

TECHNICAL DATA SHEET

violetFluor™ 450 Anti-Human CD45RA (HI100)

Catalog Number: 75-0458

PRODUCT INFORMATION

Contents: violetFluor™ 450 Anti-Human CD45RA (HI100)

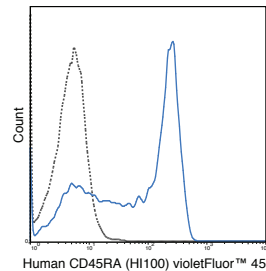
Isotype: Mouse IgG2b, kappa

Concentration: 5 uL (0.5 ug)/test

Clone: HI100

Reactivity: Human

Formulation: 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% NaN₃,
0.1% gelatin, pH7.2



Human peripheral blood lymphocytes were stained with 5 uL (0.5 ug) violetFluor™ 450 Anti-Human CD45RA (75-0458) (solid line) or 0.5 ug violetFluor™ 450 Mouse IgG2b isotype control (dashed line).

DESCRIPTION

The HI100 antibody reacts with the human CD45 isoform known as CD45RA, a protein tyrosine phosphatase of 220 kDa. CD45 is one of the most abundant hematopoietic markers, and is expressed on all leukocytes (the Leukocyte Common Antigen, LCA). Various isoforms are generated and expressed in cell-specific patterns. With their broad cell distribution, CD45 isoforms are critical for many leukocyte functions, regulating signal transduction and cell activation associated with the T cell receptor, B cell receptor, and IL-2 receptor. Other forms of CD45, with restricted cellular expression, include CD45R (B220), CD45RB, CD45RO and others. The HI100 antibody is widely used as a marker for human CD45RA expression on naïve and activated T cells, B cells, and monocytes.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been pre-titrated and quality-tested for flow cytometry using an appropriate cell type. The antibody has been diluted for use at 5 uL per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 uL. The number of cells within a sample should be determined empirically, but typically ranges between 1x10⁵ to 1x10⁸ cells.

violetFluor™ 450 dye is excited by the violet (405 nm) laser and has a peak emission of 450 nm. The most common band pass filters for this dye are 440/40 or 450/50. violetFluor™ 450 can be used as an alternative for Pacific Blue®, BD Horizon™ V450 or eFluor® 450.

REFERENCES

Kroenke MA, Eto, D, Locci M, Cho M, Davidson T, Haddad EK, and Crotty S. 2012. *J. Immunol.* 188: 3734-3744. (Flow Cytometry) Lopez-Verges S, Milush JM, Schwartz BS, Pando MJ, Jarjoura J, York VA, Houchins JP, Miller S, Kang S-M, Norris PJ, Nixon DF, and Lanier LL. 2011. *Proc. Natl. Acad. Sci.* 108: 14725-14732. (Flow Cytometry) Imanguli MM, Swaim WD, League SC, Gress RE, Pavletic SZ, and Hakim FT. 2009. *Blood.* 113: 3620-3630. (Immunohistochemistry - paraffin embedded tissue) Kim M-H, Suh H-S, Si Q, Terman BE, and Lee SC. 2006. *J. Virol.* 80: 62-72. (Western Blot) Weninger W, Carlsen HS, Goodarzi M, Moazed F, Crowley MA, Baekkevold ES, Cavanagh LL, and von Andrian U. 2003. *J. Immunol.* 170: 4638-4648. (Immunohistochemistry – frozen tissue) Yamada T, Zhu D, Saxon A, and Zhang K. 2002. *J. Biol. Chem.* 277(32): 28830-28835. (in vitro blocking)

NOTE: Please choose the appropriate format for each application. Citations are provided as a convenience to you; please consult Materials and Methods sections for additional details about the use of any product in these publications.

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