

**TECHNICAL DATA SHEET**

**PE Anti-Human CD45 (2D1)**

Catalog Number: 50-9459

**PRODUCT INFORMATION**

**Contents:** PE Anti-Human CD45 (2D1)

**Isotype:** Mouse IgG1, kappa

**Concentration:** 5ul (0.5 ug)/test

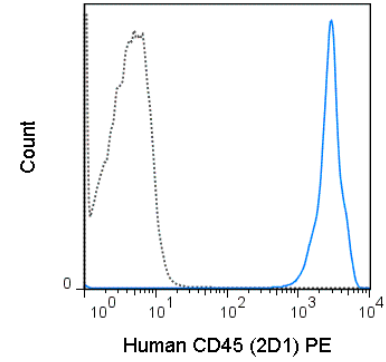
**Clone:** 2D1

**Reactivity:** Human

**Use By:** 12 months from date of receipt

**Storage Conditions:** 2-8°C protected from light

**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 (0.5 ug) PE Anti-Human CD45 (50-9459) (solid line) or 0.5 ug PE Mouse IgG1 isotype control (dashed line).

**DESCRIPTION**

The 2D1 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, and CD45RO. The 2D1 antibody is widely used as a marker for human CD45 expression on peripheral blood 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 µL per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 µL. The number of cells within a sample should be determined empirically, but typically ranges between 1x10e5 to 1x10e8 cells.

**REFERENCES**

Bradstock KF, Janossy G, Pizzolo G, Hoffbrand AV, McMichael A, Pilch JR, Milstein C, Beverley P and Bollum FJ. 1980. J. Natl. Cancer Inst. 65(1): 33-42.  
 Schwinzer R. in Knapp W, Dorken B, et al. eds. 1989. Leucocyte Typing IV: White Cell Differentiation Antigens. Oxford University Press. New York. p. 628-634.  
 Nieminen JK, Sipponen T, Färkkilä M and Vaarala O. 2014. Clin. Exp. Immunol. 177(1): 190-202. (Flow cytometry)  
 Piątośa B, Wolska-Kuśnier B, Pac M, Siewiera K, Gałkowska E and Bernatowska E. 2010. Cytometry Part B. 78B: 372-381. (Flow cytometry)

Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

For Research Use Only.  
 Not for use in diagnostic or therapeutic procedures. Not for resale. Not for distribution without written consent. Tonbo Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Tonbo Biosciences, Tonbo Biosciences Logo and all other trademarks are the property of Tonbo Biotechnologies Corporation. © 2013 Tonbo Biosciences.