

**Anti-Human CD45RO
Antibody, Clone UCHL1, Biotin**



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Antibodies

Mouse monoclonal IgG2a antibody
against human, chimpanzee, common
marmoset CD45RO, biotin-conjugated

Catalog #60097BT

100 µg 0.5 mg/mL

Product Description

The UCHL1 antibody reacts with an extracellular epitope on CD45RO, the shortest isoform of CD45, a type I transmembrane glycoprotein, and member of the protein tyrosine phosphatase family (receptor class 1/6 subfamily). Alternative splicing of exons 4, 5, and 6 that encode the extracellular RA, RB, and RC polypeptides of CD45 gives rise to up to 8 isoforms with molecular masses of 180 - 240 kDa. Excision of all three exons generates the ~180 kDa CD45RO isoform, which is expressed on activated and memory (but not naïve) T cells, some B cell subsets, activated monocytes and macrophages, and granulocytes. CD45RO enhances both T cell receptor- and B cell receptor-mediated activation and is a known ligand for CD22 on B cells. The UCHL1 antibody has been used to identify T-cell lymphomas and leukemia, and is commonly used in combination with antibodies against CD45RA to discern memory and naïve T cells. The proportion of CD45RO+ (memory) T cells typically increases with age. The UCHL1 epitope is destroyed by treatment with neuraminidase or O-glycosidase.

Target Antigen Name:	CD45RO
Alternative Names:	B220, CD45, GP180, LCA, L-CA, LY5, Protein tyrosine phosphatase receptor type C, PTPRC, T200
Gene ID:	5788
Species Reactivity:	Human, Chimpanzee, Common Marmoset; reportedly cross-reacts to varying extents with Mouse, Rat, Cow, Dog, some macaques (Rhesus, Pig-tailed)
Host Species:	Mouse (BALB/c)
Clonality:	Monoclonal
Clone:	UCHL1
Isotype:	IgG2a, kappa
Immunogen:	Human IL-2-dependent T-cell line CA1
Conjugate:	Biotin

Applications

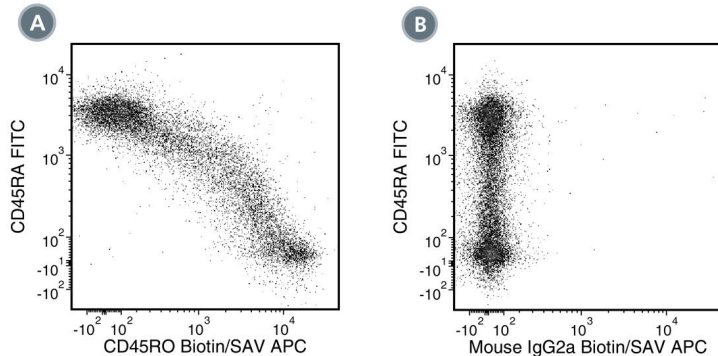
Verified:	CellSep, FC
Reported:	CellSep, FC, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Memory CD4+ T Cell Enrichment Kit (Catalog #19157) and EasySep™ Human Memory CD8+ T Cell Enrichment Kit (Catalog #19159).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Aqueous buffer containing 0.09% sodium azide, may contain carrier protein/stabilizer
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 5 µL (0.25 µg) per 1 × 10 ⁶ cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs; gated on CD3⁺ cells) labeled with Anti-Human CD45RO Antibody, Clone UCHL1, Biotin, followed by streptavidin (SAV) APC and an anti-human CD45RA antibody, FITC

(B) Flow cytometry analysis of human PBMCs (gated on CD3⁺ cells) labeled with Mouse IgG2a, kappa Isotype Control Antibody, Clone MOPC-173, Biotin (Catalog #60071BT), followed by SAV APC and an anti-human CD45RA antibody, FITC.

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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