

## Anti-Human CD3 Antibody, Clone OKT3, FITC



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## Antibodies

Mouse monoclonal IgG2a antibody  
against human CD3, FITC-conjugated

Catalog #100-0285  
Catalog #100-0286

25 tests 5 µL/test  
100 tests 5 µL/test

## Product Description

The OKT3 antibody reacts with an extracellular conformational epitope on 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. CD3 is a dimer assembled from combinations of CD3 $\gamma$ ,  $\delta$ ,  $\epsilon$ ,  $\eta$ , and  $\zeta$  subunits, which are structurally related type 1 transmembrane proteins and members of the immunoglobulin superfamily. CD3 associates non-covalently with the TCR and is involved in transducing antigen recognition signals into the cytoplasm of T cells and in regulating T cell activation and the expression of the TCR on the cell surface. Mutations in CD3 have been associated with disorders of the immune system, including severe combined immunodeficiency (SCID). The OKT3 antibody recognizes an epitope that is expressed when the CD3 $\epsilon$  subunit associates with either CD3 $\gamma$  or CD3 $\delta$ , and binding of the antibody can induce T cell activation. Because of its immunosuppressive properties in vivo, the OKT3 antibody has proven useful in treating allograft rejection. Clone OKT3 is widely used for phenotyping human T cells, and it has been observed to block the binding of anti-CD3 antibody clones SK7 and UCHT1.

Target Antigen Name:	CD3
Alternative Names:	CD3 epsilon, CD3 $\epsilon$ , Leu-4, T3
Gene ID:	916
Species Reactivity:	Human
Host Species:	Mouse (CAF1)
Clonality:	Monoclonal
Clone:	OKT3
Isotype:	IgG2a, kappa
Immunogen:	Sheep erythrocyte rosette-purified human T cells
Conjugate:	FITC (Fluorescein isothiocyanate)

## Applications

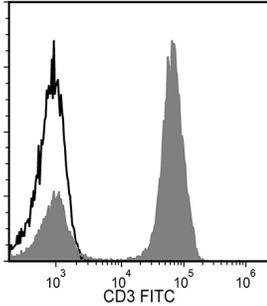
Verified:	FC
Reported:	FC

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 FITC under optimal conditions. The solution is free of unconjugated FITC.
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 <a href="mailto:techsupport@stemcell.com">techsupport@stemcell.com</a> .
Directions for Use:	For flow cytometry, the suggested use of this reagent is $\leq 5 \mu\text{L}$ 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.

## Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD3 Antibody, Clone OKT3, FITC (filled histogram) or a mouse IgG2a, kappa FITC isotype control antibody (solid line histogram). Viable lymphocytes were gated for analysis.

## 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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