

GolnVivo™ Purified anti-mouse CD3ε Antibody

Catalog# / Size	100363 / 5 mg 100364 / 25 mg 100365 / 50 mg 100366 / 100 mg 100367 / 500 mg 100368 / 1 g
Clone	145-2C11
Regulatory Status	RUO
Other Names	CD3ε, T3, CD3
Isotype	Armenian Hamster IgG
Description	CD3ε is a 20 kD transmembrane protein, also known as CD3 or T3. It 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. CD3ε forms a TCR complex by associating with the CD3δ, γ and ζ chains, as well as the 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	Armenian Hamster
Immunogen	H-2K ^b -specific mouse cytotoxic T lymphocyte clone BM10-37
Formulation	0.2 μm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <1.0 EU/mg of the protein. (<0.01 pg/μg of the protein) as determined by the LAL test.
Preparation	The GolnVivo™ 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.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This GolnVivo™ solution contains no preservative; handle under aseptic conditions.
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 ≤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. For <i>in vivo</i> and <i>in vitro</i> applications, we recommend to perform a pilot experiment to determine the optimal concentration to use for each particular experiment.
Application Notes	GolnVivo™ products are guaranteed to be pathogen-free based on the IDEXX BioResearch IMPACT test via PCR. For a full listing of pathogens tested, visit the GolnVivo™ Webpage .

The 145-2C11 antibody is useful for *in vitro* blocking and activation assays, as well as apoptosis induction and *in vivo* T cell depletion. Additional reported applications (for relevant formats of this clone) include: immunoprecipitation¹, immunohistochemical staining^{14,15} of acetone-fixed frozen sections and zinc-fixed paraffin-embedded sections, Western blotting⁴, complement-mediated cytotoxicity⁶, *in vitro* and *in vivo* stimulation of T cells^{1,2,7,12,16}, immunofluorescent staining⁵, and *in vivo* T cell depletion⁸⁻¹⁰. The 145-2C11 antibody has been reported to block the binding of 17A2 antibody to CD3 epsilon-specific T cells¹¹. Clone 145-2C11 is not recommended for formalin-fixed paraffin embedded sections. The LEAF™ purified antibody (Endotoxin <0.1 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 100314). For *in vivo* studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 100340) with a lower

endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/μg).

Application References

(PubMed link indicates BioLegend citation)

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Product Citations

1. Ambler R, *et al.* 2020. *Science Signaling.* 13(649):. [PubMed](#)

RRID

AB_2632704 (BioLegend Cat. No. 100363)
AB_2632705 (BioLegend Cat. No. 100364)
AB_2632706 (BioLegend Cat. No. 100365)
AB_2632707 (BioLegend Cat. No. 100366)
AB_2632708 (BioLegend Cat. No. 100367)
AB_2632709 (BioLegend Cat. No. 100368)

Antigen Details

Structure	Ig superfamily, forms CD3/TCR complex with CD3δ, γ and ζ subunits and TCR (α/β and γ/δ), 20 kD
Distribution	Thymocytes (differentiation dependent), mature T cells, NK-T cells
Function	TCR signal transduction, T cell activation, antigen recognition
Ligand/Receptor	Peptide antigen/MHC-complex
Cell Type	NKT cells, T cells, Thymocytes, Tregs
Biology Area	Immunology
Molecular Family	CD Molecules, TCRs
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	12501

Other Formats

APC anti-mouse CD3ε, Biotin anti-mouse CD3ε, FITC anti-mouse CD3ε, PE anti-mouse CD3ε, PE/Cyanine5 anti-mouse CD3ε, Purified anti-mouse CD3ε, PE/Cyanine7 anti-mouse CD3ε, Alexa Fluor® 488 anti-mouse CD3ε, Alexa Fluor® 647 anti-mouse CD3ε, PerCP anti-mouse CD3ε, PerCP/Cyanine5.5 anti-mouse CD3ε, Purified anti-mouse CD3ε (Maxpar® Ready), APC/Cyanine7 anti-

mouse CD3 ϵ , Pacific Blue™ anti-mouse CD3 ϵ , Brilliant Violet 421™ anti-mouse CD3 ϵ , Ultra-LEAF™ Purified anti-mouse CD3 ϵ , PE/Dazzle™ 594 anti-mouse CD3 ϵ , Brilliant Violet 510™ anti-mouse CD3 ϵ , Brilliant Violet 605™ anti-mouse CD3 ϵ , Brilliant Violet 711™ anti-mouse CD3 ϵ , Brilliant Violet 785™ anti-mouse CD3 ϵ , APC/Fire™ 750 anti-mouse CD3 ϵ , GolnVivo™ Purified anti-mouse CD3 ϵ , Spark YG™ 593 anti-mouse CD3

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