

Purified anti-mouse CD45RB Antibody

Catalog# / Size	151602 / 100 µg
Clone	MB4B4
Regulatory Status	RUO
Other Names	CD45RB
Isotype	Rat IgG2a, κ
Description	CD45RB is a 220 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 plays a critical role in TCR and BCR signaling. As T cells become activated and progress from naïve to memory cells, CD45RB expression is downregulated. Additionally, functionally distinct CD4 ⁺ T cell subsets, which secrete differing cytokine profiles, can be separated by CD45RB intensity. The primary ligands for CD45 are galectin-1, CD2, CD3, CD4 and Thy-1.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	anti-Ig activated murine B cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
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 ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application References	1. Birkeland ML, <i>et al.</i> 1988. <i>J. Mol. Cell. Immunol.</i> 4:71. 2. Birkeland ML, <i>et al.</i> 1989. <i>Proc. Natl. Acad. Sci. USA</i> 86:6734. 3. Lazarovits AI, <i>et al.</i> 1999. <i>Kidney Int.</i> 55:1303.
(PubMed link indicates BioLegend citation)	
RRID	AB_2572032 (BioLegend Cat. No. 151602)

Antigen Details

Structure	Tyrosine phosphatases, type I transmembrane, 220 kD (exon 5 splicing of CD45 gene).
Distribution	Thymocytes, T cell subset, B cells, monocytes/macrophages, granulocytes, and dendritic cells.
Function	Enhances TCR and BCR signaling.
Ligand/Receptor	Galectin-1, CD2, CD3, and CD4.
Cell Type	Thymocytes, T cells, B cells, Monocytes, Macrophages, Dendritic cells
Biology Area	Cell Biology, Immunology, Neuroscience, Neuroscience Cell Markers, Inhibitory Molecules

Molecular Family CD Molecules

Antigen References

1. Lee KM, *et al.* 2014. *Cell Transplant.* 23:51.
2. Kamanaka M, *et al.* 2011. *J. Exp. Med.* 208:1027.
3. Gagliani N, *et al.* 2011. *PLoS One* 6(12):e28434.
4. Ten Hove T, *et al.* 2004. *J. Leuko. Biol.* 75:1010.
5. Ogilvy S, *et al.* 2003. *J. Immunol.* 171:1792.

Gene ID [19264](#)

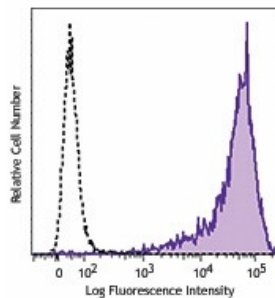
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE anti-mouse CD45RB, Purified anti-mouse CD45RB, FITC anti-mouse CD45RB

Product Data



C57BL/6 mouse splenocytes were stained with purified CD45RB (clone MB4B4, filled histogram) or purified rat IgG2a, κ isotype control (open histogram), followed by anti-rat IgG PE.

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