

Basic Information

Product Name	Anti-CD45/PTPRC Antibody (Clone#2H3)	
Gene Name	PTPRC	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG2b	
Species Reactivity	human	
Tested Application	WB, IHC, IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human CD45, different from the related mouse sequence by eight amino acids, and from the related rat sequence by ten amino acids.	
Concentration	500 ug/ml	
Purification	protein G purified.	
Observed MW	180-250 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (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

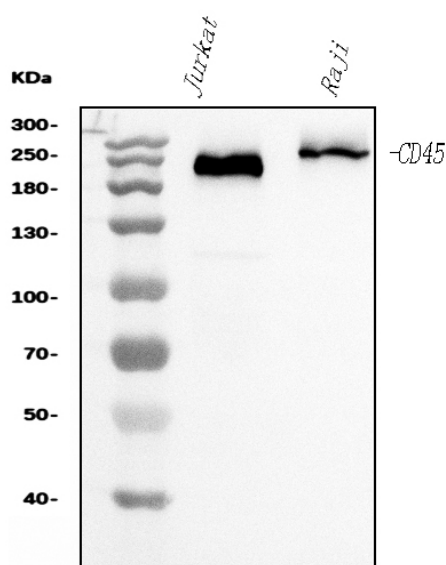
CD45 (Cluster of Differentiation 45), also known as PTPRC, LCA or CD45R, is an enzyme that, in humans, is encoded by the PTPRC gene. It is a member of the protein tyrosine phosphatase (PTP) family. CD45 is a major high molecular mass leukocyte cell surface molecule which is also an integral membrane 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.

Reference

Anti-CD45/PTPRC Antibody (Clone#2H3)被引用在1文献中。

Selected Validation Data



Product datasheet
Anti-CD45/PTPRC Antibody
(Clone#2H3)

Catalog Number: M00555-5

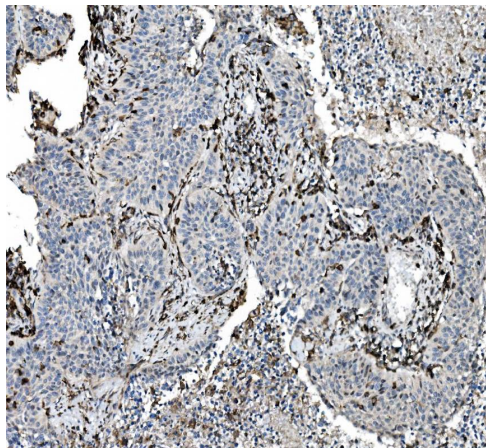


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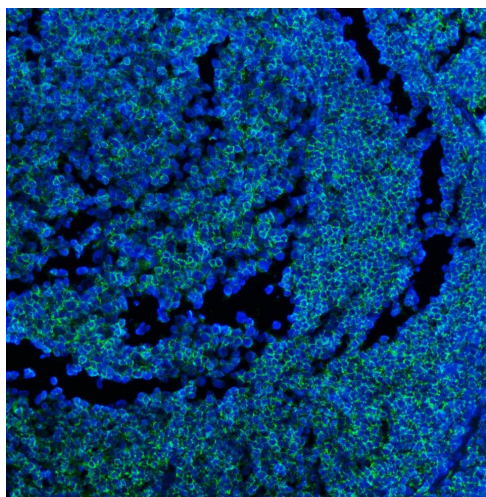
Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,
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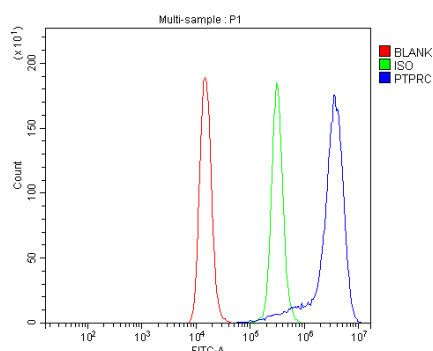


IHC analysis of CD45/PTPRC using anti-CD45/PTPRC antibody (M00555-5).

CD45/PTPRC was detected in a paraffin-embedded section of human lung cancer tissue. The tissue section was incubated with mouse anti-CD45/PTPRC Antibody (M00555-5) at a dilution of 1:200 and developed using HRP Conjugated mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB (Catalog # AR1027) as the chromogen.



IF analysis using anti-CD45/PTPRC Antibody (M00555-5).detected in paraffin-embedded section of human tonsil tissues. The tissue section were stained using the Dylight488 conjugated Anti-mouse IgG Secondary Antibody ((green)(Catalog # BA1126) and counterstained with DAPI (blue).



Flow Cytometry analysis of Raji cells using anti-CD45/PTPRC antibody (M00555-5).

Overlay histogram showing Raji cells stained with M00555-5 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with mouse anti-CD45/PTPRC Antibody (M00555-5) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.