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PTPRC Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP11708A

Specification

PTPRC Antibody (N-term) - Product Information

Application	**WB, FC,E**
Primary Accession	P08575
Other Accession	NP_563578.1, NP_002829.2
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**336-364**

PTPRC Antibody (N-term) - Additional Information

Gene ID 5788

Other Names
Receptor-type tyrosine-protein phosphatase C, Leukocyte common antigen, L-CA, T200, CD45, PTPRC, CD45

Target/Specificity
This PTPRC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 336-364 amino acids of human PTPRC.

Dilution
WB~~1:1000
FC~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PTPRC Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PTPRC Antibody (N-term) - Protein Information

Name PTPRC (HGNC:9666)

Synonyms CD45

Function Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor (PubMed:35767951). 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 (By similarity). Interacts with CLEC10A at antigen presenting cell-T cell contact; CLEC10A on immature dendritic cells recognizes Tn antigen- carrying PTPRC/CD45 receptor on effector T cells and modulates T cell activation threshold to limit autoreactivity.

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

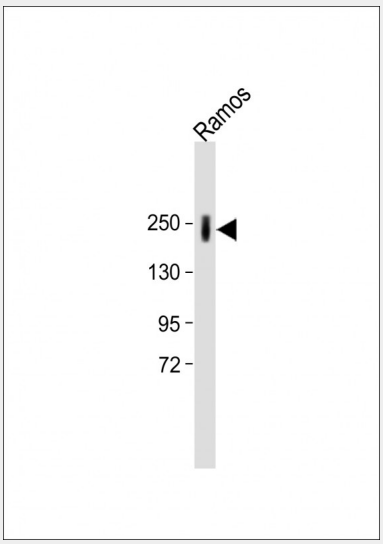
Tissue Location
Isoform 1: Detected in thymocytes. Isoform 2: Detected in thymocytes. Isoform 3: Detected in thymocytes. Isoform 4: Not detected in thymocytes. Isoform 5: Detected in thymocytes. Isoform 6: Not detected in thymocytes. Isoform 7: Detected in thymocytes Isoform 8: Not detected in thymocytes.

PTPRC Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PTPRC Antibody (N-term) - Images



All lanes : Anti-PTPRC Antibody (N-term) at 1:2000 dilution Lane 1:Ramos cell lysate

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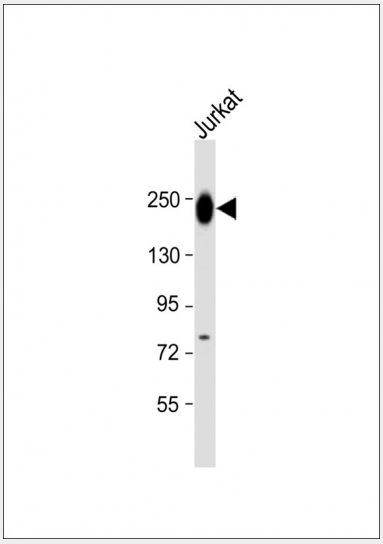
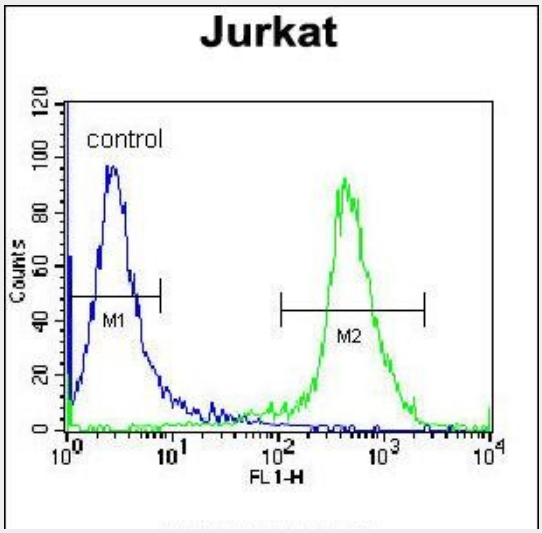
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 180kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-PTPRC Antibody (N-term) at 1:1000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 147 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



PTPRC Antibody (N-term) (Cat. #AP11708a) flow cytometric analysis of Jurkat cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.

PTPRC Antibody (N-term) - Background

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].

PTPRC Antibody (N-term) - References

Heyd, F., et al. Mol. Cell 40(1):126-137(2010)
Wu, Z., et al. J. Immunol. 185(1):231-238(2010)
Cui, J., et al. Arthritis Rheum. 62(7):1849-1861(2010)
Booth, N.J., et al. J. Immunol. 184(8):4317-4326(2010)
Capitanescu, B., et al. Rom J Morphol Embryol 51(1):49-54(2010)