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Anti-CD4 Reference Antibody (ibalizumab)

Recombinant Antibody
Catalog # APR10306

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	P01730
Reactivity	Cynomolgus, Human
Clonality	Monoclonal
Isotype	IgG4SP
Calculated MW	51111

Additional Information

Target/Specificity	CD4
Endotoxin	
Conjugation	Unconjugated
Expression system	CHO
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

Protein Information

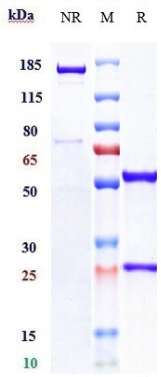
Name	CD4
Function	Integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. In T-cells, functions primarily as a coreceptor for MHC class II molecule:peptide complex. The antigens presented 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.
Cellular Location	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

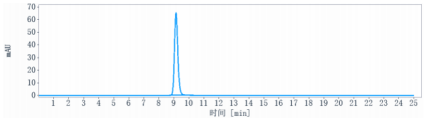
Tissue Location

Highly expressed in T-helper cells. The presence of CD4 is a hallmark of T-helper cells which are specialized in the activation and growth of cytotoxic T-cells, regulation of B cells, or activation of phagocytes. CD4 is also present in other immune cells such as macrophages, dendritic cells or NK cells

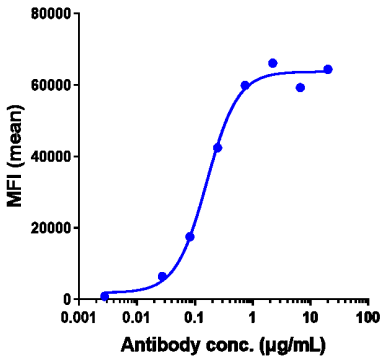
Images



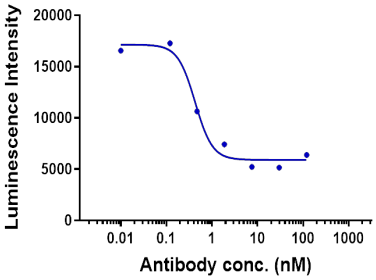
Anti-CD4 Reference Antibody (ibalizumab) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-CD4 Reference Antibody (ibalizumab) is more than 95%, determined by SEC-HPLC.

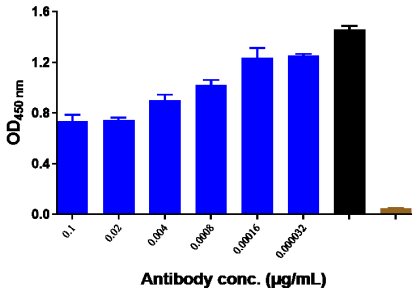


Human CD4 CHO cells were stained with Anti-CD4 Reference Antibody (ibalizumab) and negative control protein respectively, washed and then followed by PE and analyzed with FACS, EC50=0.16 ug/mL.



Anti-CD4 Reference Antibody (ibalizumab) Pseudoviral inhibition was evaluated using Tzmbl.The IC50 was approximately 0.441 nM.

Anti-CD4 Reference Antibody (ibalizumab) Activation inhibition was evaluated using PBMC. The max induction fold was approximately 1.71



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