

## APC anti-mouse CD3 Antibody

<b>Catalog# / Size</b>	100235 / 25 µg 100236 / 100 µg
<b>Clone</b>	17A2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	T cell antigen receptor complex, T3
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	CD3, also known as T3, is a member of the Ig superfamily and primarily expressed on T cells, NK-T cells, and at different levels on thymocytes during T cell differentiation. CD3 is composed of CD3ε, δ, γ and ζ chains. It forms a TCR complex by associating with TCR α/β or γ/δ chains. CD3 plays a critical role in TCR signal transduction, T cell activation, and antigen recognition by binding the peptide/MHC antigen complex

### Product Details

---

<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	γδTCR-positive T-T hybridoma D1
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions.
<b>Concentration</b>	0.2 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	Additional reported application (for relevant formats) include: spatial biology (IBEX) <sup>1,2</sup> .
<b>Application References</b> (PubMed link indicates BioLegend citation)	<ol style="list-style-type: none"> <li>1. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci U S A.</i> 117:33455-65. (SB) <a href="#">PubMed</a></li> <li>2. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) <a href="#">PubMed</a></li> </ol>
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Koyama M, <i>et al.</i> 2015. <i>J Exp Med.</i> 212: 1303 - 1321. <a href="#">PubMed</a></li> <li>2. Morse M, <i>et al.</i> 2016. <i>Lupus.</i> 25: 81 - 87. <a href="#">PubMed</a></li> <li>3. Calabrese DR, <i>et al.</i> 2020. <i>J Clin Invest.</i> <a href="#">PubMed</a></li> <li>4. Hou X, <i>et al.</i> 2020. <i>Cell Reports.</i> 28(1):172-189.e7.. <a href="#">PubMed</a></li> <li>5. Liu J, <i>et al.</i> 2019. <i>Immunity.</i> 50:600. <a href="#">PubMed</a></li> <li>6. Rivas MA, <i>et al.</i> 2021. <i>Nat Immunol.</i> 22:240. <a href="#">PubMed</a></li> <li>7. Xiang G, <i>et al.</i> 2022. <i>Cell Death Dis.</i> 13:451. <a href="#">PubMed</a></li> <li>8. Pani F, <i>et al.</i> 2021. <i>Endocrinology.</i> 162:. <a href="#">PubMed</a></li> <li>9. Naito Y, <i>et al.</i> 2019. <i>American Journal of Physiology-Renal Physiology.</i> 318(1):F238-F247. <a href="#">PubMed</a></li> <li>10. Yang H, <i>et al.</i> 2019. <i>Mol Metab.</i> 23:24. <a href="#">PubMed</a></li> <li>11. Gabriely G, <i>et al.</i> 2021. <i>iScience.</i> 24:103347. <a href="#">PubMed</a></li> </ol>

