

PE anti-human CD4 Antibody

Catalog# / Size	317409 / 25 tests 317410 / 100 tests
Clone	OKT4
Regulatory Status	RUO
Workshop	HCDM listed
Other Names	T4
Isotype	Mouse IgG2b, κ
Description	CD4, also known as T4, is a 55 kD single-chain type I transmembrane glycoprotein expressed on most thymocytes, a subset of T cells, and monocytes/macrophages. CD4, a member of the Ig superfamily, recognizes antigens associated with MHC class II molecules and participates in cell-cell interactions, thymic differentiation, and signal transduction. CD4 acts as a primary receptor for HIV, binding to HIV gp120. CD4 has also been shown to interact with IL-16.

Product Details

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	Chimpanzee
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human peripheral T cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	The OKT4 antibody binds to the D3 domain of CD4 and does not block HIV binding. Additional reported applications (for the relevant formats) include: immunohistochemistry of frozen sections and blocking of T cell activation. This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 317453 and 317454). In a small subset of individuals, the OKT4 clone does not bind to CD4 due to polymorphisms in CD4. ⁹
Application References	1. Knapp W, <i>et al.</i> 1989. Leucocyte Typing IV. Oxford University Press. New York. 2. Reinherz EL, <i>et al.</i> 1979. <i>Proc. Natl. Acad. Sci.</i> 76:4061. 3. Kmiecik M, <i>et al.</i> 2009. <i>J. Transl. Med.</i> 7:89. (FC) PubMed 4. Cicin-Sain L, <i>et al.</i> 2010. <i>J. Immunol.</i> 184:6739. PubMed
(PubMed link indicates BioLegend citation)	

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Product Citations

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RRID

AB_571954 (BioLegend Cat. No. 317409)
 AB_571955 (BioLegend Cat. No. 317410)

Antigen Details

Structure	Ig superfamily, type I transmembrane glycoprotein, 55 kD
Distribution	T cell subset, majority of thymocytes, monocytes/macrophages
Function	MHC class II co-receptor, lymphocyte adhesion, thymic differentiation, HIV receptor
Ligand/Receptor	MHC class II molecules, HIV gp120, IL-16
Cell Type	Macrophages, Monocytes, T cells, Thymocytes, Tregs
Biology Area	Immunology
Molecular Family	CD Molecules
Antigen References	1. Center D, <i>et al.</i> 1996. <i>Immunol. Today</i> 17:476. 2. Gaubin M, <i>et al.</i> 1996. <i>Eur. J. Clin. Chem. Clin. Biochem.</i> 34:723.
Gene ID	920

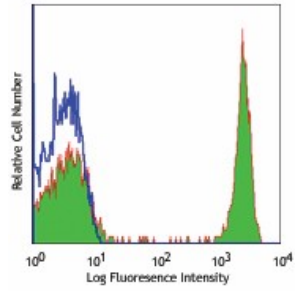
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

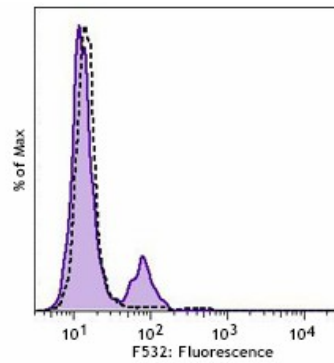
Other Formats

Brilliant Violet 650™ anti-human CD4, Purified anti-human CD4, Biotin anti-human CD4, FITC anti-human CD4, PE anti-human CD4, PE/Cyanine5 anti-human CD4, PE/Cyanine7 anti-human CD4, APC anti-human CD4, APC/Cyanine7 anti-human CD4, Alexa Fluor® 488 anti-human CD4, Alexa Fluor® 647 anti-human CD4, Alexa Fluor® 700 anti-human CD4, Pacific Blue™ anti-human CD4, PerCP/Cyanine5.5 anti-human CD4, PerCP anti-human CD4, Brilliant Violet 421™ anti-human CD4, Brilliant Violet 605™ anti-human CD4, Brilliant Violet 711™ anti-human CD4, Brilliant Violet 785™ anti-human CD4, Brilliant Violet 510™ anti-human CD4, Brilliant Violet 570™ anti-human CD4, PE/Dazzle™ 594 anti-human CD4, TotalSeq™-A0922 anti-human CD4, Ultra-LEAF™ Purified anti-human CD4

Product Data



Human peripheral blood lymphocytes stained with OKT4 PE



Human peripheral blood was stained with CD4 (clone OKT4) PE (solid line) or mouse IgG2b, κ PE isotype control (dashed line).

Data was acquired on the Moxi Flow, exported, and processed using FlowJo software.

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587