10320 Camino Santa Fe, Suite G
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# 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** |

| | |
|---|---|
| | **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.** |

## 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 Cytomety
- Cell Culture

## CD4 - Images

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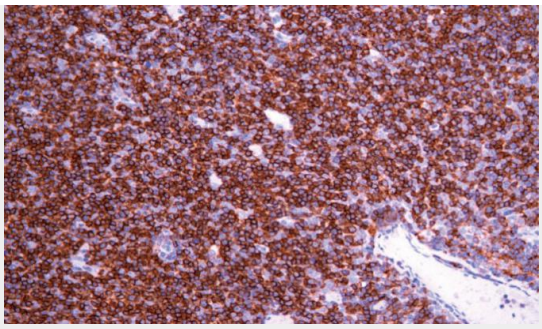
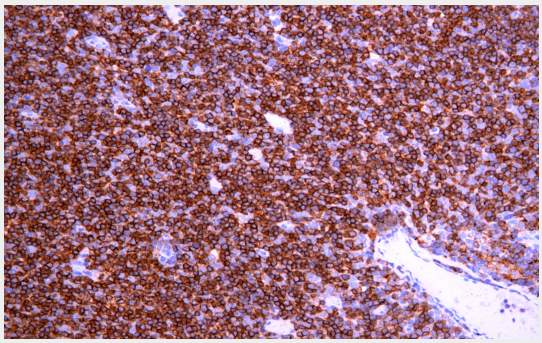


Thymus



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. AmpSeeTM Detection Systems（Abcepta:AR005） was used as the secondary antibody.