

CD4 (PN0617) Nb-FC recombinant antibody

Catalog No :	YA0351
Reactivity :	Human
Applications :	ELISA
Target :	CD4
Gene Name :	CD4
Protein Name :	T-cell surface glycoprotein CD4 (T-cell surface antigen T4/Leu-3) (CD antigen CD4)
Human Gene Id :	920
Human Swiss Prot No :	P01730
Immunogen :	Purified recombinant Human CD4
Specificity :	This recombinant monoclonal antibody can detects endogenous levels of CD4 protein.
Formulation :	Phosphate-buffered solution
Source :	Camel, chimeric fusion of Nanobody (VHH) and mouse IgG1 Fc domain , recombinantly produced from 293F cell
Dilution :	ELISA 1:5000-100000
Purification :	Recombinant Expression and Affinity purified
Concentration :	Please check the information on the tube
Storage Stability :	-15°C to -25°C/1 year(Avoid freeze / thaw cycles)
Background :	This gene encodes a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigenes 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]

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, cyt

Subcellular Location :

Cell membrane ; Single-pass type I membrane protein . 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.

Expression :

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.

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