

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

Anti-CD45 Antibody, Mouse Monoclonal

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA254379	Mouse	Human	Immunofluorescence, Immunocytochemistry, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

CD45; Monoclonal Antibody; Anti-CD45 Antibody; Mouse Monoclonal; CD45/PTPRC Antibody; Mouse MAb; protein tyrosine phosphatase; receptor type; C; Anti-B220 Antibody; Anti-CD45R Antibody; Anti-GP180 Antibody; Anti-L-CA Antibody; Anti-LCA Antibody; Anti-LY5 Antibody; Anti-T200 Antibody; anti-PTPRC antibody

PRODUCT SPECIFICATIONS

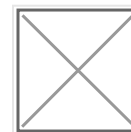
Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	05
Specificity	Human CD45. No cross-reactivity in ELISA with Human cell lysate (293 cell line)
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-PTPRC antibody	IF (Immunofluorescence), ICC (Immunocytochemistry), FCM/FACS (Flow Cytometry), ELISA
Immunogen	Recombinant Human CD45 protein
Conjugation	Unconjugated
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human CD45 (rh CD45). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



IF (Immunofluorescence)

Immunofluorescence staining of Human CD45 in jurkat cells. Cells were fixed with 4% PFA, blocked with 10% serum, and incubated with mouse anti-Human CD45 monoclonal antibody (dilution ratio 1:60). Then cells were stained with the Alexa Fluor 488-conjugated Goat Anti-mouse IgG secondary antibody (green). Positive staining was localized to membrane.



FCM/FACS (Flow Cytometry)

Flow cytometric analysis of Human CD45 expression on human whole blood lymphocytes. Cells were stained with purified anti-Human CD45, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.

ADDITIONAL INFORMATION

Related Product Information for anti-PTPRC antibody	The cluster of differentiation (CD) system is commonly used as cell markers in Immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. Protein tyrosine phosphatase, receptor type C (CD45), also known as PTPRC is a member of the protein tyrosine phosphatase (PTP) family which is known for its function to serve as signaling molecules and to regulate a variety of cellular processes such as cell proliferation, differentiation, mitotic cycle and oncogenic transformation. CD45 is found expression specifically in hemotopietic cells. CD45 consists of an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains. It serves as an essential regulator of T-cell and B-cell antigen receptor signaling through either direct interaction with components of the antigen receptor complexes or by activating various Src family kinases required for the antigen receptor signaling and it also can suppress JAK kinases.
Product Categories/Family for anti-PTPRC antibody	Phosphatases and Regulators; B Cell Receptor Signaling Pathway
References	Zola H, et al. (2007) CD molecules 2006-human cell differentiation molecules. J Immunol Methods. 318 (1-2): 1-5.Ho IC, et al. (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. Nat Rev Immunol. 9 (2): 125-35.Matesanz-Isabel J, et al. (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12.Irie-Sasaki J, et al. (2001) CD45 is a JAK phosphatase and negatively regulates cytokine receptor signaling. Nature. 409: 349-54.

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.