

Alexa Fluor® 700 anti-human CD45RO

Catalog # / Size: 2121090 / 100 µg
2121085 / 25 µg

Clone: UCHL1

Isotype: Mouse IgG2a, κ

Immunogen: IL-2 dependent T cell line, CA1

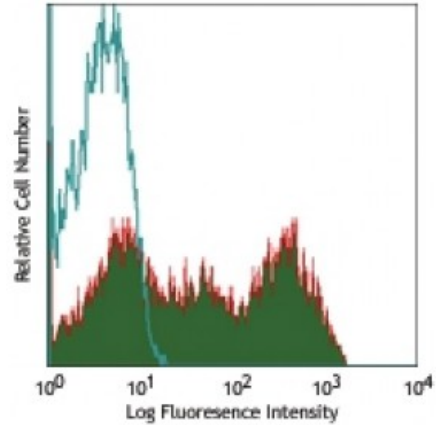
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 700 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Workshop Number: IV N31

Concentration: 0.5



Human peripheral blood lymphocytes stained with UCHL1 Alexa Fluor® 700

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. The suggested use of this reagent is ≤2.0 microg per million cells in 100 microL volume. It is highly recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

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)

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.