

**CD45RB (B-Cell Marker) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone PTPRC/1147 ]**  
**Catalog # AH12185****Specification****CD45RB (B-Cell Marker) Antibody - With BSA and Azide - Product Information**

Application	WB, IHC, IF, FC
Primary Accession	<a href="#">P08575</a>
Other Accession	<a href="#">5788</a> , <a href="#">654514</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	180-220kDa KDa

**CD45RB (B-Cell Marker) Antibody - With BSA and Azide - Additional Information****Gene ID** 5788**Other Names**

Receptor-type tyrosine-protein phosphatase C, 3.1.3.48, Leukocyte common antigen, L-CA, T200, CD45, PTPRC, CD45

**Application Note**

<span class = "dilution\_WB">WB~~1:1000</span><br \><span class = "dilution\_IHC">IHC~~1:100~500</span><br \><span class = "dilution\_IF">IF~~1:50~200</span><br \><span class = "dilution\_FC">FC~~1:10~50</span>

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

CD45RB (B-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**CD45RB (B-Cell Marker) Antibody - With BSA and Azide - Protein Information****Name** PTPRC ([HGNC:9666](#))**Synonyms** CD45**Function**

Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor (PubMed:<a href="http://www.uniprot.org/citations/35767951" target="\_blank">35767951</a>). 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). Interacts with CLEC10A at antigen presenting

cell-T cell contact; CLEC10A on immature dendritic cells recognizes Tn antigen- carrying PTPRC/CD45 receptor on effector T cells and modulates T cell activation threshold to limit autoreactivity.

**Cellular Location**

Cell membrane; Single-pass type I membrane protein. Membrane raft. Synapse. Note=Colocalized with DPP4 in membrane rafts.

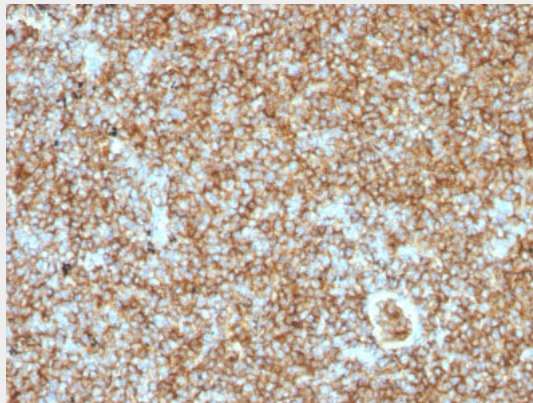
**Tissue Location**

Isoform 1: Detected in thymocytes. Isoform 2: Detected in thymocytes. Isoform 3: Detected in thymocytes. Isoform 4: Not detected in thymocytes. Isoform 5: Detected in thymocytes. Isoform 6: Not detected in thymocytes. Isoform 7: Detected in thymocytes Isoform 8: Not detected in thymocytes.

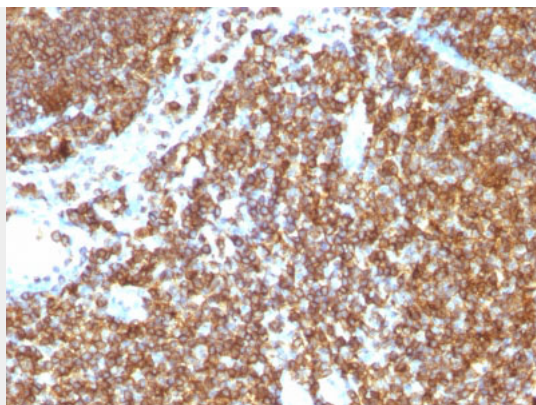
**CD45RB (B-Cell Marker) Antibody - With BSA and Azide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

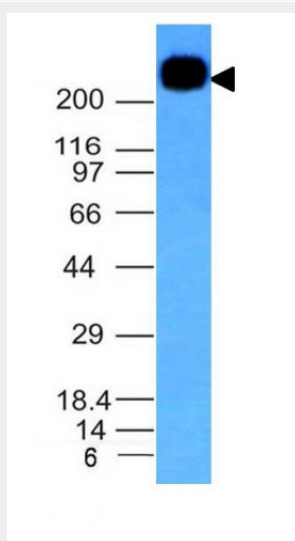
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**CD45RB (B-Cell Marker) Antibody - With BSA and Azide - Images**

Formalin-fixed, paraffin-embedded human Lymphoma stained with CD45RB Monoclonal Antibody (PTPRC/1147).



Formalin-fixed, paraffin-embedded human Tonsil stained with CD45RB Monoclonal Antibody (PTPRC/1147).



Western Blot Analysis of Daudi Cell Lysate using CD45RB Monoclonal Antibody (PTPRC/1147).

#### **CD45RB (B-Cell Marker) Antibody - With BSA and Azide - Background**

CD45R, also designated CD45 and PTPRC, has been identified as a transmembrane glycoprotein, broadly expressed among hematopoietic cells. Multiple isoforms of CD45R are distributed throughout the immune system according to cell type. These isoforms arise because of alternative splicing of exons 4, 5, and 6. The corresponding protein domains are characterized by the binding of monoclonal antibodies specific for CD45RA (exon 4), CD45RB (exon 5), CD45RC (exon 6) and CD45RO (exons 4 to 6 spliced out). The variation in these isoforms is localized to the extracellular domain of CD45R, while the intracellular domain is conserved. CD45RB is expressed on mature B-lymphocytes and the majority of lymphomas and leukemias of B-cell origin.

#### **CD45RB (B-Cell Marker) Antibody - With BSA and Azide - References**

Gatter KC et. al. Lancet, 1985 Jun 8, 1(8441):1302-5. | Michie SA et. al. American Journal of Clinical Pathology, 1987, 88(4):457-62