



CD4 (11A1) Mouse mAb

Catalog No	YP-mAb-19450
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	IHC、 IF
Gene Name	CD4
Immunogen	Synthetic Peptide of CD4
Specificity	The antibody detects endogenous CD4 proteins.
Formulation	PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and 50% Glycerol.
Source	Monoclonal,Mouse,IgG
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.
Dilution	IHC 1:200; IF 1:200-1:1000 Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0 (Cat#YS0004)
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-15°C to -25°C/1 year(Do not lower than -25°C)
Synonyms	CD4;T-cell surface glycoprotein CD4;CD4 ;T-cell surface glycoprotein CD4 ;T-cell surface antigen T4/Leu-3 ;CD4
Observed Band	
Calculated Molecular Weight	51kD
Cell Pathway	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. ,

Background

This gene encodes a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigenes and is also a receptor for the human immunodeficiency virus. This gene is expressed not only in T lymphocytes , but also in B cells , macrophages , and granulocytes. It is also expressed in specific regions of the brain. The protein functions to initiate or augment the early phase of T-cell activation , and may function as an important mediator of indirect neuronal damage in infectious and immune-mediated diseases of the central nervous system. Multiple alternatively spliced transcript variants encoding different isoforms have been identified in this gene. [provided by RefSeq , Aug 2010] ,

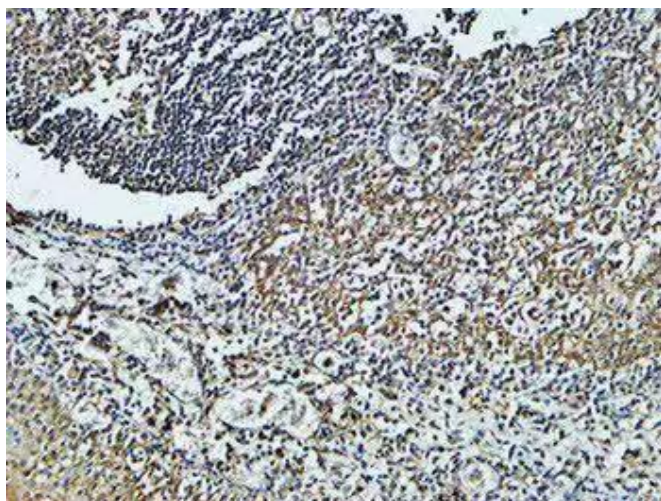
matters needing attention

Avoid repeated freezing and thawing!

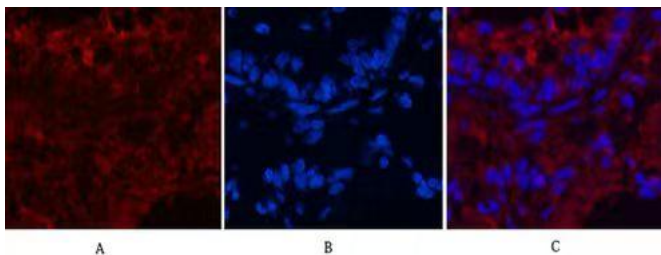
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

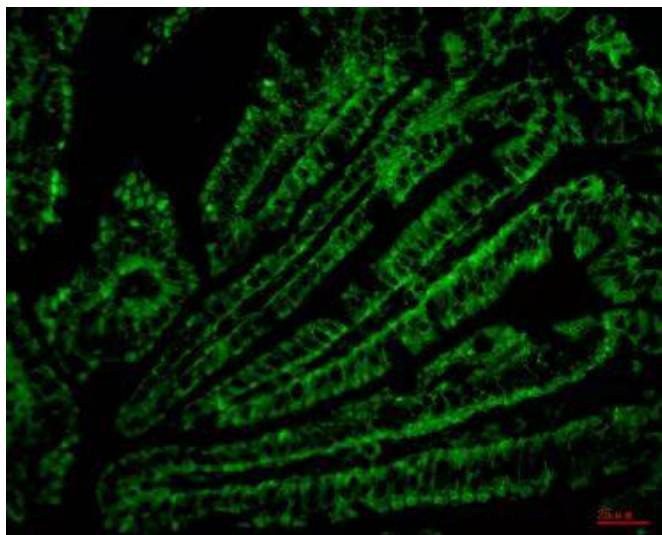
Products Images



Immunohistochemical analysis of paraffin-embedded Human Amygdala. 1, Antibody was diluted at 1:400 (4 °C 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).



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