12. Delvecchio FR, *et al.* 2021. Cell Mol Gastroenterol Hepatol. 12:1543. [PubMed](#)
13. Kim D, *et al.* 2021. Nanomicro Lett. 13:31. [PubMed](#)
14. Sano T, *et al.* 2021. Cell Reports. 36(8):109608. [PubMed](#)
15. Wilson RP, *et al.* 2019. PLoS Pathog. 15:e1007745. [PubMed](#)
16. Yu VWC *et al.* 2016. Cell. 167(5):1310-1322. [PubMed](#)
17. Huang X, *et al.* 2019. Cancer Immunol Res. 1.388888889. [PubMed](#)
18. Gupta SS, *et al.* 2019. Cell Rep. 29:1862. [PubMed](#)
19. Fu X, *et al.* 2020. J Immunol. 205:2066. [PubMed](#)
20. Song J, *et al.* 2021. J Am Heart Assoc. 10:e017329. [PubMed](#)
21. Baram T, *et al.* 2021. Cells. 10:. [PubMed](#)
22. Luo R, *et al.* 2021. Theranostics. 11:117. [PubMed](#)
23. Pessoa Rodrigues C, *et al.* 2021. Sci Adv. 7:. [PubMed](#)
24. Zhang S, *et al.* 2022. Cell Death Dis. 13:844. [PubMed](#)
25. Forte E, *et al.* 2020. J Cell Mol Med. . [PubMed](#)
26. Haque M, *et al.* 2021. STAR Protoc. 2:100264. [PubMed](#)
27. Gruber T, *et al.* 2020. JCI Insight. 5:00. [PubMed](#)
28. Yamamoto R *et al.* 2018. Cell stem cell. 22(4):600-607. [PubMed](#)
29. Kremenovic M, *et al.* 2022. J Immunother Cancer. 10:. [PubMed](#)
30. Peng Z, *et al.* 2021. STAR Protocols. 2(2):100595. [PubMed](#)
31. Wang X, *et al.* 2021. Front Cell Dev Biol. 632805:9. [PubMed](#)
32. Swidergall M, *et al.* 2019. Cell Rep. 28:423. [PubMed](#)
33. Tsuchiya N, *et al.* 2020. Cell Reports. 29(1):162-175.e9.. [PubMed](#)
34. Fujino T, *et al.* 2021. Nat Commun. 12:1826. [PubMed](#)
35. Shi S, *et al.* 2020. Clin Cancer Res. 26:5990. [PubMed](#)
36. Almutairi F, *et al.* 2021. Front Immunol. 12:772288. [PubMed](#)
37. Magod P, *et al.* 2021. Cell Reports. 36(5):109480. [PubMed](#)
38. Yoshimi A, *et al.* 2019. Nature. 574:273. [PubMed](#)
39. Thomas S, *et al.* 2019. J Immunother Cancer. 7:214. [PubMed](#)
40. Uchimura T *et al.* 2018. Immunity. 49(6):1049-1061. [PubMed](#)
41. Tang D, *et al.* 2020. Br J Haematol. 191:906. [PubMed](#)
42. van Elsas MJ, *et al.* 2022. Int J Mol Sci. 23:. [PubMed](#)
43. Francian A, *et al.* 2021. J Drug Target. 29:754. [PubMed](#)
44. Antunes KH, *et al.* 2022. Front Immunol. 13:867022. [PubMed](#)
45. Mastandrea I, *et al.* 2022. STAR Protoc. 3:101106. [PubMed](#)
46. Wu G, *et al.* 2020. Br J Pharmacol. 177:5063. [PubMed](#)
47. Zhang Z, *et al.* 2021. Oncoimmunology. 10:1912472. [PubMed](#)
48. Parada-Kusz M, *et al.* 2018. Dis Model Mech. 11:. [PubMed](#)
49. Zhang F, *et al.* 2019. Immunity. 50:738. [PubMed](#)
50. Liu H, *et al.* 2020. Cancer Cell. 37(3):324-339. [PubMed](#)
51. Li X, *et al.* 2020. Mol Ther. 28:2430. [PubMed](#)
