

## Rabbit Anti-CD45 antibody

SL10599R

<b>Product Name</b>	CD45
<b>Chinese Name</b>	白细胞共同抗原抗体
<b>Alias</b>	B220; CD 45; CD-45; CD45; cd45 antigen; ec3.1.3.48; CD45R; GP180; GP180; GP 180; L CA; LCA; L-CA; Leukocyte common antigen; LY5; Ly-5 glycoprotein; Protein tyrosine phosphatase receptor type C; Protein tyrosine phosphatase receptor type c polypeptide; protein tyrosine phosphatase, receptor type, C; Receptor-type tyrosine-protein phosphatase C; PTPRC; PTPRC_HUMAN; SCID due to PTPRC deficiency; T200; T200 glycoprotein; T200 leukocyte common antigen; Human homolog of severe combined immunodeficiency due to PTPRC deficiency.
<b>Research Area</b>	Cell biology immunology Neurobiology Signal transduction transcriptional regulatory factor The cell membrane 受体 Cell Surface Molecule glycoprotein Cell type markers Natural killer cells lymphocyte t-lymphocyte b-lymphocyte The cell membrane 蛋白
<b>Immunogen Species</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>React Species</b>	Mouse, Rat,
<b>Applications</b>	Flow-Cyt=1μg/Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Theoretical molecular weight</b>	143kDa
<b>Cellular localization</b>	The cell membrane
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>immunogen</b>	KLH conjugated synthetic peptide derived from human CD45: 451-550/1291 <Extracellular>
<b>Lsotype</b>	IgG
<b>Purification</b>	affinity purified by Protein A
<b>Buffer Solution</b>	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

**Storage**

Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

**Attention**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**PubMed**

[PubMed](#)

The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus belongs to receptor type PTP. This gene is specifically expressed in hematopoietic cells. This PTP has been shown to be an essential regulator of T- and B-cell antigen receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. This PTP also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Four alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported. [provided by RefSeq, Jul 2008].

**Product Detail**

**Function:**

Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor. Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN. Dephosphorylates LYN, and thereby modulates LYN activity.

**Subunit:**

Binds GANAB and PRKCSH. Interacts with SKAP1. Interacts with DPP4; the interaction is enhanced in a interleukin-12-dependent manner in activated lymphocytes. Contains 2 tyrosine-protein phosphatase domains.

**Subcellular Location:**

Membrane; Single-pass type I membrane protein. Membrane raft. Note=Colocalized with DPP4 in membrane rafts.

**Post-translational modifications:**

Heavily N- and O-glycosylated.

**DISEASE:**

Defects in PTPRC are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive

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(T(-)B(+)NK(+) SCID) [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development. Genetic variations in PTPRC are involved in multiple sclerosis susceptibility (MS) [MIM:126200]. MS is a neurodegenerative disorder characterized by the gradual accumulation of focal plaques of demyelination particularly in the periventricular areas of the brain. Peripheral nerves are not affected. Onset usually in third or fourth decade with intermittent progression over an extended period. The cause is still uncertain.

**Similarity:**

Belongs to the protein-tyrosine phosphatase family. Receptor class 1/6 subfamily.

Contains 2 fibronectin type-III domains.

Contains 2 tyrosine-protein phosphatase domains.

**SWISS:**

P06800

**Gene ID:**

19264

**Database links:**

[Entrez Gene: 5788](#) Human

[Entrez Gene: 19264](#) Mouse

[Entrez Gene: 24699](#) Rat

[Omim: 151460](#) Human

[SwissProt: P08575](#) Human

[SwissProt: P06800](#) Mouse

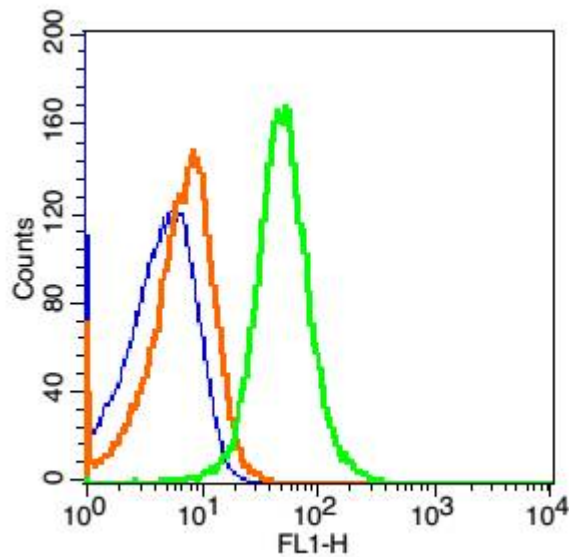
[SwissProt: P04157](#) Rat

[Unigene: 654514](#) Human

[Unigene: 391573](#) Mouse

[Unigene: 90166](#) Rat

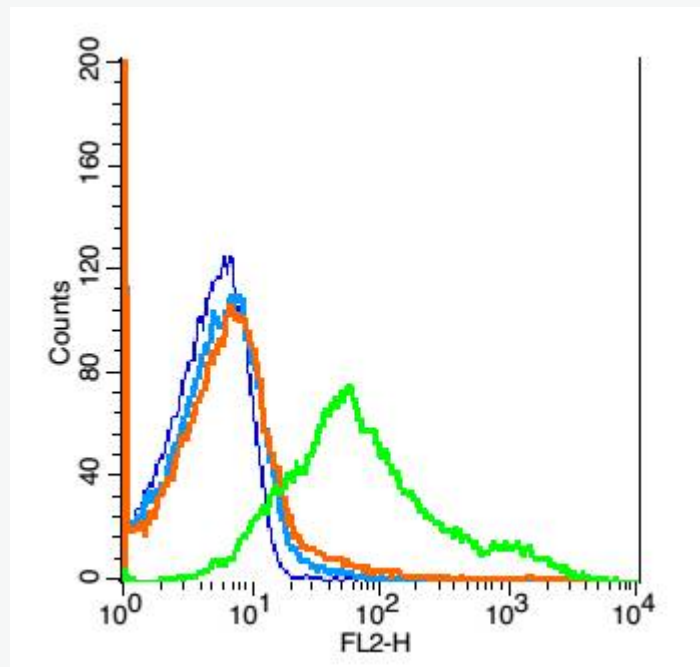
**Product Picture**



Blank control(Blue): RSC96(fixed with 2% paraformaldehyde (10 min)).

Primary Antibody: Rabbit Anti- CD45/FITC Conjugated antibody (SL10599R /FITC), Dilution: 1 $\mu$ g in 100  $\mu$ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG/FITC(orange) ,used under the same conditions.



Blank control: Mouse spleen cells(blue).

Primary Antibody: Rabbit Anti-CD45 antibody(SL10599R), Dilution:  
1 $\mu$ g in 100  $\mu$ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG (orange) ,used under the same  
conditions.

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution:  
1:200 in 1 X PBS containing 0.5% BSA.