

CD4 (11A1) Mouse mAb

CatalogNo: YM3070 **Orthogonal Validated** 

Key Features

Host Species

- Mouse

Reactivity

- Human, Mouse, Rat

Applications

- IHC, IF

MW

- 51kD (Calculated)

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.

Recommended Dilution Ratios

IHC 1:200**IF 1:200-1:1000**

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	920 ;	P01730 ;
Mouse	12504 ;	P06332 ;
Rat	24932 ;	P05540 ;

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 gp160 that interacts with, and sequesters CD4 in the endoplasmic reticulum.

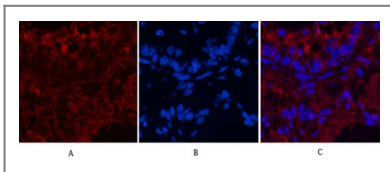
Tissue specificity

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.

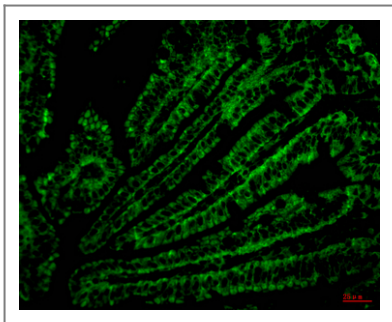
Function

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 (immunoglobulin-like) 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.,

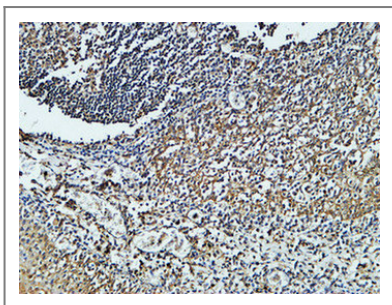
Validation Data



Immunofluorescence analysis of Rat-lung tissue. 1,CD4 Monoclonal Antibody(11A1)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labeled 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

Orders: order.cn@immunoway.com
Support: support.cn@immunoway.com
Telephone: 400-8787-807(China)
Website: <http://www.immunoway.com.cn>
Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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CD4 (11A1) Mouse mAb

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