

## Rabbit anti-Human CD45 Polyclonal Antibody | anti-PTPRC antibody

CD45 Antibody (C-term)

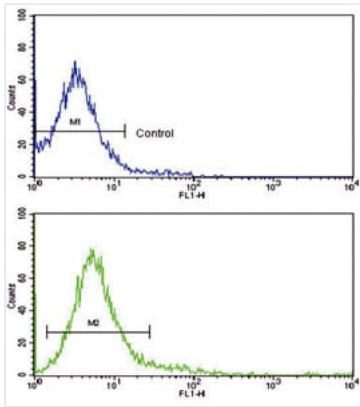
| CATALOG # | HOST   | REACTIVITY | APPLICATIONS                                                                |
|-----------|--------|------------|-----------------------------------------------------------------------------|
| AAA284651 | Rabbit | Human      | Flow Cytometry, Functional Assay, Immunohistochemistry, ELISA, Western Blot |

### PRODUCT SYNONYMS

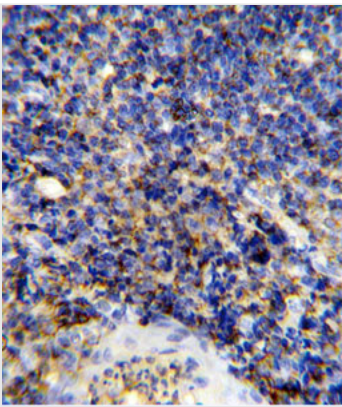
CD45; Polyclonal Antibody; CD45 Antibody (C-term); Receptor-type tyrosine-protein phosphatase C; Leukocyte common antigen; L-CA; T200; PTPRC; anti-PTPRC antibody

### PRODUCT SPECIFICATIONS

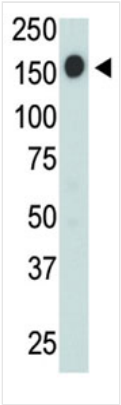
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|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Reactivity                                      | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Clonality                                       | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Isotype                                         | Rabbit Ig                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Specificity                                     | This CD45 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1245-1275 amino acids from the C-terminal region of human CD45.                                                                                                                                                                                                                                                                                      |
| Purity/Purification                             | Purified Rabbit Polyclonal Antibody (Pab)                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Form/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.                                                                                                                                                                                                                                                                   |
| Concentration                                   | Vial Concentration: 2 (varies by lot)                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Sequence Positions                              | 1245-1275                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Sequence Length                                 | 1306                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Applicable Applications for anti-PTPRC antibody | FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), ELISA, WB (Western Blot)                                                                                                                                                                                                                                                                                                                                                                             |
| Antigen Type                                    | Synthetic Peptide                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Clone Names                                     | RB00430                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Antigen Source                                  | HUMAN                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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 (By similarity). |
| Cellular Location                               | Membrane; Single-pass type I membrane protein Membrane raft. Note=Colocalized with DPP4 in membrane rafts                                                                                                                                                                                                                                                                                                                                                   |
| Preparation and Storage                         | Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.                                                                                                                                                                                                                                                                                                      |



**FCM/FACS (Flow Cytometry)**  
Flow cytometric analysis of jurkat cells using CD45 Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



**IHC (Immunohiostchemistry)**  
Formalin-fixed and paraffin-embedded human tonsil reacted with CD45 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



**WB (Western Blot)**  
The anti-CD45 (C-term) Pab (Cat. # AAA284651) is used in Western blot to detect CD45 in jurkat cell lysate.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-PTPRC antibody | CD45 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. The CD45 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. |
| Product Categories/Family for anti-PTPRC antibody   | Cancer; Immunology; Signal Transduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| References                                          | Stanton, T., et al., Proc. Natl. Acad. Sci. U.S.A. 100(10):5997-6002 (2003). Vogel, A., et al., Genes Immun. 4(1):79-81 (2003). Rachmilewitz, J., et al., J. Biol. Chem. 278(16):14059-14065 (2003). McCann, F.E., et al., J. Immunol. 170(6):2862-2870 (2003). Fernandis, A.Z., et al., J. Biol. Chem. 278(11):9536-9543 (2003).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

NCBI AND UNIPROT INFORMATION

|             |           |
|-------------|-----------|
| NCBI GI #   | 392307007 |
| NCBI GeneID | 5788      |

|                                  |                                                        |
|----------------------------------|--------------------------------------------------------|
| NCBI Accession #                 | NP_002829.3; NP_563578.2                               |
| NCBI GenBank Nucleotide #        | NM_002838.4                                            |
| UniProt Accession #              | P08575; Q16614; Q9H0Y6; A8K7W6                         |
| Molecular Weight                 | 147254                                                 |
| NCBI Official Full Name          | receptor-type tyrosine-protein phosphatase C isoform 1 |
| NCBI Official Synonym Full Names | protein tyrosine phosphatase, receptor type, C         |
| NCBI Official Symbol             | PTPRC                                                  |
| NCBI Official Synonym Symbols    | LCA; LY5; B220; CD45; L-CA; T200; CD45R; GP180         |
| NCBI Protein Information         | receptor-type tyrosine-protein phosphatase C           |
| UniProt Protein Name             | Receptor-type tyrosine-protein phosphatase C           |
| UniProt Gene Name                | <b>PTPRC</b>                                           |
| UniProt Synonym Gene Names       | CD45; L-CA                                             |
| UniProt Entry Name               | PTPRC_HUMAN                                            |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/cd45-antibody-flow-cytometry-immunohistochemistry-western-blot-elisa/284651>