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Goat Anti-CD4 Antibody (internal region)

Purified Goat Polyclonal Antibody
Catalog # AF4218a

Specification

Goat Anti-CD4 Antibody (internal region) - Product Information

Application	**WB, IHC, FC, Pep-ELISA**
Primary Accession	P01730
Other Accession	NP_000607.1, NP_001181943.1
Reactivity	**Human**
Predicted	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5**
Calculated MW	**51111**

Goat Anti-CD4 Antibody (internal region) - Additional Information

Gene ID 920

Other Names
CD4; CD4 molecule; CD4mut; CD4 antigen (p55); CD4 receptor; T-cell surface antigen T4/Leu-3; T-cell surface glycoprotein CD4

Dilution
WB~~1:1000
IHC~~1:100~500
FC~~1:10~50
Pep-ELISA~~N/A

Format
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Immunogen
Peptide with sequence C-KNKEVSVKRVTQDPK, from the internal region of the protein sequence according to NP_000607.1; NP_001181943.1.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-CD4 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-CD4 Antibody (internal region) - 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

Goat Anti-CD4 Antibody (internal region) - 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

Goat Anti-CD4 Antibody (internal region) - Images

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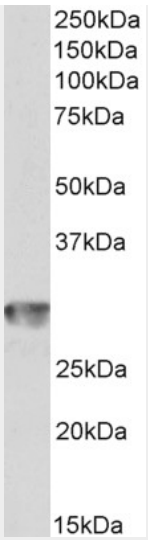

AF4218a (1 µg/ml) staining of Human Spleen lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-CD4 Antibody (internal region) - References

CD4 expression on activated NK cells: ligation of CD4 induces cytokine expression and cell migration. Bernstein HB, Plasterer MC, Schiff SE, Kitchen CM, Kitchen S, Zack JA. Journal of immunology (Baltimore, Md. : 1950) 2006 Sep 177 (6): 3669-76.