## 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:
PerCP-Cy5.5

### 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

### Formulation:
Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide

### Purification:
The antibody was purified by affinity chromatography and conjugated with PerCP-Cy5.5 under optimal conditions. The solution is free of unconjugated PerCP-Cy5.5.

### 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 techsupport@stemcell.com.

### Directions for Use:
For flow cytometry the suggested use of this antibody is ≤ 5 μL (0.25 μg) per 1 x 10^6 cells in 100 μL volume. It is recommended that the antibody be titrated for optimal performance for each application.
Antibodies

Anti-Human CD45RO Antibody, Clone UCHL1, PerCP-Cy5.5

Data

(A) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs; gated on CD3+ cells) labeled with Anti-Human CD45RO Antibody, Clone UCHL1, PerCP-Cy5.5 and an anti-human CD45RA antibody, FITC.

(B) Flow cytometry analysis of human PBMCs (gated on CD3+ cells) labeled with a mouse IgG2a, kappa isotype control antibody, PerCP-Cy5.5 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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