

## Alexa Fluor® 488 anti-human CD3 Antibody

<b>Catalog# / Size</b>	344810 / 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

<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® 488 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.  * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.  Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.  <a href="#">View full statement regarding label licenses</a>
<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. Goval 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> <li>9. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC)</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	

1. Hale M, *et al.* 2017. *Mol Ther Methods Clin Dev.* 0.3. [PubMed](#)
2. Liu C, *et al.* 2021. *Cell.* 184(7):1836-1857.e22. [PubMed](#)

RRID AB\_10576234 (BioLegend Cat. No. 344810)

## Antigen Details

<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>	<ol style="list-style-type: none"><li>1. Barclay N, <i>et al.</i> 1993. <i>The Leucocyte FactsBook.</i> Academic Press. San Diego.</li><li>2. Beverly P, <i>et al.</i> 1981. <i>Eur. J. Immunol.</i> 11:329.</li><li>3. Lanier L, <i>et al.</i> 1986. <i>J. Immunol.</i> 137:2501.</li></ol>
<b>Gene ID</b>	<a href="#">916</a>

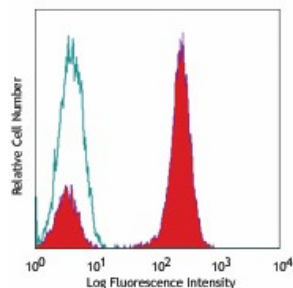
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

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

## Product Data



Human peripheral blood lymphocytes stained with SK7 Alexa Fluor® 488

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