

FITC anti-human CD45RB Antibody

Catalog# / Size	310205 / 25 tests 310206 / 100 tests
Clone	MEM-55
Regulatory Status	RUO
Workshop	V CD45.08
Other Names	CD45RB
Isotype	Mouse IgG2b, κ
Description	CD45RB is a 180-240 kD single chain type I membrane glycoprotein. It is an exon 5 splice variant of the tyrosine phosphatase CD45. The CD45RB isoform is expressed on thymocytes, T cell subsets, B cells, monocytes/macrophages, granulocytes, and dendritic cells. CD45RB enhances both T cell receptor and B cell receptor signaling mediated activation. CD45 and its isoforms non-covalently associate with lymphocyte phosphatase-associated phosphoprotein (LPAP) on T and B lymphocytes. CD45 has been reported to be associated with several other cell surface antigens including CD1, CD2, CD3, and CD4. CD45 has also been reported to bind galectin-1. CD45 isoform expression can change in response to cytokines. The MEM-55 antibody recognizes a silaidase-sensitive epitope of CD45.

Product Details

Reactivity	Human, African Green, Baboon, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human thymocytes and T lymphocytes
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm)
Application Notes	The MEM-55 antibody is specific for a glycosylated-CD45RB epitope that is highly expressed on memory B cells and plasmablasts but not on naïve B cells. Additional reported applications (for the relevant formats) include: immunoprecipitation, Western blotting, and immunohistochemical staining of formalin-fixed paraffin-embedded tissue sections.
Application References	<ol style="list-style-type: none"> Horejsi V, <i>et al.</i> 1988. <i>Folia Biol.</i> 34:23. Bazil V, <i>et al.</i> 1989. <i>Immunogenetics</i> 29:202. Knapp W, <i>et al.</i> 1989. <i>Leucocyte Typing IV</i>. Oxford University Press. New York. Schlossman S, <i>et al.</i> Eds. 1995. <i>Leucocyte Typing V</i>. Oxford University Press. New York. Koethe S, <i>et al.</i> 2011. <i>J. Leukoc. Biol.</i> 90:5.
(PubMed link indicates BioLegend citation)	
Product Citations	<ol style="list-style-type: none"> Kaneko N, <i>et al.</i> 2020. <i>Cell.</i> 183(1):143-157.e13. PubMed

2. Shehata L, *et al.* 2019. Nat Commun. 10:1126. [PubMed](#)

RRID AB_2687313 (BioLegend Cat. No. 310205)
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Antigen Details

Structure	Tyrosine phosphatases, type I transmembrane, 180-240 kD (exon 5 splicing of CD45 gene)
Distribution	Thymocytes, T cell subset, B cells, monocytes/macrophages, granulocytes, dendritic cells
Function	Enhances TCR and BCR signaling
Ligand/Receptor	Galectin-1, CD2, CD3, CD4
Cell Type	B cells, Dendritic cells, Granulocytes, Macrophages, Monocytes, T cells, Thymocytes, Tregs
Biology Area	Cell Biology, Immunology, Inhibitory Molecules, Neuroscience, Neuroscience Cell Markers
Molecular Family	CD Molecules
Antigen References	1. Thomas M. 1989. <i>Annu. Rev. Immunol.</i> 7:339. 2. Trowbridge I, <i>et al.</i> 1994. <i>Annu. Rev. Immunol.</i> 12:85.
Gene ID	5788

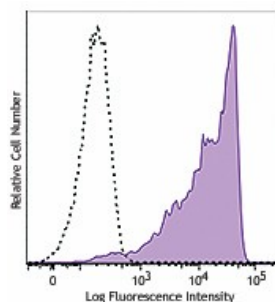
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE anti-human CD45RB, Purified anti-human CD45RB, FITC anti-human CD45RB, Alexa Fluor® 594 anti-human CD45RB, TotalSeq™-A0844 anti-human CD45RB, TotalSeq™-C0844 anti-human CD45RB Antibody, TotalSeq™-B0844 anti-human CD45RB

Product Data



Human peripheral blood lymphocytes stained with FITC anti-human CD45RB (clone MEM-55) (filled histogram) or FITC mouse IgG2b, κ isotype control (open histogram).

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587

