

Alexa Fluor® 594 anti-human CD45RB Antibody

Catalog# / Size	310207 / 25 µg 310208 / 100 µg
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

Verified Reactivity	Human
Reported Reactivity	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.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 594 under optimal conditions.
Concentration	0.5 mg/ml
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	IHC-P - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration range of 5.0 - 10.0 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 594 has an excitation maximum of 590 nm, and a maximum emission of 617 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
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	1. Horejsi V, <i>et al.</i> 1988. <i>Folia Biol.</i> 34:23. 2. Bazil V, <i>et al.</i> 1989. <i>Immunogenetics</i> 29:202.

- Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York.
- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
- Koethe S, *et al.* 2011. *J. Leukoc. Biol.* 90:5.

RRID AB_2734281 (BioLegend Cat. No. 310207)
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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

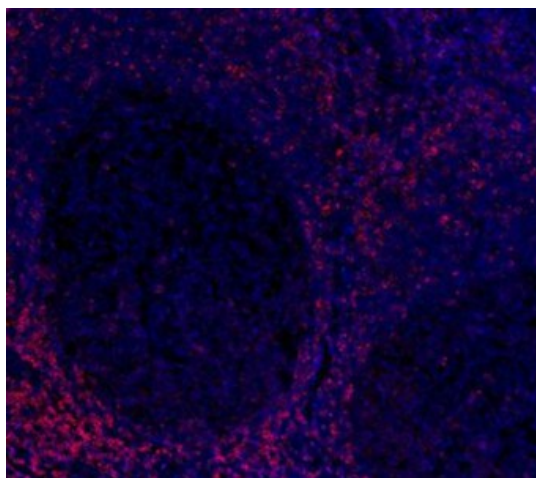
Related Protocols

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

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 paraffin-embedded tonsil tissue slices were prepared with a standard protocol of deparaffinization and rehydration. Antigen retrieval was done with Citrate Buffered 1X (10 mM, pH 6.0) at 95°C for 40 minutes. Tissue was washed with PBS/0.05% Tween 20 twice for five minutes and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the tissue was stained with 10 µg/mL of Alexa Fluor® 594 goat anti-CD45RB (clone MEM-55) antibody (red) over night at 4°C. Nuclei were counterstained with DAPI (blue). The image was scanned with a 10X objective and stitched with MetaMorph® software.

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