Antibodies

Anti-Human CD45RO Antibody, Clone UCHL1

Mouse monoclonal IgG2a antibody against human, chimpanzee, common marmoset CD45RO, unconjugated

Catalog #60097

100 µg 0.5 mg/mL

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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 employed 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, T200, Protein tyrosine phosphatase receptor type C, PTPRC
Gene ID:	5788
Species Reactivity:	Human, Chimpanzee, Common Marmoset; reportedly cross-reacts to varying extents with Cow, Dog, Mouse, Rat, some macaques (Pig-tailed, Rhesus)
Host Species:	Mouse (BALB/c)
Clonality:	Monoclonal
Clone:	UCHL1
Isotype:	IgG2a, kappa
Immunogen:	Human IL-2-dependent T-cell line CA1
Conjugate:	Unconjugated

Applications

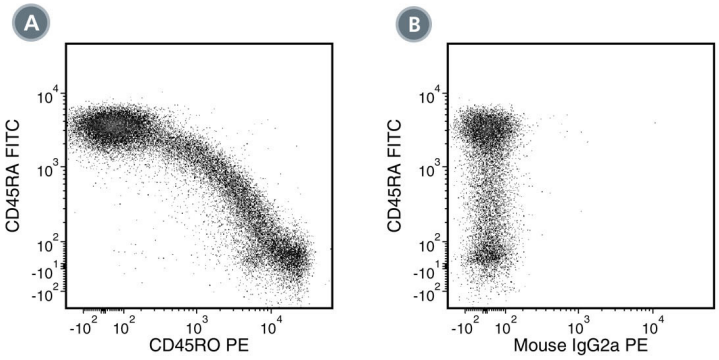
Verified:	CellSep, FC
Reported:	FA, FC, ICC, IF, IHC, Immunoelectron Microscopy, IP, WB
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Memory CD4+ T Cell Enrichment Kit (Catalog #19157) and EasySep™ Human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

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography.
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 ≤ 2 µg per 1 x 10e6 cells in 100 µL volume. 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 lymphocytes) labeled with Anti-Human CD45RO Antibody, Clone UCHL1, followed by a rat anti-mouse IgG2a antibody, PE and an anti-human CD45RA antibody, FITC.
(B) Flow cytometry analysis of human PBMCs (gated on lymphocytes) and labeled with a mouse IgG2a, kappa isotype control antibody, followed by rat anti-mouse IgG2a antibody, PE 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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