

## Anti-Human CD3 Antibody, Clone UCHT1, PE



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## Antibodies

Mouse monoclonal IgG1 antibody  
against human, chimpanzee CD3,  
PE-conjugated

Catalog #100-0449	500 Tests	5 $\mu$ L (0.06 $\mu$ g)/test (12 $\mu$ g/mL)
#60011PE	100 Tests	5 $\mu$ L (0.06 $\mu$ g)/test (12 $\mu$ g/mL)
#60011PE.1	25 Tests	5 $\mu$ L (0.06 $\mu$ g)/test (12 $\mu$ g/mL)

## Product Description

The UCHT1 antibody reacts with the ~20 kDa CD3 $\epsilon$  subunit of the human T cell receptor (TCR)/CD3 complex, which is expressed on the surface of ~95% of mature T cells and NKT cells, and variably on thymocytes. A majority of T cell neoplasms also express CD3. The CD3 complex, which is assembled from combinations of CD3 $\gamma$ ,  $\delta$ ,  $\epsilon$ ,  $\eta$ , and  $\zeta$  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 superfamily. Mutations in the CD3 subunits have been associated with various immunodeficiency disorders including severe combined immunodeficiency (SCID).

Target Antigen Name:	CD3
Alternative Names:	CD3e, CD3epsilon, T3
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:	PE (Phycoerythrin)

## Applications

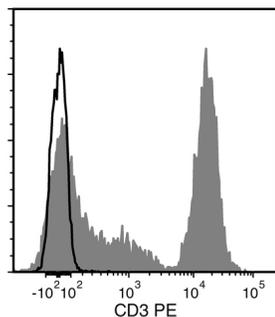
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Direct Human T Cell Isolation Kit (Catalog #19661), EasySep™ Human CD3 Positive Selection Kit II (Catalog #17851; partial blocking may be observed), EasySep™ HLA Whole Blood T Cell Enrichment Kit (Catalog #19951HLA), and EasySep Human CD2 Positive Selection Kit II (Catalog #17883).

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 saline, pH 7.2, containing 0.09% sodium azide, 0.1% gelatin, 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.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this antibody is $\leq 0.06 \mu$ g per $1 \times 10^6$ cells in 100 $\mu$ L. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD3 Antibody, Clone UCHT1, PE (filled histogram) or a mouse IgG1, kappa PE isotype control antibody (solid line histogram).

## 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](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

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