52. Guo W, *et al.* 2022. J Immunother Cancer. 10:. [PubMed](#)
53. Ren HZ, *et al.* 2022. J Clin Transl Hepatol. 10:1138. [PubMed](#)
54. Utlej A, *et al.* 2020. Cell Rep. 31:107815. [PubMed](#)
55. Utz B, *et al.* 2020. Sci Rep. 10:18733. [PubMed](#)
56. Hiramoto T, *et al.* 2018. Mol Ther. 26:1255. [PubMed](#)
57. Yu VWC, *et al.* 2017. Cell. 168:944. [PubMed](#)
58. Wang GZ, *et al.* 2019. Nat Commun. 10:1125. [PubMed](#)
59. Chen X *et al.* 2017. Cell stem cell. 21(6):747-760. [PubMed](#)
60. Wang W, *et al.* 2022. Aging Cell. 21:e13630. [PubMed](#)
61. Xie Z, *et al.* 2020. Light Sci Appl. 0.486805556. [PubMed](#)
62. Court AC, *et al.* 2020. EMBO Rep. 21:e48052. [PubMed](#)
63. Venturutti L, *et al.* 2020. Cell. 182(2):297-316.e27. [PubMed](#)
64. Zhang W, *et al.* 2019. Oncol Lett. 17:815. [PubMed](#)
65. Schadt L, *et al.* 2020. Cell Reports. 29(5):1236-1248.e7.. [PubMed](#)
66. Hu Q, *et al.* 2018. Nat Biomed Eng. 0.660416667. [PubMed](#)
67. Suryawanshi RK, *et al.* 2021. Nat Commun. 12:6020. [PubMed](#)
68. Du Y, *et al.* 2022. Nat Commun. 13:231. [PubMed](#)
69. Chauveau A, *et al.* 2020. Immunity. 52:794. [PubMed](#)
70. Haikala HM, *et al.* 2019. Nat Commun. 10:620. [PubMed](#)
71. Zhao X, *et al.* 2022. Nat Protoc. 17:2240. [PubMed](#)
72. Zuo W, *et al.* 2022. Cell Death Discov. 8:257. [PubMed](#)
73. Reinfeld BI, *et al.* 2021. Nature. 593:282. [PubMed](#)
74. Kruta M, *et al.* 2021. Cell Stem Cell. .: [PubMed](#)
75. Liu Y, *et al.* 2017. Oncogene. 10.1038/onc.2017.209. [PubMed](#)
76. Hu J, *et al.* 2019. Mol Ther Nucleic Acids. 16:650. [PubMed](#)
77. Burr ML, *et al.* 2019. Cancer Cell. 36:385. [PubMed](#)
78. Liang J, *et al.* 2020. Sci Adv. 6:eabc3646. [PubMed](#)
79. Huang Z, *et al.* 2021. Nat Commun. 12:145. [PubMed](#)
80. Zhu Y, *et al.* 2021. EMBO J. 40:e105320. [PubMed](#)
81. Wang Y, *et al.* 2021. Front Microbiol. 12:701566. [PubMed](#)
82. Zheng D, *et al.* 2022. Acta Pharm Sin B. 12:2740. [PubMed](#)
83. Tomala J, *et al.* 2020. Methods Mol Biol. 2111:101. [PubMed](#)
84. Wen M, *et al.* 2022. JCI Insight. Online ahead of print. [PubMed](#)
85. Li H, *et al.* 2021. Adv Sci (Weinh). 2001596:8. [PubMed](#)
86. Tomay F, *et al.* 2019. J Transl Med. 17:237. [PubMed](#)
87. Xiong W, *et al.* 2022. Adv Sci (Weinh). 9:e2103029. [PubMed](#)
88. Xiao L, *et al.* 2021. Clin Cancer Res. 27:4338. [PubMed](#)
89. Huang L, *et al.* 2021. Breast Cancer Res Treat. Online ahead of print. [PubMed](#)
90. Han F, *et al.* 2020. Invest Ophthalmol Vis Sci. 61:24. [PubMed](#)
91. Wang X, *et al.* 2020. Nat Commun. 4.505555556. [PubMed](#)

