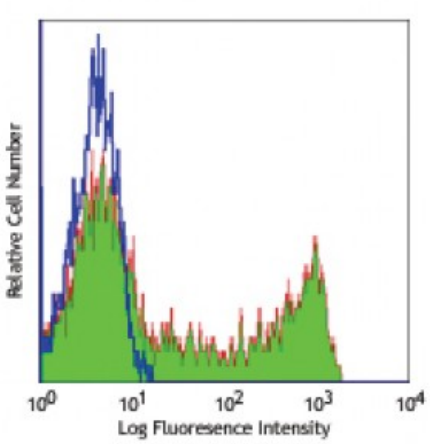
SONY

Product Data Sheet

Alexa Fluor® 488 anti-human CD45RO

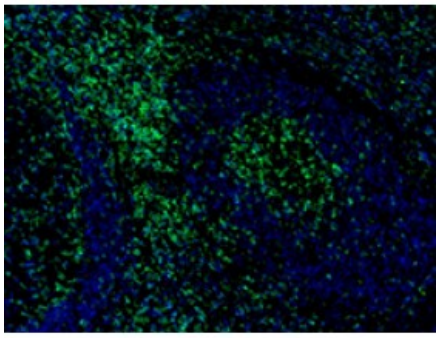
Catalog # / Size:	2121060 / 100 tests
Clone:	UCHL1
Isotype:	Mouse IgG2a, κ
Immunogen:	IL-2 dependent T cell line, CA1
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Workshop Number:	IV N31
Concentration:	NULL



Human peripheral blood lymphocytes stained with UCHL1 Alexa Fluor® 488.

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 microL per million cells or 5 microL per 100 microL of whole blood. For immunohistochemisty, a concentration range of 5-10 microg per ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 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.



Human paraffin-embedded tonsil tissue slices were prepared with a standard protocol of deparaffination and rehydration. Antigen retrieval was done with Tris-Buffered Saline 20X (1.0M, pH7.4) at 95°C for 40 minutes. Tissue was washed with PBS/ 0.05% Tw

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)

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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.