

**CD4 (phospho Ser433) Polyclonal Antibody**

<b>Catalog No :</b>	YP1138
<b>Reactivity :</b>	Human;Mouse
<b>Applications :</b>	IHC;IF;ELISA
<b>Target :</b>	CD4
<b>Fields :</b>	>>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
<b>Gene Name :</b>	CD4
<b>Protein Name :</b>	T-cell surface glycoprotein CD4
<b>Human Gene Id :</b>	920
<b>Human Swiss Prot No :</b>	P01730
<b>Mouse Gene Id :</b>	12504
<b>Mouse Swiss Prot No :</b>	P06332
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human CD4 around the phosphorylation site of Ser433. AA range:401-450
<b>Specificity :</b>	Phospho-CD4 (S433) Polyclonal Antibody detects endogenous levels of CD4 protein only when phosphorylated at S433.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:40000. Not yet tested in other applications.

<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Molecularweight :</b>	51kD
<b>Cell Pathway :</b>	Cell adhesion molecules (CAMs);Antigen processing and presentation;Hematopoietic cell lineage;T_Cell_Receptor;Primary immunodeficiency;
<b>Background :</b>	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],
<b>Function :</b>	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
<b>Subcellular Location :</b>	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.
<b>Expression :</b>	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.

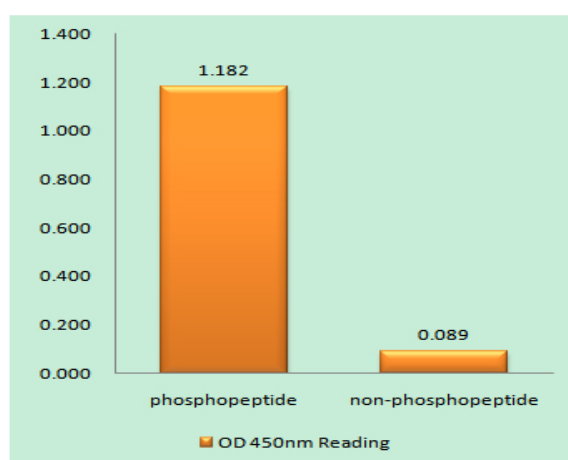
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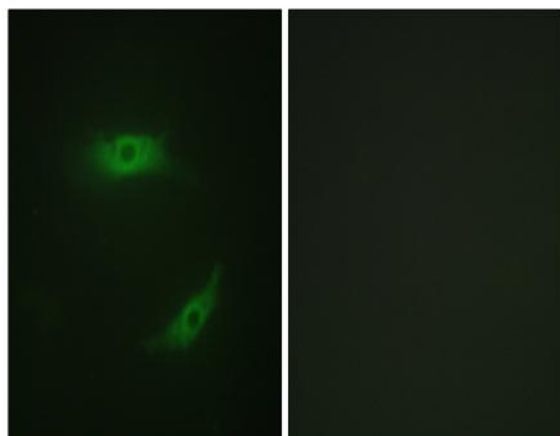
**Host :** Rabbit

**Modifications :** Phospho

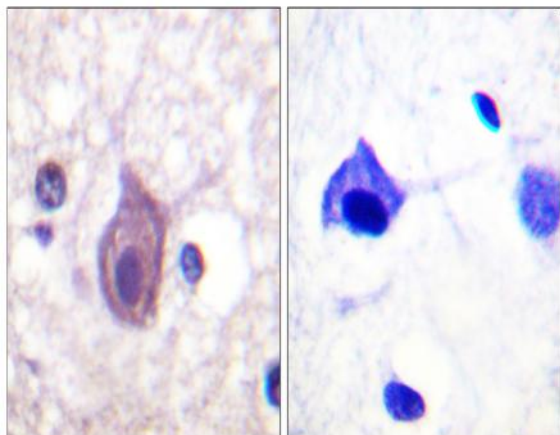
## Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CD4 (Phospho-Ser433) Antibody



Immunofluorescence analysis of HepG2 cells, using CD4 (Phospho-Ser433) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using CD4 (Phospho-Ser433) Antibody. The picture on the right is blocked with the phospho peptide.