

CD4
Rabbit Monoclonal antibody(Mab)
Catalog # AD80285

Specification

CD4 - Product info

| | |
|-------------------|------------------------|
| Application | IHC-P, IHC |
| Primary Accession | P01730 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Monoclonal |
| Calculated MW | 51111 |

CD4 - Additional info

| | |
|-----------|-----|
| 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

IHC~~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.

CD4 - 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

Cellular Location

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. 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.

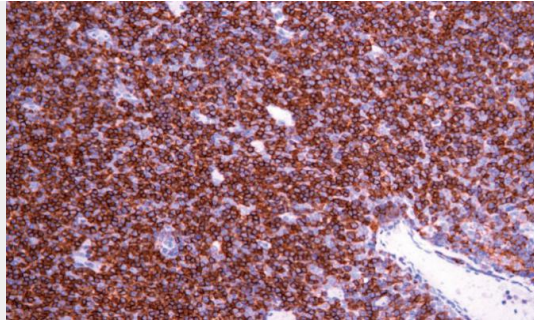
CD4 - Protocols

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

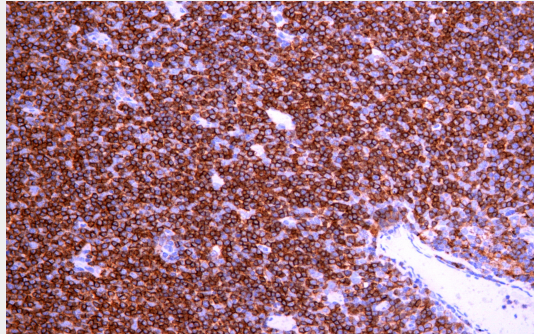
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD4 - Images





Thymus



Immunohistochemical analysis of paraffin-embedded human thymus tissue using AD80285 performed on the Abcarta® FAIP-30 Fully automated IHC platform. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a Citrate buffer (pH6.0). Samples were incubated with primary antibody (Ready-to-use) for 15 min at room temperature. AmpSee™ Detection Systems [Abcepta:AR005] was used as the secondary antibody.