

CD4 Polyclonal Antibody

Catalog No :	YT0762
Reactivity :	Human;Mouse
Applications :	WB;IHC;IF;ELISA
Target :	CD4
Fields :	>>Viral life cycle - HIV-1;>>Cytokine-cytokine receptor interaction;>>Cell adhesion molecules;>>Antigen processing and presentation;>>Hematopoietic cell lineage;>>Th1 and Th2 cell differentiation;>>Th17 cell differentiation;>>T cell receptor signaling pathway;>>Yersinia infection;>>Human T-cell leukemia virus 1 infection;>>Human immunodeficiency virus 1 infection;>>PD-L1 expression and PD-1 checkpoint pathway in cancer;>>Primary immunodeficiency
Gene Name :	CD4
Protein Name :	T-cell surface glycoprotein CD4
Human Gene Id :	920
Human Swiss Prot No :	P01730
Mouse Gene Id :	12504
Mouse Swiss Prot No :	P06332
Immunogen :	The antiserum was produced against synthesized peptide derived from human CD4. AA range:401-450
Specificity :	CD4 Polyclonal Antibody detects endogenous levels of CD4 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC: 1:100-300 ELISA: 1:20000. IF 1:100-300 Not yet tested in other applications.

Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	51kD
Cell Pathway :	Cell adhesion molecules (CAMs);Antigen processing and presentation;Hematopoietic cell lineage;T_Cell_Receptor;Primary immunodeficiency;
Background :	This gene encodes a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigens 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],
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 t
Subcellular Location :	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.
Expression :	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.

Tag : orthogonal

Sort : 1

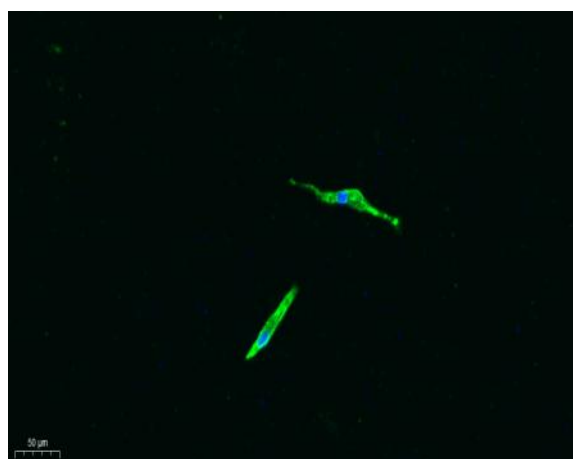
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No4 : 1

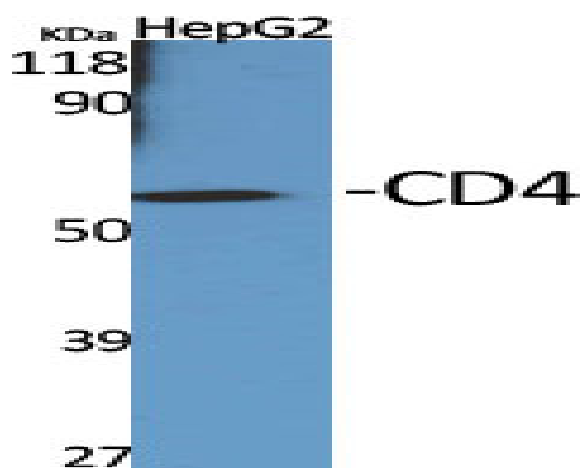
Host : Rabbit

Modifications : Unmodified

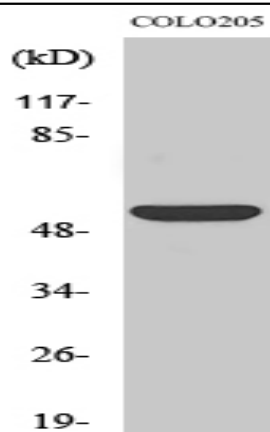
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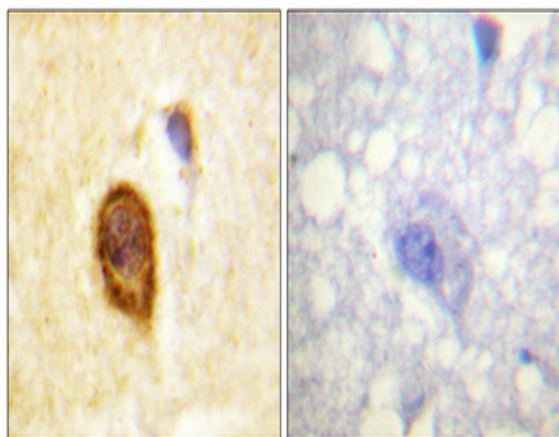
Immunofluorescence analysis of A549. 1,primary Antibody was diluted at 1:200(4°C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 488 Secondary antibody was diluted at 1:1000(room temperature, 50min).3, Picture B: DAPI(blue) 10min.



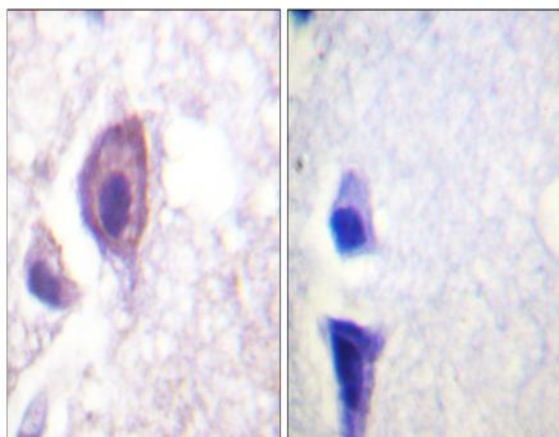
Western Blot analysis of various cells using CD4 Polyclonal Antibody diluted at 1:500



Western Blot analysis of COLO205 cells using CD4 Polyclonal Antibody diluted at 1:500



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using CD4 Antibody. The picture on the right is blocked with the synthesized peptide.

