

Anti-Human CD45RO Antibody, Clone UCHL1, APC



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TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

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Antibodies

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

Catalog #60097AZ
#60097AZ.1

100 Tests 5 µL/test
25 Tests 5 µL/test

Product Description

The UCHL1 antibody reacts with an extracellular epitope on CD45RO, which is 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 eight 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:	APC (Allophycocyanin)

Applications

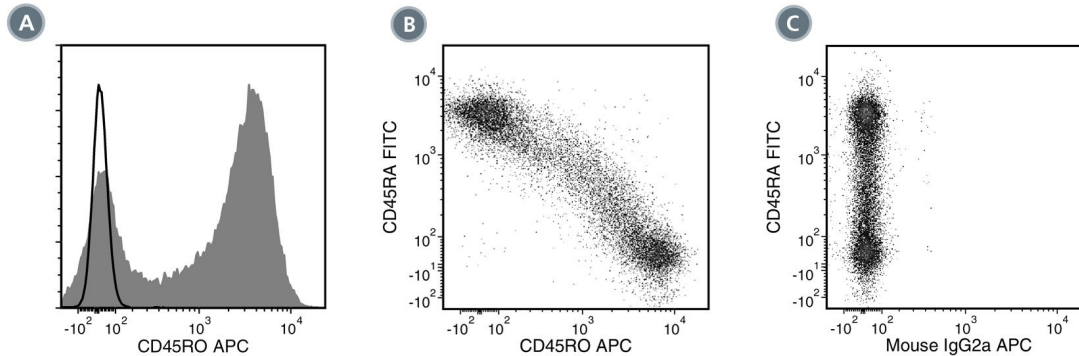
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Memory CD4+ T Cell Enrichment Kit (Catalog #19157) and EasySep™ Human Memory CD8+ T Cell Enrichment Kit (Catalog #19159).

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:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide, may contain carrier protein/stabilizer
Purification:	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 5 µL per 1 x 10 ⁶ cells in 100 µL or per 100 µL of whole blood. 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 (PBMSs) labeled with Anti-Human CD45RO Antibody, Clone UCHL1, APC (filled histogram) or Mouse IgG2a, kappa Isotype Control Antibody, Clone MOPC-173, APC (Catalog #60071AZ) (solid line histogram).

(B) Flow cytometry analysis of human PBMCs (gated on CD3⁺ cells) labeled with Anti-Human CD45RO Antibody, Clone UCHL1, APC, and an anti-human CD45RA antibody, FITC.

(C) Flow cytometry analysis of human PBMCs (gated on CD3⁺ cells) labeled with Mouse IgG2a, kappa Isotype Control Antibody, Clone MOPC-173, 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, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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