

Anti-CD4 antibody

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.

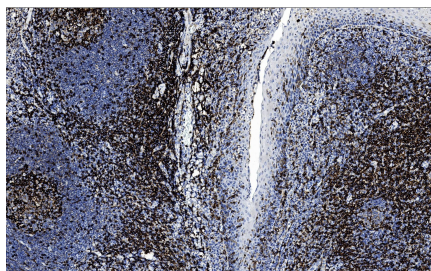
Protein Information

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

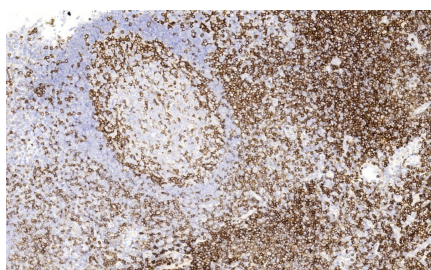
Tissue Location

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

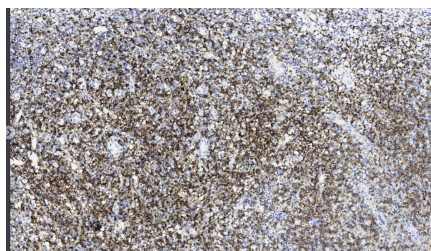
Images



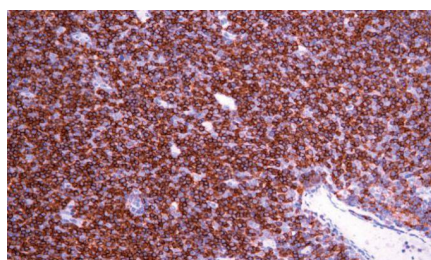
Immunohistochemical analysis of formalin-fixed and paraffin-embedded human tonsil tissue was performed with CD4 primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.



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Immunohistochemical analysis of formalin-fixed and paraffin-embedded human thymus tissue was performed with CD4 primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.

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