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# CD45RB Antibody [Clone BRA-11; same as BRA-11G]
**Purified Mouse Monoclonal Antibody**
**Catalog # AH10087**

## Specification

### CD45RB Antibody [Clone BRA-11; same as BRA-11G] - Product Information

| | |
|---|---|
| Application | **FC** |
| Primary Accession | P08575 |
| Reactivity | **Human** |
| Host | **Mouse** |
| Clonality | **Monoclonal** |
| Isotype | **IgG1, kappa** |
| Calculated MW | **180-220kDa KDa** |

### CD45RB Antibody [Clone BRA-11; same as BRA-11G] - Additional Information

**Gene ID** 5788

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

**Target/Specificity**
Non-T, non-B CALLA positive ALL cell line REH (Leucocyte Workshop IV and V)

**Application Note**
FC~~1:10~50

**Format**
0.5 ml at 100ug/ml; Conjugated to AF488

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

**Precautions**
CD45RB Antibody [Clone BRA-11; same as BRA-11G] is for research use only and not for use in diagnostic or therapeutic procedures.

### CD45RB Antibody [Clone BRA-11; same as BRA-11G] - 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.

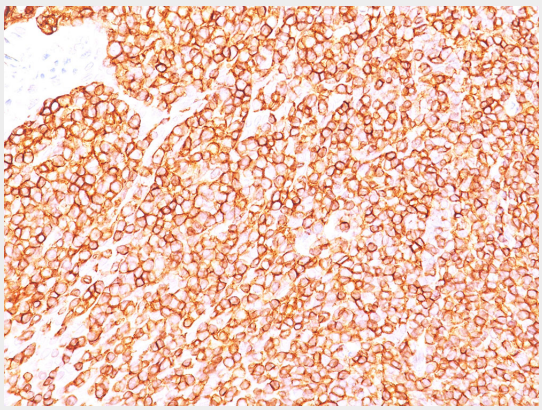
**Tissue Location**
Isoform 1: Detected in thymocytes. Isoform 2: Detected in thymocytes. Isoform 3: Detected in thymocytes. Isoform 4: Not detected in thymocytes. Isoform 5: Detected in thymocytes. Isoform 6: Not detected in thymocytes. Isoform 7: Detected in thymocytes Isoform 8: Not detected in thymocytes.

## CD45RB Antibody [Clone BRA-11; same as BRA-11G] - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## CD45RB Antibody [Clone BRA-11; same as BRA-11G] - Images



Formalin-fixed, paraffin-embedded human tonsil stained with CD45RB Ab (BRA-11).

## CD45RB Antibody [Clone BRA-11; same as BRA-11G] - 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. CD45R functions as a phosphor-tyrosine phosphatase. Antibody to CD45 is useful in differential diagnosis of lymphoid tumors from non-hematopoietic undifferentiated neoplasms.

**CD45RB Antibody [Clone BRA-11; same as BRA-11G] - References**

1. Sedlak et al. Neoplasma 1989: 643, 1989.
2. Sutherland et.al Int. Immunol., 14(8): 953 – 962 (August 1, 2002)
3. Lim et.al Int. Immunol., 18(2):291-300 (2006)