARG42499 anti-CD4 antibody

Package: 100 µg  
Store at: -20°C

### Summary

Product Description	Goat Polyclonal antibody recognizes CD4
Tested Reactivity	Hu, Ms, Rat, Dog, Mk
Tested Application	IHC-Fr, IHC-P, WB
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	CD4
Species	Human
Immunogen	Purified recombinant peptide within aa. 50-235 (external domain) of Human CD4.
Conjugation	Un-conjugated
Alternate Names	CD4mut; CD antigen CD4; T-cell surface glycoprotein CD4; T-cell surface antigen T4/Leu-3

### Application Instructions

Application table	Application	Dilution
	IHC-Fr	1:250 - 1:1000
	IHC-P	1:250 - 1:1000
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Spleen	
Observed Size	~ 51 kDa	

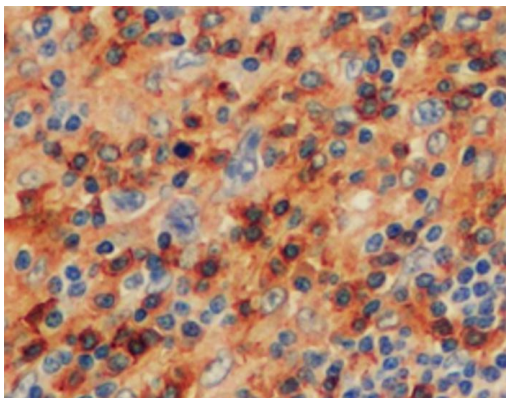
### Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.05% Sodium azide and 20% Glycerol.
Preservative	0.05% Sodium azide
Stabilizer	20% Glycerol
Concentration	3 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

## Bioinformation

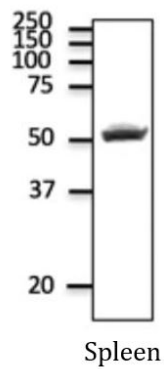
Gene Symbol	CD4
Gene Full Name	CD4 molecule
Background	<p>This gene encodes a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigens and is also a receptor for the human immunodeficiency virus. This gene is expressed not only in T lymphocytes, but 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. [provided by RefSeq, Aug 2010]</p>
Function	<p>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.</p> <p>(Microbial infection) Primary receptor for human immunodeficiency virus-1 (HIV-1) (PubMed:2214026, PubMed:16331979, PubMed:9641677, PubMed:12089508). Down-regulated by HIV-1 Vpu (PubMed:17346169). Acts as a receptor for Human Herpes virus 7/HHV-7 (PubMed:7909607). [UniProt]</p>
Calculated Mw	51 kDa
PTM	Palmitoylation and association with LCK contribute to the enrichment of CD4 in lipid rafts. [UniProt]
Cellular Localization	Cell membrane; Single-pass type I membrane protein. Note=Localizes to lipid rafts (PubMed:12517957, PubMed:9168119). Removed from plasma membrane by HIV-1 Nef protein that increases clathrin-dependent endocytosis of this antigen to target it to lysosomal degradation. Cell surface expression is also down-modulated by HIV-1 Envelope polyprotein gp160 that interacts with, and sequesters CD4 in the endoplasmic reticulum. [UniProt]

## Images



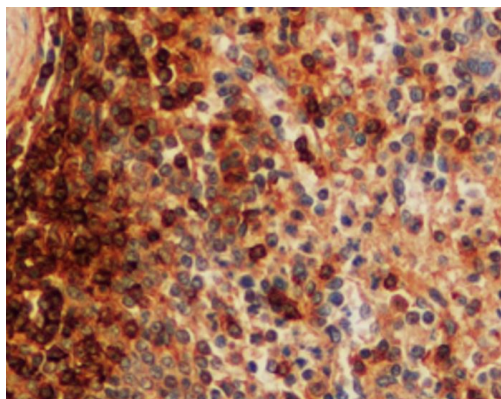
ARG42499 anti-CD4 antibody IHC-P image

Immunohistochemistry: Human lymph node stained with ARG42499 anti-CD4 antibody at 1:750 dilution.



ARG42499 anti-CD4 antibody WB image

Western blot: 100  $\mu$ g of spleen lysate stained with ARG42499 anti-CD4 antibody at 1:500 dilution.



ARG42499 anti-CD4 antibody IHC-P image

Immunohistochemistry: Mouse spleen stained with ARG42499 anti-CD4 antibody at 1:750 dilution.