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Anti-CD4 Reference Antibody (ibalizumab)

Recombinant Antibody
Catalog # APR10306

Specification

Anti-CD4 Reference Antibody (ibalizumab) - Product Information

Application	**FC, Kinetics, Animal Model**
Primary Accession	P01730
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**IgG4SP**
Calculated MW	**147.36 KDa**

Anti-CD4 Reference Antibody (ibalizumab) - Additional Information

Target/Specificity
CD4

Endotoxin
< 0.001EU/ μg,determined by LAL method.

Conjugation
Unconjugated

Expression system
CHO Cell

Format
Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

Anti-CD4 Reference Antibody (ibalizumab) - 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

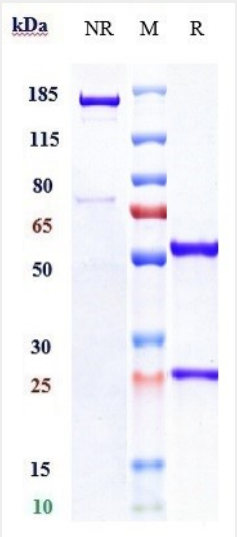
Tissue Location
Highly expressed in T-helper cells. The presence of CD4 is a hallmark of T-helper cells which are specialized in the activation and growth of cytotoxic T-cells, regulation of B cells, or activation of phagocytes. CD4 is also present in other immune cells such as macrophages, dendritic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

Anti-CD4 Reference Antibody (ibalizumab) - Protocols

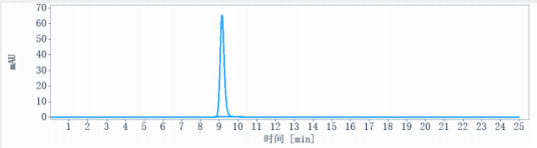
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CD4 Reference Antibody (ibalizumab) - Images



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



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

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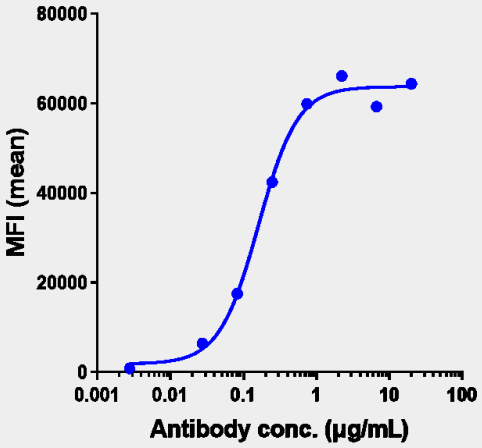
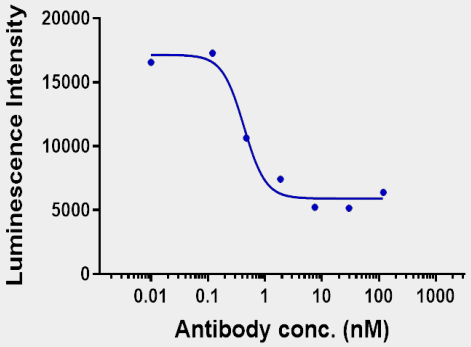
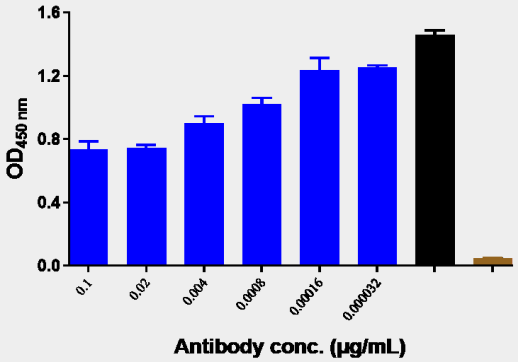
SEC-HPLC.



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, EC369=0.16 µg/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