

APC/Fire™ 750 anti-human CD45RO

Catalog # / Size: 2121245 / 25 tests
2121250 / 100 tests

Clone: UCHL1

Isotype: Mouse IgG2a, κ

Immunogen: IL-2 dependent T cell line, CA1

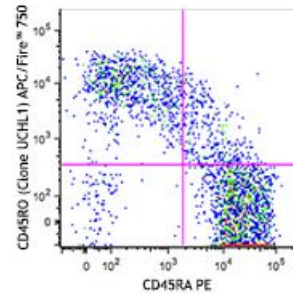
Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with APC/Fire™

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Workshop Number: 750 under optimal conditions.

Concentration: Lot-specific



Human peripheral blood lymphocytes were stained with CD45RA PE and CD45RO (clone UCHL1) APC/Fire™ 750 (top) or mouse IgG2a, κ APC/Fire™ 750 isotype control (bottom).

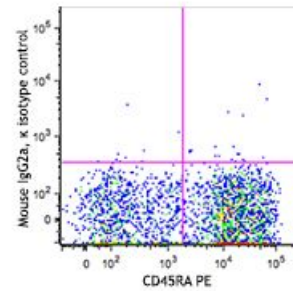
Applications:

Applications: Flow Cytometry

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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.

Application Notes: The UCHL1 antibody is commonly used in combination with antibodies against CD45RA to discern memory and naïve T cells. Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections⁵ and formalin-fixed paraffin-embedded tissue sections⁴, Western blotting², and immunoprecipitation³.



**Application
References:**

1. Knapp W, et al. Eds. 1989. Leucocyte Typing IV. Oxford University Press. New York. (FC)
 2. Ishii T, et al. 2001. *P. Natl. Acad. Sci. USA* 98:12138. (WB)
 3. Ponsford M, et al. 2001. *Clin. Exp. Immunol.* 124:315. (IP)
 4. Yamada M, et al. 1996. *Stroke* 27:1155. (IHC)
 5. Sakkas LI, et al. 1998. *Clin. Diagn. Lab. Immunol.* 5:430. (IHC)
 6. Baba N, et al. 2010. *Int. Immunol.* 22:237. [PubMed](#)
 7. Thakral D, et al. 2008. *J. Immunol.* 180:7431. (FC) [PubMed](#)
 8. Weiss L, et al. 2010. *P. Natl. Acad. Sci. USA* 107:10632. [PubMed](#)
 9. Wu YY, et al. 2007. *Infect. Immun.* 75:4357. [PubMed](#)
 10. Mozaffarian N, et al. 2008. *Rheumatology* 47:1335. [PubMed](#)
 11. Roque S, et al. 2007. *J. Immunol.* 178:8028. [PubMed](#)
 12. Yoshino N, et al. 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
 13. Smith SH, et al. 1986. *Immunology* 58:63. (Immunogen)
 14. Peterson VM, et al. 2017. *Nat. Biotechnol.* 35:936. (PG)
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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.

**Antigen
References:**

1. Thomas M. 1989. *Annu. Rev. Immunol.* 7:339.
2. Trowbridge I, et al. 1994. *Annu. Rev. Immunol.* 12:85.