

PerCP/Cyanine5.5 anti-human CD4 Antibody

Catalog# / Size	317427 / 25 tests 317428 / 100 tests
Clone	OKT4
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

Reactivity	Human, Cross-Reactivity: Chimpanzee, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human peripheral T cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography, and conjugated with PerCP/Cyanine5.5 under optimal conditions.
Concentration	Lot-specific (please contact technical support for concentration and total µg amount, or use our Lookup tool if you have a lot number.)
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 - <i>Quality tested</i>
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. * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
Excitation Laser	Blue Laser (488 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.
Additional Product Notes	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact Technical Service if you have any questions.
Application References	<ol style="list-style-type: none"> Knapp W, et al. 1989. Leucocyte Typing IV. Oxford University Press. New York. Reinherz EL, et al. 1979. Proc. Natl. Acad. Sci. 76:4061. Kmieciak M, et al. 2009. J. Transl. Med. 7:89. (FC) PubMed Cicin-Sain L, et al. 2010. J. Immunol. 184:6739. PubMed Rosenzweig M, et al. 2001. J. Med. Primatol. 30:36. Linder J, et al. 1987. Am. J. Pathol. 127:1. Boche D, et al. 1999. J. Neurovirol. 5:232. (IHC) Reinherz EL, et al. 1979. Proc. Natl. Acad. Sci. USA. 76:4061. (Immunogen)
(PubMed link indicates BioLegend citation)	

Product Citations

1. Shi Y, et al. 2014. Proc Natl Acad Sci U S A. 111:3092.. PubMed
2. Ferraro A, et al. 2014. Proc Natl Acad Sci U S A. 111:1111. PubMed
3. Kongsbak M, et al. 2014. PLoS One. 9:96695. PubMed
4. Jin J, et al. 2014. PLoS One. 9:104753. PubMed
5. Meira M, et al. 2014. Mult Scler. 20:1363. PubMed
6. Florek N, et al. 2014. J Virol. 88:13418. PubMed
7. Crompton J, et al. 2015. Cancer Res. 75:296. PubMed
8. Ma G, et al. 2015. Proc Natl Acad Sci U S A. 112:2216. PubMed
9. Ishigaki K, et al. 2015. Sci Rep. 5: 12937. PubMed
10. Bego M, et al. 2015. J Vis Exp. 103: 51207. PubMed
11. Heery C, et al. 2015. Cancer Immunol Res. 3: 1248 - 1256. PubMed
12. Grenga I, et al. 2016. Clin Transl Immunology. 0.265972222. PubMed

RRID

AB_1186124 (BioLegend Cat. No. 317427)
AB_1186122 (BioLegend Cat. No. 317428)

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, et al. 1996. Immunol. Today 17:476. 2. Gaubin M, et al. 1996. Eur. J. Clin. Chem. Clin. Biochem. 34:723.
Gene ID	920

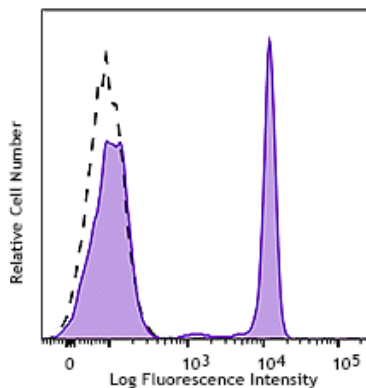
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats

Brilliant Violet 650™ anti-human CD4, Purified anti-human CD4, LEAF™ 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 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 were stained with CD4 (clone OKT4) PerCP/Cyanine5.5 (filled histogram) or Mouse IgG2b, κ PerCP/Cyanine5.5 isotype control (open histogram).

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

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