

PerCP/Cyanine5.5 anti-human CD4 Antibody

Catalog# / Size	300529 / 25 tests 300530 / 100 tests
Clone	RPA-T4
Regulatory Status	RUO
Workshop	IV T114
Other Names	T4
Isotype	Mouse IgG1, 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
Reported Reactivity	Chimpanzee
Antibody Type	Monoclonal
Host Species	Mouse
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 PerCP/Cyanine5.5 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 CD4 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. * 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 RPA-T4 antibody binds to the D1 domain of CD4 (CDR1 and CDR3 epitopes) and can block HIV gp120 binding and inhibit syncytia formation. Additional reported applications (for the relevant formats) include: immunohistochemistry of acetone-fixed frozen sections ^{3,4,5} , blocking of T cell activation ^{1,2} , and spatial biology (IBEX) ^{10,11} . 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. 300569 - 300574).
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	1. Knapp W, <i>et al.</i> 1989. Leucocyte Typing IV. Oxford University Press. New York. (Activ) 2. Moir S, <i>et al.</i> 1999. <i>J. Virol.</i> 73:7972. (Activ) 3. Deng MC, <i>et al.</i> 1995. <i>Circulation</i> 91:1647. (IHC)
(PubMed link indicates BioLegend citation)	

4. Friedman T, *et al.* 1999. *J. Immunol.* 162:5256. (IHC)
5. Mack CL, *et al.* 2004. *Pediatr. Res.* 56:79. (IHC)
6. Lan RY, *et al.* 2006. *Hepatology* 43:729.
7. Zenaro E, *et al.* 2009. *J. Leukoc. Biol.* 86:1393. (FC) [PubMed](#)
8. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
9. Stoeckius M, *et al.* 2017. *Nat. Methods.* 14:865. (PG)
10. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
11. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Tran TM, *et al.* 2020. *Immunity.* 51(4):750-765. [PubMed](#)
2. Kim MY, *et al.* 2021. *JCI Insight.* 6:. [PubMed](#)
3. Chan JA, *et al.* 2022. *Nat Commun.* 13:4159. [PubMed](#)
4. Lu T, *et al.* 2016. *PLoS One.* 11: 0148044. [PubMed](#)
5. Woldemeskel BA, *et al.* 2020. *J Clin Invest.* 130:6631. [PubMed](#)
6. Marques RM, *et al.* 2021. *Cell Death Differ.* 28:3140. [PubMed](#)
7. Walsh RE, *et al.* 2020. *MAbs.* 12:1764829. [PubMed](#)
8. Du L, *et al.* 2021. *Front Mol Biosci.* 8:675179. [PubMed](#)
9. Woldemeskel BA, *et al.* 2021. *J Clin Invest.* 131:. [PubMed](#)
10. Washburn ML, *et al.* 2019. *J Immunol.* 203:1897. [PubMed](#)
11. Evans RDR, *et al.* 2020. *Nat Commun.* 3.491666667. [PubMed](#)
12. Woldemeskel BA, *et al.* 2022. *J Clin Invest.* 132:. [PubMed](#)
13. Harb H, *et al.* 2021. *Immunity.* 54(6):1186-1199.e7. [PubMed](#)
14. Schupp J, *et al.* 2021. *Int J Mol Sci.* 22:00. [PubMed](#)
15. Zakhour R, *et al.* 2016. *Clin Infect Dis.* 62: 1029-1035. [PubMed](#)
16. Robinson CA, *et al.* 2022. *Viruses.* 14:. [PubMed](#)
17. Elias G, *et al.* 2022. *Elife.* 11:. [PubMed](#)
18. Sumitomo S, *et al.* 2013. *J Immunol.* 94:393. [PubMed](#)
19. Pollack RA, *et al.* 2017. *Cell Host Microbe.* 1.218055556. [PubMed](#)
20. Harb H, *et al.* 2020. *Nat Immunol.* 1359:21. [PubMed](#)
21. Bradley D, *et al.* 2022. *Nat Commun.* 13:5606. [PubMed](#)
22. Dykema AG, *et al.* 2021. *J Clin Invest.* 131:. [PubMed](#)
23. D'Antoni ML, *et al.* 2018. *J Acquir Immune Defic Syndr.* 79:108. [PubMed](#)
24. Srivastava S, *et al.* 2020. *Cancer Cell.* 39(2):193-208.e10. [PubMed](#)
25. Beyer M, *et al.* 2016. *Nat Immunol.* 17:593-603. [PubMed](#)
26. Wiche Salinas TR, *et al.* 2021. *iScience.* 24:103225. [PubMed](#)
27. Zhong W, *et al.* 2022. *Front Immunol.* 13:1001255. [PubMed](#)
28. Gamradt S, *et al.* 2021. *iScience.* 24:103312. [PubMed](#)

RRID

AB_893328 (BioLegend Cat. No. 300529)
 AB_893322 (BioLegend Cat. No. 300530)

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	Dendritic cells, 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

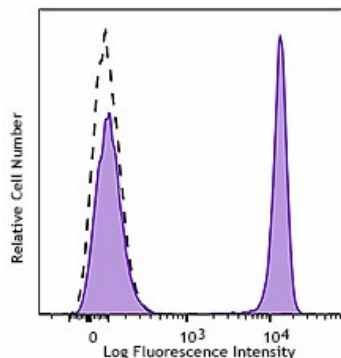
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC 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, Purified anti-human CD4, APC/Cyanine7 anti-human CD4, Alexa Fluor® 488 anti-human CD4, Alexa Fluor® 647 anti-human CD4, Pacific Blue™ anti-human CD4, Brilliant Violet 421™ anti-human CD4, Alexa Fluor® 700 anti-human CD4, PerCP anti-human CD4, PerCP/Cyanine5.5 anti-human CD4, Brilliant Violet 570™ anti-human CD4, Brilliant Violet 650™ anti-human CD4, Purified anti-human CD4 (Maxpar® Ready), Alexa Fluor® 594 anti-human CD4, Brilliant Violet 510™ anti-human CD4, PE/Dazzle™ 594 anti-human CD4, Brilliant Violet 785™ anti-human CD4, Brilliant Violet 605™ anti-human CD4, Brilliant Violet 711™ anti-human CD4, APC/Fire™ 750 anti-human CD4, CD4 Fluorophore Sampler Kit, CD4 Fluorophore Sampler Kit with Veri-Cells™ PBMC, TotalSeq™-A0072 anti-human CD4, TotalSeq™-B0072 anti-human CD4, TotalSeq™-C0072 anti-human CD4, Ultra-LEAF™ Purified anti-human CD4, TotalSeq™-D0072 anti-human CD4

Product Data



Human peripheral blood lymphocytes were stained with CD4 (clone RPA-T4) PerCP/Cyanine5.5 (filled histogram) or Mouse IgG1, ? PerCP/Cyanine5.5 isotype control (open histogram).

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*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.

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