

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

Mouse Monoclonal Antibody [Clone PTPRC/1148 ]  
Catalog # AH12188

## 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 / IgG1, kappa                           |
| Clone Names       | PTPRC/1148                                    |
| Calculated MW     | 147486  |

## 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. |

## Protein Information

---

|          |  |
|----------|--|
| Name     | PTPRC ( <a href="#">HGNC:9666</a> )  |
| Synonyms | CD45   |
| Function | Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor (PubMed: <a href="#">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. |

|                          |  |
|--------------------------|--|
| <b>Cellular Location</b> | Cell membrane; Single-pass type I membrane protein. Membrane raft. Synapse. Note=Colocalized with DPP4 in membrane rafts.  |
| <b>Tissue Location</b>   | 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. |

## Background

---

Recognizes a protein of 205kDa-220kDa, identified as CD45RA. It is an isoform 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).

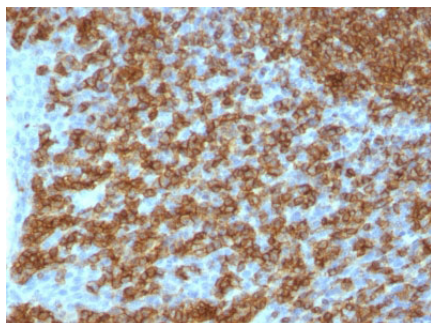
## References

---

West, K.P., et al. 1986. The demonstration of B-cell, T-cell and myeloid antigens in paraffin sections. J. Pathol. 150: 89-101

## Images

---



Formalin-fixed, paraffin-embedded human Tonsil stained with CD45RA Monoclonal Antibody (PTPRC/1148).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.