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, CD3ε
Isotype	Mouse IgG1, κ
Description	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

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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl 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

(PubMed link indicates BioLegend citation)

1. Kan EA, *et al.* 1983. *J. Immunol.* 131:536.
2. Wood GS, *et al.* 1985. *Am. J. Pathol.* 120:371.
3. Van Dongen JJM, *et al.* 1988. *Blood* 71:603. (WB)
4. Haringman JJ, *et al.* 2005. *Arthritis Res. Ther.* 7:R862. (IHC)
5. Carbone A, *et al.* 1999. *Blood* 93:2319. (IHC)
6. Goval JJ, *et al.* 2006. *J. Histochem. Cytochem.* 54:75. (IF)

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. Wang X, *et al.* 2019. Cell Res. 29:787. PubMed
2. Montes de Oca M, *et al.* 2016. Cell Rep. 17:399-412. PubMed
3. Zhao Y, *et al.* 2021. Front Immunol. 12:665442. PubMed
4. Fan P, *et al.* 2021. Front Oncol. 11:678758. PubMed
5. Pachnio A, *et al.* 2016. PLoS Pathog. 12: 1005832. PubMed
6. van der Ploeg K, *et al.* 2022. Cell Rep Med. 3:100640. PubMed
7. Rice TF, *et al.* 2021. EBioMedicine. 72:103612. PubMed
8. Yin W, *et al.* 2021. Thorac Cancer. 12:2680. PubMed
9. Li X, *et al.* 2019. Front Oncol. 1.115277778. PubMed
10. You M, *et al.* 2021. Nat Cell Biol. 23:620. PubMed
11. Hu EY, *et al.* 2020. JCI Insight. 5:00. PubMed
12. Davis CW *et al.* 2019. Cell. 177(6):1566-1582 . PubMed
13. Anderson AE, *et al.* 2022. NPJ Regen Med. 7:6. PubMed
14. Rossignol ED, *et al.* 2021. Cell Reports. 35(8):109167. PubMed
15. Collins DR, *et al.* 2021. Immunity. 54:2372. PubMed
16. Golebski K, *et al.* 2021. Immunity. 54(2):291-307.e7. PubMed
17. Cytlak U, *et al.* 2020. Immunity. 53(2):353-370. PubMed
18. Gamradt S, *et al.* 2021. iScience. 24:103312. PubMed

RRID

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

Antigen Details

Structure

Ig superfamily, with the subunits of CD3γ, CD3δ, CD3ζ, (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

1. Barclay N, *et al.* 1993. The Leucocyte FactsBook. Academic Press. San Diego.
2. Beverly P, *et al.* 1981. *Eur. J. Immunol.* 11:329.
3. Lanier L, *et al.* 1986. *J. Immunol.* 137:2501.

Gene ID

916

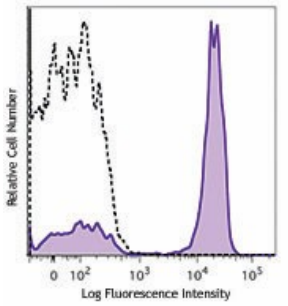
Related Protocols

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, 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



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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