Anti-Human CD4 Antibody, Clone OKT4, PE

Antibodies

Mouse monoclonal IgG2b antibody against human, rhesus, cynomolgus CD4, PE-conjugated

Catalog	#60016PE	100 tests	5 µL/test
	#60016PE.1	25 tests	5 µL/test

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Product Description

The OKT4 antibody reacts with CD4, an ~59 kDa single-chain type 1 transmembrane glycoprotein and member of the immunoglobin (Ig) superfamily; CD4 contains four extracellular Ig-like domains (D1 – D4). The epitope for OKT4 has been localized to the D3 domain of the protein, which has a structure resembling an Ig variable domain. CD4 is expressed at relatively high levels by most thymocytes and a subpopulation of T cells (T-helper cells), and at lower levels by peripheral blood monocytes and macrophages. CD4 binds to a non-polymorphic region of MHC II and acts as a co-receptor to the T cell receptor (TCR) in MHC II-restricted antigen recognition by enhancing the affinity of the association between the TCR and MHC II-antigen complex. CD4 also functions to amplify signals from the TCR to the cytoplasm through the interaction of its intracellular domain with cytoplasmic tyrosine kinases such as Lck. Moreover, CD4 is a receptor for the human immunodeficiency virus (HIV). Binding of the OKT4 antibody to CD4 does not block HIV binding.

Target Antigen Name:	CD4
Alternative Names:	T4
Gene ID:	920
Species Reactivity:	Human, Rhesus, Cynomolgus, Chimpanzee, Sooty Mangabey
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	OKT4
Isotype:	IgG2b, kappa
Immunogen:	Human peripheral blood T lymphocytes
Conjugate:	PE

Applications

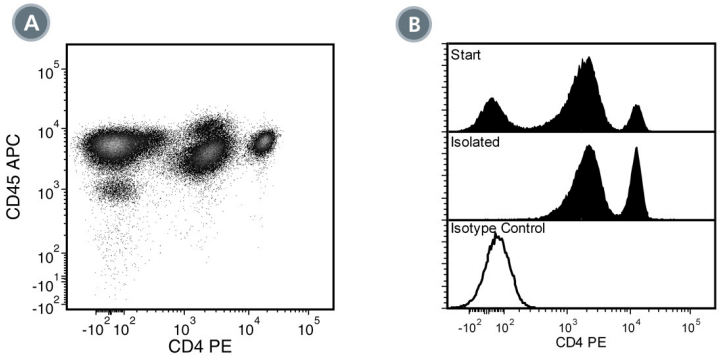
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human CD4+ T Cell Enrichment Kit (Catalog #19052), EasySep™ Human CD3 Positive Selection Kit (Catalog #18051) and EasySep™ Human CD4 Positive Selection Kit (Catalog #18052; partial blocking may be observed).

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 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 and unconjugated antibody.
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 techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is 5 µL 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 CD4 Antibody, Clone OKT4, PE and Anti-Human CD45 Antibody, Clone HI30, APC (Catalog #60018AZ).
(B) Flow cytometry analysis of human PBMCs isolated with the EasySep™ Human CD4 Positive Selection Kit and labeled with Anti-Human CD4 Antibody, Clone OKT4, PE. Histograms show labeling of the total PBMCs (Start) and isolated cells (Isolated). Labeling with a mouse IgG2b, kappa PE isotype control antibody is shown in the bottom panel (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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