Antibody Reacts with the ~20 kDa CD3ε subunit of the human T cell receptor (TCR)/CD3 complex, which is expressed on the surface of ~95% of mature T cells and NK-T cells, and variably on thymocytes. A majority of T cell neoplasms also express CD3. The CD3 complex, which is assembled from combinations of CD3γ, δ, ε, η and ζ subunits, associates non-covalently with the TCR and is involved in transducing antigen recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR. Activation of T cells by the TCR involves the cytoplasmic tails of the CD3 subunits, which are structurally related type 1 transmembrane proteins and members of the immunoglobulin super family. Mutations in the CD3 subunits have been associated with various immunodeficiency disorders including severe combined immunodeficiency disorder (SCID).

**Target Antigen Name:** CD3  
**Alternative Names:** T3, CD3epsilon, CD3e  
**Gene ID:** 915  
**Species Reactivity:** Human, Chimpanzee  
**Host Species:** Mouse (BALB/c)  
**Clonality:** Monoclonal  
**Clone:** UCHT1  
**Isotype:** IgG1, kappa  
**Immunogen:** Human infant thymocytes followed by Sézary T cells  
**Conjugate:** Unconjugated

**Applications**  
**Verified:** CellSep, FC  
**Reported:** CyTOF®, FA, FC, ICC, IF, IHC, IP, WB  
**Special Applications:** This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human T Cell Enrichment Kit (Catalog #19051) and EasySep™ HLA T Cell Enrichment Kit (Catalog #19051HLA).

**Properties**  
**Size:** 100 μg  
**Concentration:** 0.5 mg/mL  
**Formulation:** Phosphate-buffered saline  
**Purification:** The antibody was purified by affinity chromatography.  
**Stability and Storage:** Product stable at 2 - 8°C when stored undiluted. Do not freeze. Addition of 0.1% sodium azide (final) is recommended once the vial has been opened. For product expiry date, please request a lot-specific Certificate of Analysis from techsupport@stemcell.com.  
**Directions for Use:** The suggested use of this antibody is: FC and blocking, <1 μg per 1 x 10e6 cells in 100 μL volume 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 (PBMCs) labeled with Anti-Human CD3 Antibody, Clone UCHT1, followed by goat anti-mouse IgG, FITC (filled histogram). Labeling with a mouse IgG1, kappa isotype control antibody followed by goat anti-mouse IgG, FITC is shown (solid line histogram).

(B) Flow cytometry analysis of PBMCs prior to being processed with EasySep™ Human CD3 Positive Selection Kit (Catalog #18051), which uses Anti-Human CD3 Antibody, Clone UCHT1, to select CD3+ cells. The cells were labeled with Anti-Human CD4 Antibody, Clone OKT4, Alexa Fluor® 488 (Catalog #60016AD) and Anti-Human CD8 Antibody, Clone RPA-T8, PE (Catalog #60022PE).

(C) Flow cytometry analysis of PBMCs processed with EasySep™ Human CD3 Positive Selection Kit and labeled with Anti-Human CD4 Antibody, Clone OKT4, Alexa Fluor® 488 (Catalog #60016AD) and Anti-Human CD8 Antibody, Clone RPA-T8 (Catalog #60022PE).

**Related Products**

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**References**