Antibodies

Anti-Human CD3 Antibody, Clone UCHT1, Biotin

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

Catalog #60011BT	100 ug	0.5 mg/mL
#60011BT.1	25 ug	0.5 mg/mL

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Product Description

The UCHT1 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:	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:	Biotin

Applications

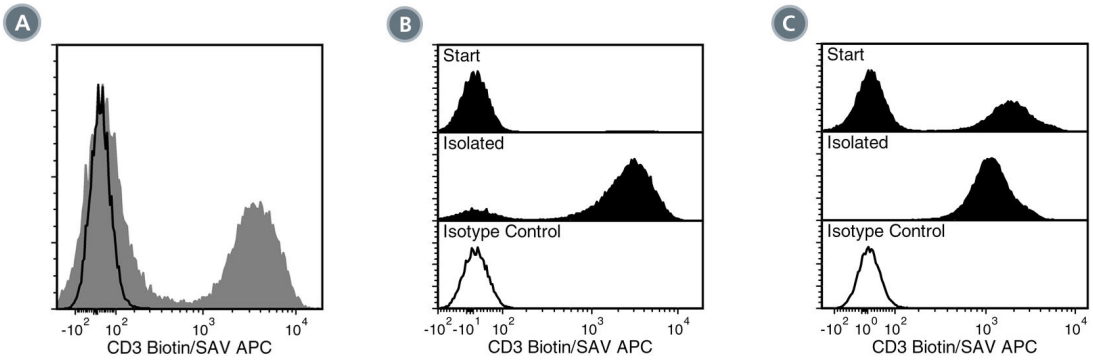
Verified:	FC
Reported:	FA, FC, IHC, IP
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ HLA Whole Blood CD2 Positive Selection Kit (Catalog #18687HLA), EasySep™ HLA Whole Blood CD3 Positive Selection Kit (Catalog #18081HLA; partial blocking may be observed) and EasySep™ Human Whole Blood CD2 Positive Selection Kit (Catalog #18687).

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 and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
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 ≤ 0.5 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) labeled with Anti-Human CD3 Antibody, Clone UCHT1, Biotin followed by streptavidin (SAV) APC (filled histogram) or a mouse IgG1, kappa biotin isotype control antibody followed by SAV APC (black line histogram).
(B) Flow cytometry analysis of human buffy coat nucleated cells processed with the EasySep™ HLA Whole Blood CD2 Positive Selection Kit and labeled with Anti-Human CD3 Antibody, Clone UCHT1, Biotin followed by streptavidin (SAV) APC. Histograms show labeling of buffy coat nucleated cells (Start) and isolated cells (Isolated). Labeling of start cells with a mouse IgG1, kappa biotin isotype control antibodyfollowed by SAV APC is shown (open histogram).
(C) Flow cytometry analysis of human buffy coat nucleated cells processed with the EasySep™ HLA Whole Blood CD3 Positive Selection Kit and labeled with Anti-Human CD3 Antibody, Clone UCHT1, Biotin followed by streptavidin (SAV) APC. Histograms show labeling of buffy coat nucleated cells (Start) and isolated cells (Isolated). Labeling of start cells with a mouse IgG1, kappa biotin isotype control antibodyfollowed by SAV APC is shown (open histogram).

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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