Human CD45RB APC-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 1068228
Catalog Number: FAB11434A
100 Tests

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD45RB in direct ELISA.
Source	Monoclonal Mouse IgG_1 Clone # 1068228
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese Hamster Ovary cell line, CHO-derived human CD45RB Gln26-Lys463 Accession # P08575
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

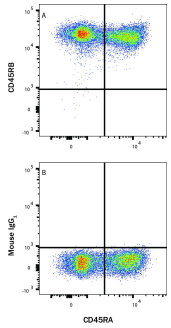
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	PBMC lymphocytes

DATA

Flow Cytometry



Detection of CD45RB in PBMC lymphocytes cells by Flow Cytometry. PBMC lymphocytes were stained with either (A) Mouse Anti-Human CD45RB APC-conjugated Monoclonal Antibody (Catalog # FAB11434A) or (B) Mouse IgG_1 Allophycocyanin Isotype Control (Catalog # IC002A). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

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BACKGROUND

CD45, previously called LCA (leukocyte common antigen), T200, or Ly5 in mice, is member C of the class 1 (receptor-like) protein tyrosine phosphatase family (PTPRC) (1, 2). It is a variably glycosylated 180-220 kDa transmembrane protein that is abundantly expressed on all nucleated cells of hematopoietic origin (1-3). Multiple splicing isoforms of exon 4 (A), 5 (B), and 6 (C) are expressed according to cell type, developmental stage and antigenic exposure (1-5). The longest form, CD45RABC (called B220 in mouse) is expressed on B lymphocytes and the shortest form, CD45R0 is expressed on memory cells (5). Isoform CD45RB contains exon 5 (B exon) in the extracellular domain, which shares 41% and 40% homology with the ECD of mouse and rat CD45RB. CD45 has been best studied in T cells, where it determines T cell receptor signaling thresholds (3, 6-8). 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 (9, 10). Interaction of galaction can be fine-tuned by varying usage of the heavily O-glycosylated spliced regions and sialylation of N-linked carbohydrates of CD45 (4, 9). Within the immunological synapse, CD45 dephosphorylates and negatively regulates the Src family kinase, Lck (8-10). In other leukocytes, CD45 influences differentiation and links immunoreceptor signaling with cytokine secretion and cell survival, partially overlapping in function with DEP-1/CD148 (11-14). CD45 deletion causes in severe immunodeficiency, while point mutations may be associated with autoimmune disorders (6, 7).

References:

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