

PE/Dazzle™ 594 anti-human CD45RO Antibody

Catalog# / Size	376813 / 25 tests 376814 / 100 tests
Clone	S19021B
Regulatory Status	RUO
Other Names	PTPRC, CD45R, B220, T200, GP180
Isotype	Mouse IgG1, λ
Description	CD45RO is a 180 kD single chain membrane glycoprotein. It is a splice variant of tyrosine phosphatase CD45, lacking the A, B, and C determinants. The CD45RO isoform is expressed on activated and memory T cells, some B cell subsets, activated monocytes/macrophages, and granulocytes. CD45RO 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 and CD22. CD45 isoform expression can change in response to cytokines.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Synthetic human CD45 peptide spanning the junction region between exons 3 and 7.
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 PE/Dazzle™ 594 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
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 μ L per million cells in 100 μ L staining volume or 5 μ L per 100 μ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	The S19021B antibody can be used in combination with antibodies against CD45RA to discern memory and naïve T cells. Staining profile by S19021B on human peripheral blood lymphocyte is comparable to that by clone UCHL1. Staining signal by clone S19021B on target cells can be completely blocked by pre-incubation with clone UCHL1; staining of UCHL1 on target cells can be partially blocked by pre-incubation with clone S19021B.

Staining signal by clone S19021B can be significantly increased on the cells after neuraminidase treatment, suggesting that S19021B binding epitope is likely affected by glycosylation.

RRID AB_3662278 (BioLegend Cat. No. 376813)
AB_3662278 (BioLegend Cat. No. 376814)

Antigen Details

Structure	Tyrosine phosphatases, type I transmembrane, 180 kD (isoform of CD45 containing none of the A, B, or C determinants)
Distribution	Activated and memory T cells, B cell subsets, monocytes, macrophages, granulocytes
Function	Enhances TCR and BCR signaling
Cell Type	B cells, Granulocytes, Macrophages, Mesenchymal Stem Cells, Monocytes, T cells, Tregs
Biology Area	Cell Biology, Immunology, Inhibitory Molecules, Neuroscience, Neuroscience Cell Markers, Stem Cells
Molecular Family	CD Molecules
Antigen References	1. Thomas M. 1989. <i>Annu Rev Immunol.</i> 7:339. 2. Trowbridge I, et al. 1994. <i>Annu Rev Immunol.</i> 12:85.
Gene ID	5788

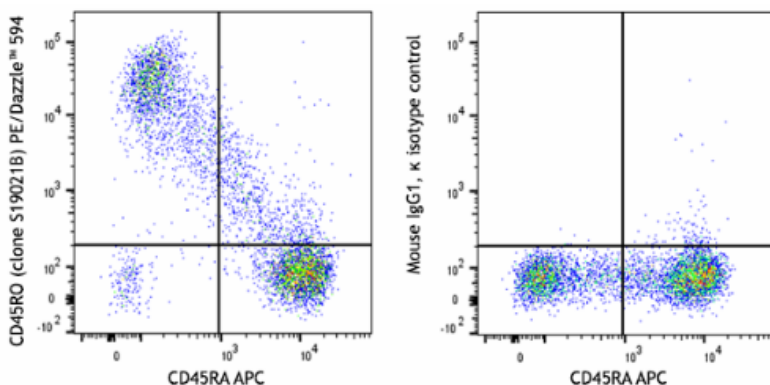
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE anti-human CD45RO, APC/Fire™ 750 anti-human CD45RO, PE/Cyanine7 anti-human CD45RO, APC anti-human CD45RO, Spark PLUS B550™ anti-human CD45RO, PE/Dazzle™ 594 anti-human CD45RO, KIRAVIA Blue 520™ anti-human CD45RO

Product Data



Human peripheral blood lymphocytes were stained with anti-human CD45RA (clone HI100) APC and anti-human CD45RO (clone S19021B) PE/Dazzle™ 594 (left) or mouse IgG1, κ PE/Dazzle™ 594 isotype control (right).

For Research Use Only. Not for diagnostic or therapeutic use.

This product is supplied subject to the terms and conditions, including the limited license, located at www.biolegend.com/terms ("Terms") and may be used only as provided in the Terms. Without limiting the foregoing, BioLegend products may not be used for any Commercial Purpose as defined in the Terms, resold in any form, used in manufacturing, or reverse engineered, sequenced, or otherwise studied or used to learn its design or composition without express written approval of BioLegend. Regardless of the information given in this document, user is solely responsible for determining any license requirements necessary for user's intended use and assumes all risk and liability arising from use of the product. BioLegend is not responsible for patent infringement or any other risks or liabilities whatsoever resulting from the use of its products.

BioLegend, the BioLegend logo, and all other trademarks are property of BioLegend, Inc. or their respective owners, and all rights are reserved.

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