

# Anti-Human CD3 Antibody, Clone SK7, PE

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

Catalog #100-1592

100 Tests

5 µL/test

## Product Description

This monoclonal antibody reacts with the ~20 kDa cluster of differentiation 3 epsilon (CD3ε) subunit of human T cell receptor (TCR)/CD3 complex, which is expressed on the surface of ~95% of mature T cells and natural killer T cells, and variably on thymocytes. A majority of T cell neoplasms also express CD3. The CD3 complex consists of subunits γ, δ, ε, η, and ζ and binds noncovalently with the TCR. It is involved in transducing antigen recognition signals into the cytoplasm of T cells and in regulating expression of the TCR on cell surfaces. Activation of T cells by the TCR involves the cytoplasmic tails of the CD3 subunits, which are structurally related to 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).

<b>Target Antigen:</b>	CD3
<b>Alternative Names:</b>	CD3e, CD3epsilon, Leu4, T3
<b>Gene ID:</b>	916
<b>Species Reactivity:</b>	Human, Chimpanzee
<b>Host Species:</b>	Mouse
<b>Clonality:</b>	Monoclonal
<b>Clone:</b>	SK7
<b>Isotype:</b>	IgG1, kappa
<b>Immunogen:</b>	Human thymocytes
<b>Conjugate:</b>	PE (Phycoerythrin)

## Applications

<b>Verified Applications:</b>	FC
<b>Reported Applications:</b>	FC, FCXM
<b>Special Applications:</b>	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ Human Naïve Pan T Cell Isolation Kit (Catalog #17961).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; FCXM: Flow cytometric crossmatch assay; FISH: Fluorescence in situ hybridization; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-F: Immunohistochemistry (frozen-tissue); IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; NMR: Nuclear magnetic resonance spectroscopy; RIA: Radioimmunoassay; WB: Western blotting

## Properties

<b>Product Formulation:</b>	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin
<b>Purification:</b>	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE.
<b>Stability and Storage:</b>	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.
<b>Directions for Use:</b>	For flow cytometry, the suggested use of this antibody is $\leq 1 \mu\text{g}$ per $1 \times 10^6$ cells in 100 $\mu\text{L}$ . It is recommended that the antibody be titrated for optimal performance for each application.

## 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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