

## Anti-Mouse CD3ε Antibody, Clone 145-2C11, Biotin



Scientists Helping Scientists™ | [WWW.STEMCELL.COM](http://WWW.STEMCELL.COM)

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

[INFO@STEMCELL.COM](mailto:INFO@STEMCELL.COM) • [TECHSUPPORT@STEMCELL.COM](mailto:TECHSUPPORT@STEMCELL.COM)

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

## Antibodies

Hamster (Armenian) monoclonal IgG1 antibody against mouse CD3ε, biotin-conjugated

Catalog #60015BT	500 µg	0.5 mg/mL
#60015BT.1	50 µg	0.5 mg/mL

## Product Description

The 145-2C11 antibody reacts with the ~20 kDa CD3ε subunit of the mouse T cell receptor (TCR)/CD3 complex, which is expressed on the surface of circulating mature T cells and NKT cells, and variably on thymocytes. A majority of T cell neoplasms also express CD3. The CD3 complex, which is assembled from combinations of CD3γ, δ, ε, η, and ζ subunits, associates non-covalently with the TCR and is involved in transducing antigen recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR. Activation of T cells by the TCR involves the cytoplasmic tails of the CD3 subunits, which are structurally related type 1 transmembrane proteins and members of the immunoglobulin superfamily. Mutations in the CD3 subunits have been associated with various immunodeficiency disorders including severe combined immunodeficiency (SCID). The 145-2C11 antibody has been used for in vitro functional (blocking and activation) assays and has been reported to block binding by the clone 17A2 antibody. The 145-2C11 antibody is not recommended for use with formalin-fixed, paraffin-embedded sections.

Target Antigen Name:	CD3ε
Alternative Names:	CD3, CD3epsilon, T3
Gene ID:	12501
Species Reactivity:	Mouse
Host Species:	Hamster (Armenian)
Clonality:	Monoclonal
Clone:	145-2C11
Isotype:	IgG1, kappa
Immunogen:	H-2Kb-specific mouse cytotoxic T lymphocyte clone BM10-37
Conjugate:	Biotin

## Applications

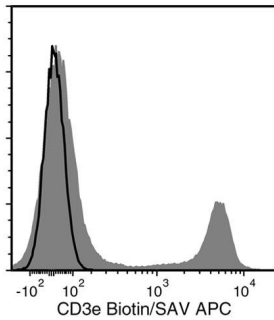
Verified:	CellSep, FC
Reported:	ELISA, FA, FC, IF, IHC, IP, WB
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse T Cell Isolation Kit (Catalog #19851) and EasySep™ Mouse CD90.2 Positive Selection Kit II (Catalog #18951).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

## Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact <a href="mailto:techsupport@stemcell.com">techsupport@stemcell.com</a> .
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 0.25 µg per 1 × 10 <sup>6</sup> cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD3e Antibody, Clone 145-2C11, Biotin followed by streptavidin (SAV) APC (filled histogram) or an Armenian hamster IgG biotin isotype control antibody followed by SAV APC (solid line histogram).

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

1. Xia CQ et al. (2014) Anti-CD3 antibody treatment induces hypoglycemia and super tolerance to glucose challenge in mice through enhancing glucose consumption by activated lymphocytes. *J Immunol Res* 2014: 1–11. (FA)
2. Shiheido H et al. (2014) Novel CD3-specific antibody induces immunosuppression via impaired phosphorylation of LAT and PLC $\gamma$ 1 following T-cell stimulation. *Eur J Immunol* 44(6): 1770–80. (FA, FC)
3. Loubaki L et al. (2013) In vivo depletion of leukocytes and platelets following injection of T cell-specific antibodies into mice. *J Immunol Methods* 393(1-2): 38–44. (FA/Depletion, FC)
4. Qi Q et al. (2009) Enhanced development of CD4+ gammadelta T cells in the absence of Itk results in elevated IgE production. *Blood* 114(3): 564–71. (FACS, FC)
5. Chappaz S et al. (2007) Increased TSLP availability restores T- and B-cell compartments in adult IL-7 deficient mice. *Blood* 110(12): 3862–70. (FC, IF, IHC)
6. Takeuchi A et al. (2005) CCR5-deficient mice develop experimental autoimmune uveoretinitis in the context of a deviant effector response. *Invest Ophthalmol Vis Sci* 46(10): 3753–60. (IF, IHC)
7. Schuchert MJ et al. (2000) Characterization of a newly discovered T-cell receptor beta-chain heterodimer expressed on a CD8+ bone marrow subpopulation that promotes allogeneic stem cell engraftment. *Nat Med* 6(8): 904–9. (FC, IP)
8. Castro JE et al. (1996) Fas modulation of apoptosis during negative selection of thymocytes. *Immunity* 5(6): 617–27. (FA/Activation)
9. Salvadori S et al. (1994) Abnormal signal transduction by T cells of mice with parental tumors is not seen in mice bearing IL-2-secreting tumors. *J Immunol* 153(11): 5176–82. (FA/Activation, FC, WB)
10. Payer E et al. (1991) Circulating CD3+/T cell receptor V gamma 3+ fetal murine thymocytes home to the skin and give rise to proliferating dendritic epidermal T cells. *J Immunol* 146(8): 2536–43. (FACS, FC, IF, IHC)
11. Portoles P et al. (1989) Monoclonal antibodies to murine CD3 epsilon define distinct epitopes, one of which may interact with CD4 during T cell activation. *J Immunol* 142(12): 4169–75. (FA, IP)
12. Leo O et al. (1987) Identification of a monoclonal antibody specific for a murine T3 polypeptide. *Proc Natl Acad Sci USA* 84(5): 1374–8. (FA, FC, IP)

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2018 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, and EasySep are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. Alexa Fluor is a registered trademark of Life Technologies Corporation. Antibodies conjugated to Alexa Fluor® are licensed for internal research use only and sale is expressly conditioned on the buyer not using the antibody for manufacturing, performing a service or medical test, or otherwise generating revenue. For use other than research, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or [outlicensing@lifetech.com](mailto:outlicensing@lifetech.com). While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.