

## Anti-Human CD45RO Antibody, Clone UCHL1, PE



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## Antibodies

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

Catalog #60097PE  
#60097PE.1

100 Tests 5  $\mu$ L/test  
25 Tests 5  $\mu$ L/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 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:	PE (Phycoerythrin)

## Applications

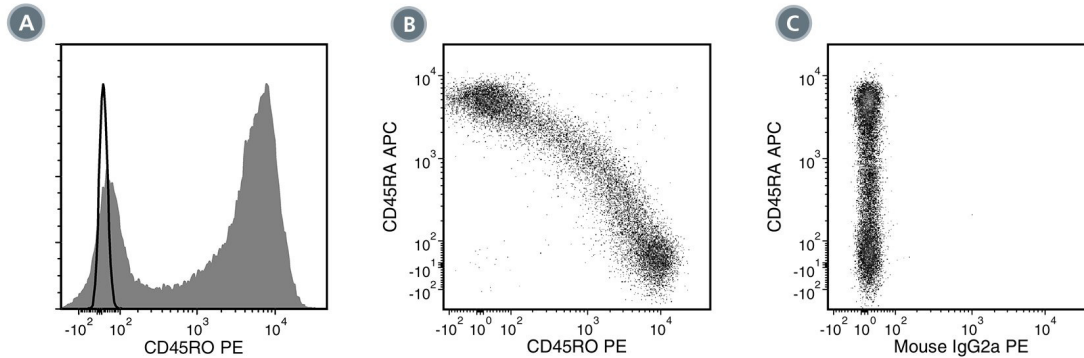
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Memory CD4+ T Cell Enrichment Kit (Catalog #19157) and EasySep™ Human Memory CD8+ T Cell Enrichment Kit (Catalog #19159).

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 and 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE 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, please contact <a href="mailto:techsupport@stemcell.com">techsupport@stemcell.com</a> .
Directions for Use:	For flow cytometry the suggested use of this antibody is $\leq 5 \mu$ L per $1 \times 10^6$ cells in 100 $\mu$ L or per 100 $\mu$ L 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 (PBMCs) labeled with Anti-Human CD45RO Antibody, Clone UCHL1, PE (filled histogram) or Mouse IgG2a, kappa Isotype Control Antibody, Clone MOPC-173, PE (Catalog #60071PE) (solid line histogram).

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

(C) Flow cytometry analysis of human PBMCs (gated on CD3<sup>+</sup> cells) labeled with Mouse IgG2a, kappa Isotype Control Antibody, Clone MOPC-173, PE and an anti-human CD45RA antibody, APC.

## Related Products

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## References

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