92. Johnson DC, *et al.* 2020. *Cell Death Dis.* 0.894444444. [PubMed](#)
93. Evgin L, *et al.* 2020. *Nat Commun.* 2.671527778. [PubMed](#)
94. Wei Z, *et al.* 2021. *Nat Commun.* 0.805555556. [PubMed](#)
95. Xi-Zhi J Guo *et al.* 2018. *Immunity.* 49(3):531-544. [PubMed](#)
96. Subramanian K, *et al.* 2019. *Nat Microbiol.* 4:62. [PubMed](#)
97. Xu P, *et al.* 2020. *Cancer Immunol Res.* 8:1193. [PubMed](#)
98. Yu H, *et al.* 2021. *Front Oncol.* 11:736882. [PubMed](#)
99. Chen C, *et al.* 2021. *J Virol.* 95:e0082921. [PubMed](#)
100. Martinez-Turtos A, *et al.* 2022. *Oncoimmunology.* 11:2116844. [PubMed](#)
101. Zeng Q, *et al.* 2022. *iScience.* 25:105151. [PubMed](#)
102. Adnan-Awad S, *et al.* 2020. *Leukemia.* . [PubMed](#)
103. Liu Y, *et al.* 2020. *Oncol Lett.* 2369:20. [PubMed](#)
104. Chen R, *et al.* 2021. *Cell Reports.* 34(7):108751. [PubMed](#)
105. Cianciaruso C, *et al.* 2020. *Cell Reports.* 27(10):3062-3080.e11. [PubMed](#)
106. Zhang J, *et al.* 2018. *Nature.* 553:91. [PubMed](#)
107. Li Z, *et al.* 2022. *Nat Commun.* 13:6321. [PubMed](#)
108. Olivo Pimentel V, *et al.* 2021. *J Immunother Cancer.* 9:. [PubMed](#)
109. Li M, *et al.* 2021. *Cancers (Basel).* 13:. [PubMed](#)
110. Jiang L, *et al.* 2020. *Cell.* 183(5):1219-1233.e18. [PubMed](#)
111. Yu M, *et al.* 2021. *Molecular Cell.* 81(6):1216-1230.e9. [PubMed](#)
112. Liu P, *et al.* 2020. *Mol Cell.* 748:77. [PubMed](#)
113. Nechama M, *et al.* 2018. *Nat Commun.* 9:1603. [PubMed](#)
114. Liu YG, *et al.* 2019. *FASEB J.* 33:5018. [PubMed](#)
115. Siddique SM, *et al.* 2019. *Sci Rep.* 9:13977. [PubMed](#)
116. Lazarian G, *et al.* 2021. *Cancer Cell.* 39(3):380-393.e8. [PubMed](#)
117. Clemente-Casares X, *et al.* 2017. *Immunity.* 47:974. [PubMed](#)
118. Olson CA, *et al.* 2021. *Cell Host Microbe.* 29:1378. [PubMed](#)
119. Kim S, *et al.* 2020. *Autophagy.* :1. [PubMed](#)
120. Li K, *et al.* 2020. *Nat Commun.* 4.844444444. [PubMed](#)
121. Hering L, *et al.* 2020. *Front Immunol.* 1.747222222. [PubMed](#)
122. Yoshida S, *et al.* 2022. *PLoS One.* 17:e0264317. [PubMed](#)
123. Zhong C, *et al.* 2021. *J Virol.* 95:e0092521. [PubMed](#)
124. Kelley WJ, *et al.* 2022. *JCI Insight.* :. [PubMed](#)
125. Wang Y, *et al.* 2021. *Cell Reports.* 36(6):109516. [PubMed](#)
126. Hidalgo San Jose L, *et al.* 2020. *Cell Rep.* 30:69. [PubMed](#)
127. Lau P, *et al.* 2022. *Cell Mol Immunol.* :. [PubMed](#)
128. Arora S, *et al.* 2021. *Med (N Y).* 2:938. [PubMed](#)
129. Li H, *et al.* 2022. *iScience.* 25:104481. [PubMed](#)
130. Gardenier J, *et al.* 2017. *Nat Commun.* 8:14345. [PubMed](#)
131. Heyde A, *et al.* 2021. *Cell.* 184(5):1348-1361.e22. [PubMed](#)
132. Zeng A, *et al.* 2020. *Oncol Rep.* . [PubMed](#)
133. Agelidis A, *et al.* 2017. *Cell Rep.* 10.1016/j.celrep.2017.06.041. [PubMed](#)
134. Sartorius R, *et al.* 2018. *Front Immunol.* 1.413888889. [PubMed](#)
135. Hong Y, *et al.* 2019. *J Extracell Vesicles.* 8:1670893. [PubMed](#)
136. Lightman SM, *et al.* 2020. *Cell Reports.* 1.086805556. [PubMed](#)
137. Das A, *et al.* 2020. *J Bone Miner Res.* 36:199. [PubMed](#)
138. Kujur W, *et al.* 2020. *PLoS Pathog.* 16:e1009132. [PubMed](#)
139. Wang X, *et al.* 2021. *Sci Transl Med.* 13:. [PubMed](#)
140. Rappe JCF, *et al.* 2021. *J Exp Med.* 218:. [PubMed](#)
141. Lee A, *et al.* 2022. *Nat Commun.* 13:549. [PubMed](#)
142. Tripathi D, *et al.* 2016. *Nat Commun.* 7:13896. [PubMed](#)
143. Pessoa Rodrigues C, *et al.* 2020. *Sci Adv.* 6:eaaz4815. [PubMed](#)
144. Song X, *et al.* 2022. *Transl Oncol.* 15:101306. [PubMed](#)
145. Akhtar MN, *et al.* 2020. *PLoS Pathog.* 16:e1009136. [PubMed](#)
146. Zhang J, *et al.* 2021. *Stem Cell Res Ther.* 12:579. [PubMed](#)
147. Chang MH, *et al.* 2021. *Cell Rep.* 37:109902. [PubMed](#)
148. Xie Z, *et al.* 2020. *Light Sci Appl.* 9:161. [PubMed](#)
149. Lake CM, *et al.* 2021. *Cell Death Dis.* 12:400. [PubMed](#)

