Purified anti-human CD3 Antibody

Catalog# / Size	344801 / 25 µg 344802 / 100 µg
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.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - *Quality tested* ICC, IHC-F, WB - *Reported in the literature, not verified in house*
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 ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
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. Abdel-Gadir A, *et al.* 2019. Nat Med. 25:1164. PubMed
2. Meckiff BJ, *et al.* 2019. J Immunol. 203:1276. PubMed
3. Brinkmann CR, *et al.* 2018. mSphere. 3:e00616. PubMed
4. Jacob F, *et al.* 2020. Cell. 180(1):188-204.e22.. PubMed
5. Backes CS, *et al.* 2018. J Biol Chem. 293:16348. PubMed
6. Jacob F, *et al.* 2020. Nat Protoc. 15:4000. PubMed

7. Li Y, *et al.* 2019. Front Immunol. 0.460416667. PubMed
8. Sattler A, *et al.* 2021. Am J Transplant. 21:87. PubMed
9. Murayama M, *et al.* 2015. Nat Commun. 6: 8483. PubMed
10. Eriksson E, *et al.* 2017. Clin Cancer Res. 5.018055556. PubMed
11. Xie CB, *et al.* 2020. J Clin Invest. 130:3437. PubMed

RRID

AB_2043994 (BioLegend Cat. No. 344801)
AB_2043995 (BioLegend Cat. No. 344802)

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

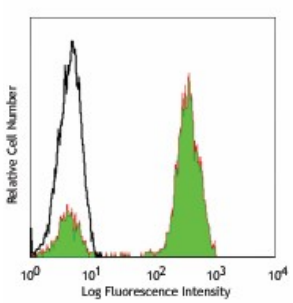
Related Protocols

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 stained with SK7 FITC.

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