

Brilliant Violet 750™ anti-human CD45RO

Catalog # / 2121310 / 100 tests
Size: 2121305 / 25 tests

Clone: UCHL1

Isotype: Mouse IgG2a, κ

Immunogen: IL-2 dependent T cell line, CA1

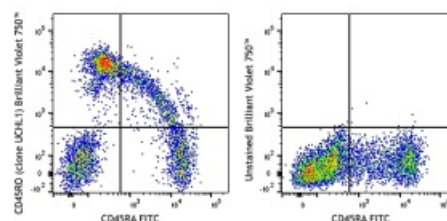
Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 750™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 750™ and unconjugated antibody.

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

Workshop Number: IV N31

Concentration: Lot-specific



Human peripheral blood lymphocytes were stained with CD45RA FITC and CD45RO (clone UCHL1) Brilliant Violet 750™ (left) or unstained for Brilliant Violet 750™ (right).

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.

Brilliant Violet 750™ excites at 405 nm and emits at 750 nm. The bandpass filter 780/60 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 750™ is a trademark of Sirigen Group Ltd.

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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.