

**PERFORMANCE DATA SHEET**

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**Monoclonal anti-human CD45RO/Biotin\***

**mAb name/Clone:** UCHL1

**Isotype:** Mouse IgG2a

**Immunogen:** Cultured human T cell line CA-1

**CATALOG#:** 194-030

**QUANTITY:** 100 µg

**CONCENTRATION:** 1.0 mg/ml

**INFORMATION:** Human CD45 is expressed on all cells of hematopoietic origin, except erythrocytes. CD45 is a transmembrane tyrosine phosphatase which can exist in at least nine different isoforms resulting from tissue-specific alternative RNA splicing of exons 4-7 of a single gene coding for the various N-terminal peptide segments. The CD45RO isoform contains none of the alternatively spliced exons and is present on most thymocytes, a subpopulation of resting (memory) T cells within both CD4 and CD8 subsets as well as on monocytes and granulocytes. CD45RO plays an essential role in lymphocyte activation. Antibody UCHL1 recognizes the CD45RO isoform of about 180 kd.

**References:** S.H. Smith, et al, (1986) *Immunology* **58**: 63-70. M. Streulo, et al, (1988) *J Immunol* **141**: 3910-3914. M. Merckenschlager & P.C.L. Beverly, (1989) *Intl Immunol* **1**: 450-459. I.S. Trowbridge & M.L. Thomas, (1994) *Annu Rev Immunol* **12**: 85-116. *Leukocyte Typing V* (S.F. Schlossman, et al, eds.) Oxford University Press, Oxford, (1995) p. 386-399. D. Leitenberg, et al, (1996) *J Exp Med* **183**: 249-259.

**STORAGE CONDITIONS:** Store at 2 - 5°C. Freeze/thawing not recommended.

**PRODUCT STABILITY:** Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date: \_\_\_\_\_

**BUFFER:** 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN<sub>3</sub> (as a preservative).

**PRODUCTION:** Antibody from (low FBS containing) tissue culture supernatant was Protein A purified to >95% mouse immunoglobulin by SDS-PAGE (<1% bovine immunoglobulin), and reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate using a desalting column.

**PERFORMANCE:** Five x 10<sup>5</sup> ficoll prepared human peripheral blood mononuclear cells per tube were washed and pre incubated 5 minutes with 20 µl of 250 µg/ml human IgG (to block nonspecific binding) after which they were incubated 45 minutes on ice with 80µl of anti-CD45RO/Biotin at 10 µg/ml. Cells were washed twice and incubated with 2<sup>o</sup> reagent Streptavidin/R-Phycoerythrin (Catalog #253-050), after which they were washed three times, fixed and analyzed by FACS using a lymphoid gate. A net 20.5% sub population of the cells stained positive with a mean shift of 1.89 log<sub>10</sub> fluorescent units when compared to a Mouse IgG2a/Biotin negative control (Catalog #281-030). Binding was blocked when cells were pre incubated 10 minutes with 20 µl of 0.5 mg/ml anti-CD45RO antibody (Catalog #194-020).

*\*This Product is intended for Laboratory Research use only.*

**Binding of anti-CD45RO/Biotin +SA/PE to human PBL**

