

# CD4

Rabbit Monoclonal antibody(Mab)
Catalog # AD80285

#### **Product Information**

Application IHC-P
Primary Accession P01730
Reactivity Human
Host Rabbit
Clonality Monoclonal
Clone Names 458G4A1
Calculated MW 51111

### **Additional Information**

Gene ID 920 Gene Name CD4

Other Names T-cell surface glycoprotein CD4, T-cell surface antigen T4/Leu-3, CD4, CD4

**Dilution** IHC-P~~Ready-to-use

**Storage** Maintain refrigerated at 2-8°C.

**Precautions** CD4 Antibody is for research use only and not for use in diagnostic or

therapeutic procedures.

#### **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.

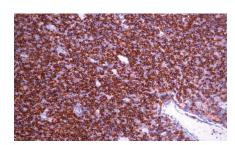
Cellular Location Cell membrane; Single-pass type I membrane protein. Note=Localizes to lipid

rafts (PubMed:12517957, PubMed:9168119). Removed from plasma

#### **Tissue Location**

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 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**



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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.