

11-498-C025

## Monoclonal Antibody to CD45R0 Purified Antibody (0.025 mg)

<b>Clone:</b>	UCHL1
<b>Isotype:</b>	Mouse IgG2a
<b>Specificity:</b>	The antibody UCHL1 recognizes CD45R0, a 180 kDa low molecular weight isoform of the leukocyte common antigen (LCA). The antigen is expressed on a subset of memory/activated T cells and on cortical thymocytes. HLDA III; WS Code NL 826 HLDA III; WS Code T 128 HLDA IV; WS Code NL 31 HLDA V; WS Code BP BP460 HLDA V; WS Code T T-081 HLDA V; WS Code T T-CD45.43
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Human IL-2 dependent T cells
<b>Species Reactivity:</b>	Human
<b>Application:</b>	Flow Cytometry Application note: Use 10 µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100 µl. Immunoprecipitation Immunohistochemistry (paraffin sections) Pretreatment: This product does not require protein digestion pretreatment of paraffin sections. This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections. Positive tissue: tonsil Immunohistochemistry (frozen sections) Positive tissue: tonsil
<b>Purity:</b>	> 95% (by SDS-PAGE)
<b>Purification:</b>	Purified by protein-G affinity chromatography
<b>Concentration:</b>	1 mg/ml
<b>Storage Buffer:</b>	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
<b>Storage / Stability:</b>	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label

**For laboratory research only, not for drug, diagnostic or other use.**

**Antibodies****Background:**

CD45R0 is the shortest isoform of a receptor-type protein tyrosine phosphatase, CD45 glycoprotein. CD45 is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases, promotes cell survival by modulating integrin-mediated signal transduction pathway and is also involved in DNA fragmentation during apoptosis. CD45 isoforms differ in their extracellular domains, whereas they share identical transmembrane and cytoplasmic domains. These isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. CD45R0 is expressed e.g. on macrophages, CD8+ T cells, activated T cells and myeloma cells.

**References:**

- \*Li FJ, Tsuyama N, Ishikawa H, Obata M, Abroun S, Liu S, Otsuyama K, Zheng X, Ma Z, Maki Y, Kawano MM: A rapid translocation of CD45R0 but not CD45RA to lipid rafts in IL-6-induced proliferation in myeloma. *Blood*. 2005 Apr 15;105(8):3295-302.
- \*Cosenza-Nashat MA, Kim MO, Zhao ML, Suh HS, Lee SC: CD45 isoform expression in microglia and inflammatory cells in HIV-1 encephalitis. *Brain Pathol*. 2006 Oct;16(4):256-65.
- \*Dawes R, Petrova S, Liu Z, Wraith D, Beverley PC, Tchilian EZ. Combinations of CD45 isoforms are crucial for immune function and disease. *J Immunol*. 2006 Mar 15;176(6):3417-25.
- \*Bijian K, Zhang L, Shen SH: Collagen-mediated survival signaling is modulated by CD45 in Jurkat T cells. *Mol Immunol*. 2007 Jul;44(15):3682-90.
- \*Desharnais P, Dupéré-Minier G, Hamelin C, Devine P, Bernier J: Involvement of CD45 in DNA fragmentation in apoptosis induced by mitochondrial perturbing agents. *Apoptosis*. 2007 Dec 19
- \*Norton AJ, Ramsay AD, Smith SH, Beverley PC, Isaacson PG: Monoclonal antibody (UCHL1) that recognises normal and neoplastic T cells in routinely fixed tissues. *J Clin Pathol*. 1986 Apr;39(4):399-405.
- \*Smith SH, Brown MH, Rowe D, Callard RE, Beverley PC: Functional subsets of human helper-inducer cells defined by a new monoclonal antibody, UCHL1. *Immunology*. 1986 May;58(1):63-70.
- \*Beverley PC.: Human T cell subsets. *Immunol Lett*. 1987 Apr;14(4):263-7.
- \*Leukocyte Typing III., McMichael A. J. et al (Eds.), Oxford University Press (1987).
- \*Akbar AN, Terry L, Timms A, Beverley PC, Janossy G: Loss of CD45R and gain of UCHL1 reactivity is a feature of primed T cells. *J Immunol*. 1988 Apr 1;140(7):2171-8.
- \*Terry LA, Brown MH, Beverley PC: The monoclonal antibody, UCHL1, recognizes a 180,000 MW component of the human leucocyte-common antigen, CD45. *Immunology*. 1988 Jun;64(2):331-6.
- \*Beverley PC, Merckenschlager M, Terry L: Phenotypic diversity of the CD45 antigen and its relationship to function. *Immunol Suppl*. 1988;1:3-5.
- \*Merckenschlager M, Terry L, Edwards R, Beverley PC: Limiting dilution analysis of proliferative responses in human lymphocyte populations defined by the monoclonal antibody UCHL1: implications for differential CD45 expression in T cell memory formation. *Eur J Immunol*. 1988 Nov;18(11):1653-61.
- \*Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
- \*Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
- \*And many other.

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