

# CD4 (11A1) Mouse mAb

CatalogNo: YM3070 Orthogonal Validated 💽

## **Key Features**

**Host Species** 

Mouse

Reactivity

· Human, Mouse, Rat

Applications
• IHC,IF

MW

51kD (Calculated)

### **Recommended Dilution Ratios**

IHC 1:200

IF 1:200-1:1000

### Storage

Storage\* -15°C to -25°C/1 year(Do not lower than -25°C)

**Formulation** PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and 50% Glycerol.

### **Basic Information**

**Clonality** Monoclonal

Clone Number 11A1

# Immunogen Information

**Immunogen** Synthetic Peptide of CD4

**Specificity** The antibody detects endogenous CD4 proteins.

### Target Information

#### Gene name

CD4

#### **Protein Name**

T-cell surface glycoprotein CD4

Organism	Gene ID	UniProt ID
Human	<u>920;</u>	<u>P01730;</u>
Mouse	<u>12504;</u>	<u>P06332;</u>
Rat	<u>24932;</u>	<u>P05540;</u>

### Cellular Localization

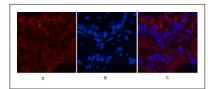
Cell membrane; Single-pass type I membrane protein. Localizes to lipid rafts (PubMed:12517957, PubMed:9168119). Removed from plasma membrane by HIV-1 Nef protein that increases clathrin-dependent endocytosis of this antigen to target it to lysosomal degradation. Cell surface expression is also down-modulated by HIV-1 Envelope polyprotein qp160 that interacts with, and sequesters CD4 in the endoplasmic reticulum.

**Tissue specificity** 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.

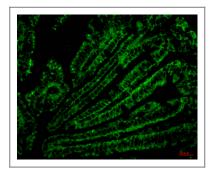
#### **Function**

Function: Accessory protein for MHC class-II antigen/T-cell receptor interaction. May regulate T-cell activation. Induces the aggregation of lipid rafts., miscellaneous: Primary receptor for HIV-1., online information: CD4 entry, PTM: Palmitoylation and association with LCK contribute to the enrichment of CD4 in lipid rafts., similarity: Contains 1 Ig-like V-type (immunoglobulinlike) domain., similarity: Contains 3 Ig-like C2-type (immunoglobulin-like) domains., subcellular location: Localizes to lipid rafts. 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., subunit: Associates with LCK. Binds to HIV-1 gp120 and to P4HB/PDI and upon HIV-1 binding to the cell membrane, is part of P4HB/PDI-CD4-CXCR4-gp120 complex. Interacts with HIV-1 Envelope polyprotein gp160 and protein Vpu. Interacts with Human Herpes virus 7 capsid proteins.,

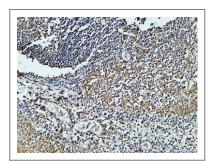
### Validation Data



Immunofluorescence analysis of Rat-lung tissue. 1,CD4 Monoclonal Antibody(11A1)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of paraffin-embedded Mouse Colonic tissue



Immunohistochemical analysis of paraffin-embedded Human Amygdala. 1, Antibody was diluted at 1:400(4° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).

### | Contact information

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Please scan the QR code to access additional product information: **CD4 (11A1) Mouse** 

mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Antibody | ELISA Kits | Protein | Reagents