

FITC anti-human CD4 Antibody

Catalog# / Size	317407 / 25 tests 317408 / 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 FITC 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.
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. ⁹

Application References

1. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York.
2. Reinherz EL, *et al.* 1979. *Proc. Natl. Acad. Sci.* 76:4061.
3. Kmiecik M, *et al.* 2009. *J. Transl. Med.* 7:89. (FC) [PubMed](#)
4. Cicin-Sain L, *et al.* 2010. *J. Immunol.* 184:6739. [PubMed](#)
5. Rosenzweig M, *et al.* 2001. *J. Med. Primatol.* 30:36.

6. Linder J, *et al.* 1987. *Am. J. Pathol.* 127:1.
7. Boche D, *et al.* 1999. *J. Neurovirol.* 5:232. (IHC)
8. Reinherz EL, *et al.* 1979. *Proc. Natl. Acad. Sci. USA.* 76:4061. (Immunogen)
9. Lederman S, *et al.* 1991. *Mol Immunol.* 28:1171-81.

Product Citations

1. Varkey R, *et al.* 2019. *PLoS One.* 14:e0211236. [PubMed](#)
2. Yang M, *et al.* 2019. *Cell Physiol Biochem.* 52:1178. [PubMed](#)
3. Sasaki E, *et al.* 2018. *J Immunotoxicol.* 15:53. [PubMed](#)
4. Riaz T, *et al.* 2016. *Mol Cell Proteomics.* 15: 1007 - 1016. [PubMed](#)
5. Trzupsek D, *et al.* 2022. *Wellcome Open Res.* 6:149. [PubMed](#)
6. Andonian BJ, *et al.* 2022. *Sci Rep.* 12:7450. [PubMed](#)
7. Kieffer T, *et al.* 2017. *J Reprod Immunol.* 10.1016/j.jri.2016.11.004. [PubMed](#)
8. Zhang Y, *et al.* 2020. *Oncol Lett.* 1.053472222. [PubMed](#)
9. Zhao Y, *et al.* 2021. *Front Immunol.* 12:665442. [PubMed](#)
10. Rodriguez-García A, *et al.* 2020. *Mol Ther.* 28:548. [PubMed](#)
11. Enghard P, *et al.* 2014. *Ann Rheum Dis.* 73:277. [PubMed](#)
12. Hixon JA, *et al.* 2020. *Leukemia.* 34:35. [PubMed](#)
13. Pan YG, *et al.* 2021. *Immunity.* 54(6):1245-1256.e5. [PubMed](#)
14. Zhou Y, *et al.* 2017. *Front Cell Infect Microbiol.* 7:457. [PubMed](#)
15. Gorczynski RM, *et al.* 2017. *Immunology.* 150:418. [PubMed](#)
16. Meng S, *et al.* 2018. *Mol Med Rep.* 18:4247. [PubMed](#)
17. Buchan SL *et al.* 2018. *Immunity.* 49(5):958-970. [PubMed](#)
18. Zhang T, *et al.* 2012. *J Immunol.* 189:2290. [PubMed](#)
19. Narsale A, Moya R, Robertson H 2016. *Data Brief.* 8: 1348-51. [PubMed](#)
20. Chen Y, *et al.* 2021. *Transl Lung Cancer Res.* 10:2193. [PubMed](#)
21. Zhang J, *et al.* 2022. *Nature.* 609:369. [PubMed](#)
22. Kashima Y, *et al.* 2022. *Life Sci Alliance.* 5:. [PubMed](#)
23. Cai J, *et al.* 2021. *eLife.* 10:00. [PubMed](#)
24. Liu J, *et al.* 2021. *Medicine (Baltimore).* 100:e24619. [PubMed](#)
25. Kilpelainen A, *et al.* 2022. *Front Immunol.* 13:815041. [PubMed](#)
26. Glassman CR, *et al.* 2021. *Cell.* 184(4):983-999.e24. [PubMed](#)
27. Del Alcazar D, *et al.* 2019. *Cell Rep.* 28:3047. [PubMed](#)
28. Du Q, *et al.* 2018. *J Immunol.* 201:533. [PubMed](#)
29. Yang B, *et al.* 2015. *Cell Immunol.* Available online 12 August 2015. [PubMed](#)
30. Gao X, *et al.* 2022. *iScience.* 25:104911. [PubMed](#)
31. Leclercq G, *et al.* 2022. *J Immunother Cancer.* 10: [PubMed](#)
32. Bending D, *et al.* 2015. *J Immunol.* 195: 5616 - 5624. [PubMed](#)
33. Verma K, *et al.* 2017. *PLoS One.* 10.1371/journal.pone.0183828. [PubMed](#)
34. Saraiva DP, *et al.* 2018. *Front Immunol.* 2.184027778. [PubMed](#)
35. Teni Nurlatifah HR, *et al.* 2021. *Med Arch.* 75:335. [PubMed](#)
36. Tong L, *et al.* 2021. *Front Microbiol.* 12:704449. [PubMed](#)
37. Comte D, *et al.* 2016. *Proc Natl Acad Sci U S A.* 113: 9321 - 9326. [PubMed](#)
38. Yang YK, *et al.* 2021. *Stem Cell Res Ther.* 12:156. [PubMed](#)
39. Barresi V, *et al.* 2020. *J Clin Med.* 9:00. [PubMed](#)
40. Hr TN, *et al.* 2021. *Allergol Immunopathol (Madr).* 49:193. [PubMed](#)
41. Rousso-Noori L, *et al.* 2021. *Nat Commun.* 12:3615. [PubMed](#)
42. Loo Yau H, *et al.* 2021. *STAR Protocols.* 2(2):100549. [PubMed](#)
43. Wang L, *et al.* 2018. *Oncol Lett.* 15:8635. [PubMed](#)
44. Zhu P, *et al.* 2022. *Cell Commun Signal.* 20:121. [PubMed](#)
45. Hebbandi Nanjundappa R, *et al.* 2017. *Cell.* 171:655. [PubMed](#)
46. Jiang J, *et al.* 2016. *Sci Rep.* 6: 32320. [PubMed](#)
47. Hui Z, *et al.* 2022. *Cell Death Dis.* 13:607. [PubMed](#)

RRID

AB_571950 (BioLegend Cat. No. 317407)
 AB_571951 (BioLegend Cat. No. 317408)

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	<ol style="list-style-type: none"> 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.

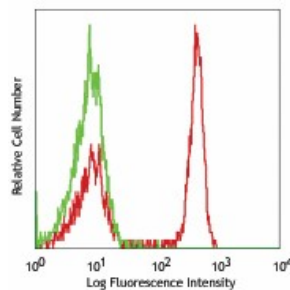
Related Protocols

[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 FITC

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