

## Alexa Fluor® 647 anti-human CD3 Antibody

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|--------------------------|---|
| <b>Catalog# / Size</b>   | 344825 / 25 tests<br>344826 / 100 tests   |
| <b>Clone</b>             | SK7   |
| <b>Regulatory Status</b> | RUO   |
| <b>Workshop</b>          | HCDM listed   |
| <b>Other Names</b>       | T3, CD3ε  |
| <b>Isotype</b>           | Mouse IgG1, κ   |
| <b>Description</b>       | CD3ε is a 20 kD chain of the CD3/T-cell receptor (TCR) complex, which is composed of two CD3ε, one CD3γ, one CD3δ, one CD3ζ (CD247), and a T-cell receptor (α/β or γ/δ) heterodimer. It is found on all mature T cells, NK T cells, and some thymocytes. CD3, also known as T3, is a member of the immunoglobulin superfamily that plays a role in antigen recognition, signal transduction, and T cell activation. |

### Product Details

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| <b>Verified Reactivity</b>                        | Human   |
| <b>Reported Reactivity</b>                        | Chimpanzee  |
| <b>Antibody Type</b>                              | Monoclonal  |
| <b>Host Species</b>                               | Mouse   |
| <b>Formulation</b>                                | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)   |
| <b>Preparation</b>                                | The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.   |
| <b>Concentration</b>                              | Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)  |
| <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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.<br><br>* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.<br><br>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.<br><br><a href="#">View full statement regarding label licenses</a>   |
| <b>Excitation Laser</b>                           | Red Laser (633 nm)  |
| <b>Application Notes</b>                          | Additional reported application (for the relevant formats) include: immunohistochemical staining of frozen tissue sections <sup>4,5,8</sup> , immunofluorescent staining <sup>6</sup> , and Western blotting <sup>3</sup> .   |
| <b>Application References</b>                     | <ol style="list-style-type: none"> <li>1. Kan EA, <i>et al.</i> 1983. <i>J. Immunol.</i> 131:536.</li> <li>2. Wood GS, <i>et al.</i> 1985. <i>Am. J. Pathol.</i> 120:371.</li> <li>3. Van Dongen JJM, <i>et al.</i> 1988. <i>Blood</i> 71:603. (WB)</li> <li>4. Haringman JJ, <i>et al.</i> 2005. <i>Arthritis Res. Ther.</i> 7:R862. (IHC)</li> <li>5. Carbone A, <i>et al.</i> 1999. <i>Blood</i> 93:2319. (IHC)</li> <li>6. Goyal JJ, <i>et al.</i> 2006. <i>J. Histochem. Cytochem.</i> 54:75. (IF)</li> <li>7. Rutjens E, <i>et al.</i> 2007. <i>J. Immunol.</i> 178:1702.</li> <li>8. Kap Y, <i>et al.</i> 2009. <i>J. Histochem. Cytochem.</i> 57:1159. (IHC)</li> </ol> |
| <b>(PubMed link indicates BioLegend citation)</b> |   |

9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)

## Product Citations

1. Christensen SR, *et al.* 2019. *J Virol.* 93:8. [PubMed](#)

## RRID

AB\_2563440 (BioLegend Cat. No. 344825)  
AB\_2563441 (BioLegend Cat. No. 344826)

## Antigen Details

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| <b>Structure</b>          | Ig superfamily, with the subunits of CD3 $\gamma$ , CD3 $\delta$ , CD3 $\zeta$ , (CD247) and TCR ( $\alpha/\beta$ or $\gamma/\delta$ ) forms CD3/TCR complex, 20 kD   |
| <b>Distribution</b>       | Mature T and NK T cells, during thymocyte differentiation   |
| <b>Function</b>           | Antigen recognition, signal transduction, T cell activation   |
| <b>Ligand/Receptor</b>    | Peptide antigen bound to MHC  |
| <b>Cell Type</b>          | NKT cells, T cells, Tregs   |
| <b>Biology Area</b>       | Immunology, Innate Immunity   |
| <b>Molecular Family</b>   | CD Molecules, TCRs  |
| <b>Antigen References</b> | 1. Barclay N, <i>et al.</i> 1993. <i>The Leucocyte FactsBook</i> . Academic Press. San Diego.<br>2. Beverly P, <i>et al.</i> 1981. <i>Eur. J. Immunol.</i> 11:329.<br>3. Lanier L, <i>et al.</i> 1986. <i>J. Immunol.</i> 137:2501. |
| <b>Gene ID</b>            | <a href="#">916</a>   |

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

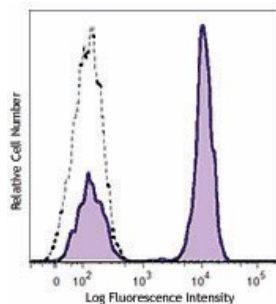
## Other Formats

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APC/Fire™ 750 anti-human CD3, Biotin anti-human CD3, Purified anti-human CD3, FITC anti-human CD3, PE anti-human CD3, Alexa Fluor® 488 anti-human CD3, APC anti-human CD3, PerCP/Cyanine5.5 anti-human CD3, PerCP anti-human CD3, PE/Cyanine7 anti-human CD3, APC/Cyanine7 anti-human CD3, Alexa Fluor® 700 anti-human CD3, Pacific Blue™ anti-human CD3, Alexa Fluor® 647 anti-human CD3, Brilliant Violet 510™ anti-human CD3, Brilliant Violet 421™ anti-human CD3, Brilliant Violet 605™ anti-human CD3, Brilliant Violet 711™ anti-human CD3, Brilliant Violet 785™ anti-human CD3, PE/Dazzle™ 594 anti-human CD3, Brilliant Violet 750™ anti-human CD3, TotalSeq™-A0049 anti-human CD3, TotalSeq™-C0049 anti-human CD3, Spark Blue™ 550 anti-human CD3, TotalSeq™-B0049 anti-human CD3, Alexa Fluor® 660 anti-human CD3, APC/Fire™ 810 anti-human CD3, Spark NIR™ 685 anti-human CD3, PE/Fire™ 640 anti-human CD3, PE/Fire™ 700 anti-human CD3, GMP FITC anti-human CD3, PE/Cyanine5 anti-human CD3 Antibody, GMP PE anti-human CD3, GMP APC anti-human CD3, GMP PerCP/Cyanine5.5 anti-human CD3, Spark YG™ 593 anti-human CD3, GMP PerCP anti-human CD3, Spark Violet™ 500 anti-human CD3

## Product Data

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Human peripheral blood lymphocytes were stained with CD3 (clone SK7) Alexa Fluor® 647 (filled histogram) or mouse IgG1,  $\kappa$  Alexa Fluor® 647 isotype control (open histogram).

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