

Basic Information

Product Name	Anti-CD45/PTPRC Antibody	
Gene Name	PTPRC	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human PTPRC recombinant protein (Position: Q1052-E1279).	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	180-250KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 Flow cytometry (FCM): 1-3 µg/1x10 ⁶ cells ELISA: 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

CD45(Cluster of Differentiation 45), also known as PTPRC, LCA or CD45R, is an enzyme that, in humans, is encoded by the PTPRC gene. CD45 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. CD45 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. 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.

Selected Validation Data

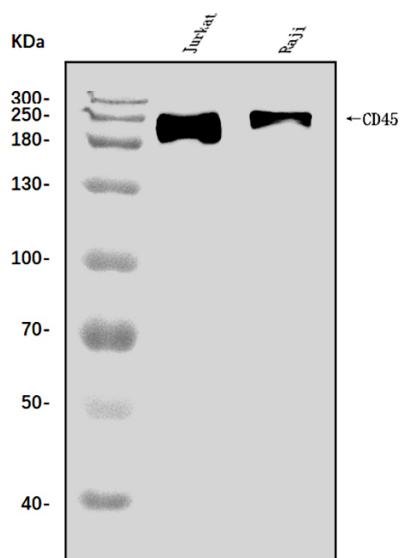


Figure 1. Western blot analysis of PTPRC using anti-PTPRC antibody (A00555-3). Lane 1: human Jurkat whole cell lysates, Lane 2: human Raji whole cell lysates. anti-PTPRC antigen affinity purified polyclonal antibody (Catalog # A00555-2) probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for PTPRC at approximately 220 kDa. The expected band size for PTPRC is at 147 kDa.

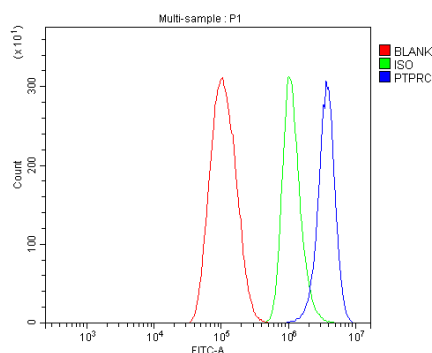


Figure 2. Flow cytometry analysis of THP-1 cells (1x10⁶) stained with DyLight 488 conjugated goat anti-rabbit IgG (blue). Isotype control antibody (green line) was rabbit IgG DyLight 488. Unlabelled sample (red line).

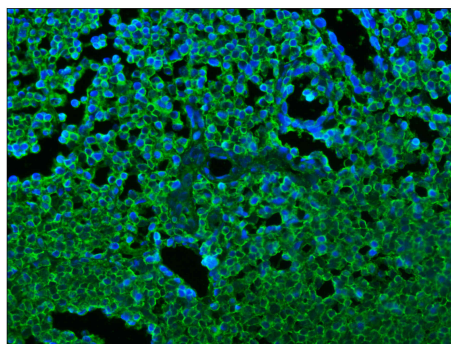


Figure 3. IF analysis using anti-PTPRC antibody (A00555-3). detected in paraffin-embedded section of human tonsil tissue. The tissue section was stained using the DyLight 488-conjugated Anti-rabbit IgG Secondary Antibody (green) (Catalog # BA1127) and counterstained with DAPI (blue).

Product datasheet

Anti-CD45/PTPRC Antibody

Catalog Number: **A00555-3**



antibody and ELISA experts

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