

Alexa Fluor[®] 700 anti-human CD3 Antibody

Catalog# / Size	344821 / 25 tests 344822 / 100 tests
Clone	SK7
Regulatory Status	RUO
Workshop	HCDM listed
Other Names	T3, CD3 ϵ
Isotype	Mouse IgG1, κ
Description	CD3 ϵ is a 20 kD chain of the CD3/T-cell receptor (TCR) complex, which is composed of two CD3 ϵ , one CD3 γ , one CD3 δ , one CD3 ζ (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

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 Alexa Fluor [®] 700 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 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 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood. * Alexa Fluor [®] 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor [®] 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome. Alexa Fluor [®] and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported application (for the relevant formats) include: immunohistochemical staining of frozen tissue sections ^{4,5,8} , immunofluorescent staining ⁶ , and Western blotting ³ .
Application References	<ol style="list-style-type: none"> 1. Kan EA, <i>et al.</i> 1983. <i>J. Immunol.</i> 131:536. 2. Wood GS, <i>et al.</i> 1985. <i>Am. J. Pathol.</i> 120:371. 3. Van Dongen JJM, <i>et al.</i> 1988. <i>Blood</i> 71:603. (WB) 4. Haringman JJ, <i>et al.</i> 2005. <i>Arthritis Res. Ther.</i> 7:R862. (IHC) 5. Carbone A, <i>et al.</i> 1999. <i>Blood</i> 93:2319. (IHC) 6. Goval JJ, <i>et al.</i> 2006. <i>J. Histochem. Cytochem.</i> 54:75. (IF)
(PubMed link indicates BioLegend citation)	

7. Rutjens E, *et al.* 2007. *J. Immunol.* 178:1702.
8. Kap Y, *et al.* 2009. *J. Histochem. Cytochem.* 57:1159. (IHC)
9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)

Product Citations

1. Davis CW *et al.* 2019. *Cell.* 177(6):1566-1582. [PubMed](#)
2. Wang X, *et al.* 2019. *Cell Res.* 29:787. [PubMed](#)
3. Li X, *et al.* 2019. *Front Oncol.* 1:115277778. [PubMed](#)
4. Cytlik U, *et al.* 2020. *Immunity.* 53(2):353-370. [PubMed](#)
5. Pachnio A, *et al.* 2016. *PLoS Pathog.* 12: 1005832. [PubMed](#)
6. Montes de Oca M, *et al.* 2016. *Cell Rep.* 17:399-412. [PubMed](#)
7. Hu EY, *et al.* 2020. *JCI Insight.* 5:00. [PubMed](#)
8. Golebski K, *et al.* 2021. *Immunity.* 54(2):291-307.e7. [PubMed](#)
9. Rossignol ED, *et al.* 2021. *Cell Reports.* 35(8):109167. [PubMed](#)

RRID

AB_2563419 (BioLegend Cat. No. 344821)
 AB_2563420 (BioLegend Cat. No. 344822)

Antigen Details

Structure	Ig superfamily, with the subunits of CD3 γ , CD3 δ , CD3 ζ , (CD247) and TCR (α/β or γ/δ) forms CD3/TCR complex, 20 kD
Distribution	Mature T and NK T cells, during thymocyte differentiation
Function	Antigen recognition, signal transduction, T cell activation
Ligand/Receptor	Peptide antigen bound to MHC
Cell Type	NKT cells, T cells, Tregs
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules, TCRs
Antigen References	<ol style="list-style-type: none"> 1. Barclay N, <i>et al.</i> 1993. <i>The Leucocyte FactsBook.</i> Academic Press. San Diego. 2. Beverly P, <i>et al.</i> 1981. <i>Eur. J. Immunol.</i> 11:329. 3. Lanier L, <i>et al.</i> 1986. <i>J. Immunol.</i> 137:2501.
Gene ID	916

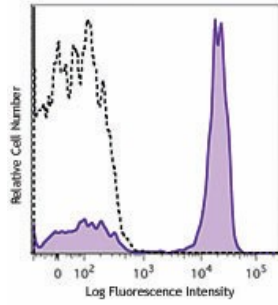
Related Protocols

[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

Product Data



Human peripheral blood lymphocytes were stained with CD3 (clone SK7) Alexa Fluor® 700 (filled histogram) or mouse IgG1, κ Alexa Fluor® 700 isotype control (open histogram).

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