

Mouse anti-Human CD45 Monoclonal Antibody | anti-PTPRC antibody

Anti-CD45 Antibody Picoband (monoclonal, 3H6)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126872	Mouse	Human	Flow Cytometry, Functional Assay, Immunofluorescence, Immunohistochemistry, Western Blot

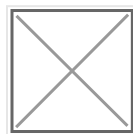
PRODUCT SYNONYMS

CD45; Monoclonal Antibody; Anti-CD45 Antibody Picoband (monoclonal; 3H6); anti-PTPRC antibody

PRODUCT SPECIFICATIONS

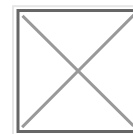
Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	3H6
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)
Applicable Applications for anti-PTPRC antibody	FCM/FACS (Flow Cytometry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human CD45(1214-1254aa EQYQFLYDVIASTYPAQNGQVKNNHQEDKIEFDNEVDKVK), different from the related mouse sequence by eight amino acids, and from the related rat sequence by ten amino acids.
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of Raji cells using anti-CD45 antibody (AAA126872). Overlay histogram showing Raji cells stained with AAA126872 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-CD45 Antibody (AAA126872, 1 ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-mouse IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 2. IF analysis of CD45 using anti-CD45 antibody (AAA126872). CD45 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL mouse anti-CD45 Antibody (AAA126872) overnight at 4 degree C. Biotin conjugated goat anti-mouse IgG (BA1001) was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using DyLight488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of CD45 using anti-CD45 antibody (AAA126872). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates, Lane 2: human Raji whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-CD45 antigen affinity purified monoclonal antibody (#AAA126872) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CD45 at approximately 220 kDa. The expected band size for CD45 is at 220 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-PTPRC antibody	CD45 (Cluster of Differentiation 45), also known as PTPRC, LCA or CD45R, is an enzyme that, in humans, is encoded by the PTPRC gene. It is a member of the protein tyrosine phosphatase (PTP) family. CD45 is a major high molecular mass leukocyte cell surface molecule which is also an integral membrane protein tyrosine phosphatase. The cytogenetic location of CD45 is 1q31.3-q32.1. This gene is especially a prototype for transmembrane protein-tyrosine phosphatase (PTP). Targeted disruption of the CD45 gene leads to enhanced cytokine and interferon receptor-mediated activation of JAKs and STAT proteins. In vitro, CD45 directly dephosphorylates and binds to JAKs. Functionally, CD45 negatively regulates interleukin-3-mediated cellular proliferation, erythropoietin-dependent hematopoiesis, and antiviral responses in vitro and in vivo. In addition, CD45 has been best studied in T cells, where it determines T cell receptor signaling thresholds. CD45 is moved into or out of the immunological synapse (IS) membrane microdomain depending on the relative influence of interaction with the extracellular galectin lattice or the intracellular actin cytoskeleton. Galectin interaction can be finetuned by varying usage of the heavily Oglycosylated spliced regions and sialylation of Nlinked carbohydrates.
Product Categories/Family for anti-PTPRC antibody	Primary Antibodies , Mouse Monoclonal Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	392307007
NCBI GeneID	5788
NCBI Accession #	NP_002829.3
NCBI GenBank Nucleotide #	NM_002838.4
UniProt Accession #	P08575 ; Q16614 ; Q9H0Y6 ; A8K7W6
Molecular Weight	147,254 Da
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; CD45 antigen; T200 glycoprotein; T200 leukocyte common antigen; protein tyrosine phosphatase, receptor type, c polypeptide
UniProt Protein Name	Receptor-type tyrosine-protein phosphatase C
UniProt Gene Name	PTPRC
UniProt Synonym Gene Names	CD45; L-CA

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://stage.aaabiotech.com/monoclonal/cd45-antibody-clone-3h6-flow-cytometry-immunofluorescence-immunohistochemistry-western-blot-elisa/126872>