

## Pacific Blue™ anti-human CD45RO

**Catalog # / Size:** 304215 / 25 µg  
304216 / 100 µg

**Clone:** UCHL1

**Isotype:** Mouse IgG2a, κ

**Workshop Number:** IV N31

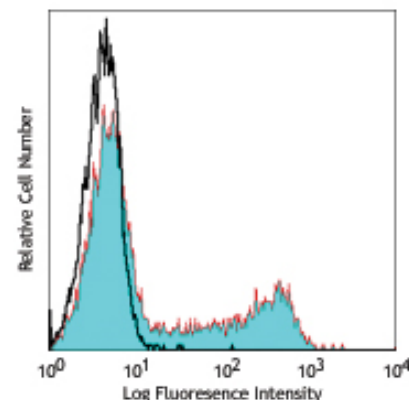
**Reactivity:** Human, **Cross-Reactivity:** Chimpanzee, Common Marmoset

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.

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

**Concentration:** 0.5 mg/ml

**Storage:** The CD45RO antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood lymphocytes stained with UCHL1 Pacific Blue™

## Applications:

**Applications:** FC - Quality tested

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

**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 sections<sup>5</sup> and formalin-fixed paraffin-embedded tissue sections<sup>4</sup>, Western blotting<sup>2</sup>, and immunoprecipitation<sup>3</sup>.

**Application References:**

- Knapp W, *et al.* Eds. 1989. Leucocyte Typing IV. Oxford University Press. New York. (FC)
- Ishii T, *et al.* 2001. *P. Natl. Acad. Sci. USA* 98:12138. (WB)
- Ponsford M, *et al.* 2001. *Clin. Exp. Immunol.* 124:315. (IP)
- Yamada M, *et al.* 1996. *Stroke* 27:1155. (IHC)
- Sakkas LI, *et al.* 1998. *Clin. Diagn. Lab. Immunol.* 5:430. (IHC)
- Baba N, *et al.* 2010. *Int. Immunol.* 22:237. PubMed
- Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. (FC) PubMed
- Weiss L, *et al.* 2010. *P. Natl. Acad. Sci. USA* 107:10632. PubMed
- Wu YY, *et al.* 2007. *Infect. Immun.* 75:4357. PubMed
- Mozaffarian N, *et al.* 2008. *Rheumatology* 47:1335. PubMed
- Roque S, *et al.* 2007. *J. Immunol.* 178:8028. PubMed
- Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
- Shen H, *et al.* 2013. *PLoS One.* 8:e57746. PubMed
- Long HM, *et al.* 2013. *J Exp Med.* PubMed

**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:**

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

Related Products:	Product	Clone	Application
	Cell Staining Buffer		FC, ICC, ICFC
	RBC Lysis Buffer (10X)		FC, ICFC
	Pacific Blue™ Mouse IgG2a, κ Isotype Ctrl	MOPC-173	FC, ICFC
	Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.



\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.