**RRID**

AB\_2561455 (BioLegend Cat. No. 100235)  
 AB\_2561456 (BioLegend Cat. No. 100236)

**Antigen Details**

---

<b>Structure</b>	Ig superfamily, CD3/TCR, 20 kD
<b>Distribution</b>	Thymocytes (differentiation dependent), mature T cells, NK-T cells
<b>Function</b>	Antigen recognition, TCR signal transduction, T cell activation
<b>Ligand/Receptor</b>	Peptide antigen/MHC-complex
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.</li> <li>2. Davis MM. 1990. <i>Annu. Rev. Biochem.</i> 59:475.</li> <li>3. Weiss A, <i>et al.</i> 1994. <i>Cell</i> 76:263.</li> </ol>

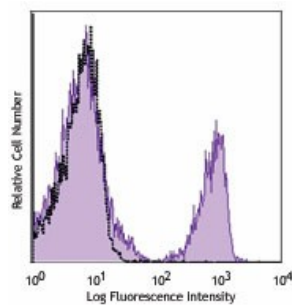
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

FITC anti-mouse CD3, PE anti-mouse CD3, Purified anti-mouse CD3, Alexa Fluor® 647 anti-mouse CD3, Alexa Fluor® 488 anti-mouse CD3, Pacific Blue™ anti-mouse CD3, Alexa Fluor® 700 anti-mouse CD3, PerCP/Cyanine5.5 anti-mouse CD3, PE/Cyanine7 anti-mouse CD3, APC/Cyanine7 anti-mouse CD3, Brilliant Violet 421™ anti-mouse CD3, Brilliant Violet 570™ anti-mouse CD3, Brilliant Violet 650™ anti-mouse CD3, Brilliant Violet 785™ anti-mouse CD3, Brilliant Violet 510™ anti-mouse CD3, APC anti-mouse CD3, Ultra-LEAF™ Purified anti-mouse CD3, Brilliant Violet 605™ anti-mouse CD3, Alexa Fluor® 594 anti-mouse CD3, Brilliant Violet 711™ anti-mouse CD3, Biotin anti-mouse CD3, PE/Dazzle™ 594 anti-mouse CD3, APC/Fire™ 750 anti-mouse CD3, Brilliant Violet 750™ anti-mouse CD3, TotalSeq™-A0182 anti-mouse CD3, TotalSeq™-B0182 anti-mouse CD3, Spark Blue™ 550 anti-mouse CD3, Spark NIR™ 685 anti-mouse CD3, TotalSeq™-C0182 anti-mouse CD3, APC/Fire™ 810 anti-mouse CD3, PE/Fire™ 640 anti-mouse CD3, Spark YG™ 570 anti-mouse CD3, PE/Fire™ 700 anti-mouse CD3, PE/Cyanine5 anti-mouse CD3, Spark Blue™ 574 anti-mouse CD3 Antibody, Spark Violet™ 423 anti-mouse CD3, PE/Fire™ 810 anti-mouse CD3, Spark Red™ 718 anti-mouse CD3

## Product Data



C57BL/6 mouse splenocytes were stained with CD3 (clone 17A2) APC (filled histogram) or rat IgG2b,  $\kappa$  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](http://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](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587