

Ultra-LEAF™ Purified anti-mouse CD3 Antibody

Catalog# / Size	100239 / 100 µg 100238 / 1 mg 100253 / 5 mg 100254 / 25 mg 100255 / 50 mg 100256 / 100 mg
Clone	17A2
Regulatory Status	RUO
Other Names	T cell antigen receptor complex, T3
Isotype	Rat IgG2b, κ
Description	CD3, also known as T3, is a member of the Ig superfamily and primarily expressed on T cells, NK-T cells, and at different levels on thymocytes during T cell differentiation. CD3 is composed of CD3ε, δ, γ and ζ chains. It forms a TCR complex by associating with TCR α/β or γ/δ chains. CD3 plays a critical role in TCR signal transduction, T cell activation, and antigen recognition by binding the peptide/MHC antigen complex

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	γδTCR-positive T-T hybridoma D1
Formulation	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/µg of the protein (<0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. 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. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	FC - Quality tested IHC-F, IP, ICC - 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 ≤ 1.0 µg per million cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Additional reported application (for relevant formats) include: spatial biology (IBEX) ^{1,2} .
Application References	1. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci U S A.</i> 117:33455-65. (SB) PubMed 2. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) PubMed
(PubMed link indicates BioLegend citation)	
Product Citations	1. Otano I, <i>et al.</i> 2021. <i>Nat Commun.</i> 12:7296. PubMed 2. Gkountidi AO, <i>et al.</i> 2021. <i>Cancer Immunol Res.</i> 9:748. PubMed 3. Saito S, <i>et al.</i> 2020. <i>Nutrients.</i> 12: PubMed 4. Anastasiou M, <i>et al.</i> 2021. <i>JCI Insight.</i> 6: PubMed 5. Garo LP, <i>et al.</i> 2019. <i>Cell Rep.</i> 28:3353. PubMed 6. Fajstova A, <i>et al.</i> 2020. <i>Cells.</i> 9:00. PubMed

7. Watson MJ, *et al.* 2021. *Nature*. 591:645. [PubMed](#)
8. Teh MR, *et al.* 2021. *Front Immunol*. 12:714613. [PubMed](#)
9. Wang T *et al.* 2018. *Immunity*. 49(3):504-514 . [PubMed](#)
10. De Cicco P, *et al.* 2019. *British Journal of Pharmacology*. 177(4):884-897. [PubMed](#)
11. Liu Y, *et al.* 2018. *Cancer Cell*. 33:480. [PubMed](#)
12. Xu L, *et al.* 2022. *Nat Commun*. 13:6881. [PubMed](#)
13. Wang J, *et al.* 2021. *Am J Cancer Res*. 11:2005. [PubMed](#)
14. Radulovic V, *et al.* 2020. *Cell Reports*. 27(10):2826-2836.e5.. [PubMed](#)

RRID	AB_2810313 (BioLegend Cat. No. 100239)
	AB_2561487 (BioLegend Cat. No. 100238)
	AB_2810314 (BioLegend Cat. No. 100253)
	AB_2810315 (BioLegend Cat. No. 100254)
	AB_2810316 (BioLegend Cat. No. 100255)
	AB_2810317 (BioLegend Cat. No. 100256)

Antigen Details

Structure	Ig superfamily, CD3/TCR, 20 kD
Distribution	Thymocytes (differentiation dependent), mature T cells, NK-T cells
Function	Antigen recognition, TCR signal transduction, T cell activation
Ligand/Receptor	Peptide antigen/MHC-complex
Antigen References	<ol style="list-style-type: none"> 1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press. 2. Davis MM. 1990. <i>Annu. Rev. Biochem.</i> 59:475. 3. Weiss A, <i>et al.</i> 1994. <i>Cell</i> 76:263.
Gene ID	12502

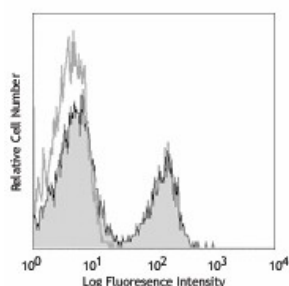
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

FITC anti-mouse CD3, PE anti-mouse CD3, Purified anti-mouse CD3, Alexa Fluor® 647 anti-mouse CD3, Alexa Fluor® 488 anti-mouse CD3, Pacific Blue™ anti-mouse CD3, Alexa Fluor® 700 anti-mouse CD3, PerCP/Cyanine5.5 anti-mouse CD3, PE/Cyanine7 anti-mouse CD3, APC/Cyanine7 anti-mouse CD3, Brilliant Violet 421™ anti-mouse CD3, Brilliant Violet 570™ anti-mouse CD3, Brilliant Violet 650™ anti-mouse CD3, Brilliant Violet 785™ anti-mouse CD3, Brilliant Violet 510™ anti-mouse CD3, APC anti-mouse CD3, Ultra-LEAF™ Purified anti-mouse CD3, Brilliant Violet 605™ anti-mouse CD3, Alexa Fluor® 594 anti-mouse CD3, Brilliant Violet 711™ anti-mouse CD3, Biotin anti-mouse CD3, PE/Dazzle™ 594 anti-mouse CD3, APC/Fire™ 750 anti-mouse CD3, Brilliant Violet 750™ anti-mouse CD3, TotalSeq™-A0182 anti-mouse CD3, TotalSeq™-B0182 anti-mouse CD3, Spark Blue™ 550 anti-mouse CD3, Spark NIR™ 685 anti-mouse CD3, TotalSeq™-C0182 anti-mouse CD3, APC/Fire™ 810 anti-mouse CD3, PE/Fire™ 640 anti-mouse CD3, Spark YG™ 570 anti-mouse CD3, PE/Fire™ 700 anti-mouse CD3, PE/Cyanine5 anti-mouse CD3, Spark Blue™ 574 anti-mouse CD3 Antibody, Spark Violet™ 423 anti-mouse CD3, PE/Fire™ 810 anti-mouse CD3, Spark Red™ 718 anti-mouse CD3

Product Data



C57BL/6 mouse splenocytes stained with Ultra-LEAF™ purified CD3 (clone 17A2), followed by anti-rat IgG FITC.

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