

## TECHNICAL DATA SHEET

# violetFluor™ 450 Anti-Human CD45 (HI30)

Catalog Number: 75-0459

## PRODUCT INFORMATION

**Contents:** violetFluor™ 450 Anti-Human CD45 (HI30)

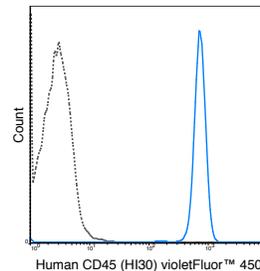
**Isotype:** Mouse IgG1, kappa

**Concentration:** 5 uL (1.0 ug)/test

**Clone:** HI30

**Reactivity:** Human

**Formulation:** 10 mM NaH<sub>2</sub>PO<sub>4</sub>, 150 mM NaCl, 0.09% NaN<sub>3</sub>,  
0.1% gelatin, pH7.2



Human peripheral blood lymphocytes were stained with 5 uL (1.0 ug) violetFluor™ 450 Anti-Human CD45 (75-0459) (solid line) or 1.0 ug violetFluor™ 450 Mouse IgG1 isotype control (dashed line).

## DESCRIPTION

The HI30 antibody reacts with human CD45, one of the most abundant hematopoietic markers and one that is expressed on all leukocytes (the Leukocyte Common Antigen, LCA). CD45 is a protein tyrosine phosphatase existing in several isoforms, each being generated and expressed in cell-specific patterns. With its broad cell distribution, CD45 is 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), CD45RA, CD45RB, CD45RO and others. The HI30 antibody is widely used as a marker for human CD45 expression on T cells, B cells, monocytes, macrophages, and NK cells.

## 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 1x10<sup>5</sup> to 1x10<sup>8</sup> 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

Strowig T, Rongvaux A, Rathinam C, Takizawa H, Borsotti C, Philbrick W, Eynon EE, Manz MG, and Flavell RA. 2011. *Proc. Natl. Acad. Sci.* 108: 13218-13223. (Flow Cytometry). Kim M-H, Suh H-S, Si Q, Terman BE, and Lee SC. 2006. *J. Virol.* 80: 62-72. (in vitro blocking, Western Blot). Zhang M and Varki A. 2004. *Glycobiology.* 14: 939-949. (Immunoprecipitation). Gelbmann CM, Leeb SN, Vogl D, Maendel M, Herfarth H, Scholmerich J, Falk W, and Rogler G. 2003. *Gut.* 52:1448-1456. (Immunocytochemistry). Yamada T, Zhu D, Saxon A, and Zhang K. 2002. *J. Biol. Chem.* 277(32): 28830-28835. (in vitro blocking). Esser MT, Graham DR, Coren LV, Trubey CM, Bess JW, Arthur LO, Ott DE, and Lifson JD. 2001. *J. Virol.* 75(13):6173-6182. (Western Blot). Goto E, Kohrogi H, Hirata N, Tsumori K, Hirotsako S, Hamamoto J, Fujii K, Kawano O, and Ando M. 2000. *Am. J. Respir. Cell Mol. Biol.* 22: 405. (Immunohistochemistry – frozen tissue). Esser MT, Graham DR, Coren LV, Trubey CM, Bess JW, Arthur LO, Ott DE, and Lifson JD. 2001. *J. Virol.* 75(13):6173-6182. (Western Blot).

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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