

**CD45RA (Leucocyte Marker) Antibody - With BSA and Azide  
Mouse Monoclonal Antibody [Clone PTPRC/818 ]  
Catalog # AH12176****Specification****CD45RA (Leucocyte Marker) Antibody - With BSA and Azide - Product Information**

Application	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 / IgG2a, kappa
Calculated MW	205-220kDa KDa

**CD45RA (Leucocyte 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**

IHC~~1:100~500  
IF~~1:50~200  
FC~~1:10~50

**Storage**

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

**Precautions**

CD45RA (Leucocyte Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**CD45RA (Leucocyte 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: [35767951](http://www.uniprot.org/citations/35767951)). 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**

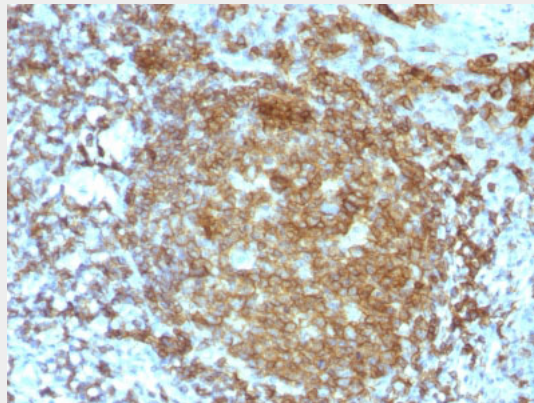
Isoform 1: Detected in thymocytes. Isoform 2: Detected in thymocytes. Isoform 3: Detected in thymocytes. Isoform 4: Not detected in thymocytes. Isoform 5: Detected in thymocytes. Isoform 6: Not detected in thymocytes. Isoform 7: Detected in thymocytes Isoform 8: Not detected in thymocytes.

### **CD45RA (Leucocyte 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](#)

### **CD45RA (Leucocyte Marker) Antibody - With BSA and Azide - Images**



Formalin-fixed, paraffin-embedded human Tonsil stained with CD45RA Monoclonal Antibody (PTPRC/818).

### **CD45RA (Leucocyte Marker) Antibody - With BSA and Azide - Background**

Recognizes a protein of 205kDa-220kDa, identified as CD45RA. CD45RA is isoforms of the human leukocyte common antigen (CD45). Human CD45 contains three exons which encode peptide segments designated A, B and C, respectively. The differential splicing of the exons generates at least five isoforms, ABC, AB, BC, B and O. This antibody reacts with ABC and BC isoforms. CD45RA is expressed on 40-50% of peripheral CD4+ T-cells, 50% of peripheral CD8+ T-cells, B-cells, and leukemic B-cell lines. T-cells expressing CD45RA are naive or virgin T-cells. T-cells expressing CD45RO are memory T-cells. CD45RA and CD45RO define complementary, predominantly non-overlapping populations of resting peripheral T-cells. This MAb is useful in study on the

subpopulation of CD4+ or CD8+ T-cells. It can especially be used to differentiate T-cell lymphomas (CD45RO +ve) from B cell lymphomas (CD45RA +ve).

#### **CD45RA (Leucocyte Marker) Antibody - With BSA and Azide - References**

West, K.P., et al. 1986. The demonstration of B-cell, T-cell and myeloid antigens in paraffin sections. J. Pathol. 150: 89-101. | Streuli, M., et al. 1987. Differential usage of three exons generates at least five different mRNAs encoding human leukocyte common antigens. J. Exp. Med. 166: 1548-1566