

Antibodies

Anti-Mouse CD3ε Antibody, Clone 145-2C11, Alexa Fluor® 488

Hamster (Armenian) monoclonal IgG
antibody against mouse CD3ε,
Alexa Fluor® 488-conjugated



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Catalog #60015AD

100 µg 0.5 mg/mL

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

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 NK-T 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 super family. Mutations in the CD3 subunits have been associated with various immunodeficiency disorders including 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:	CD3epsilon, T3, CD3
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:	Alexa Fluor® 488

Applications

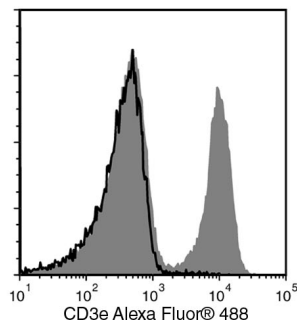
Verified:	FC
Reported:	FC, IF, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse T Cell Enrichment Kit (Catalog #19751) and EasySep™ Mouse T Cell Isolation Kit (Catalog #19851).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; 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 Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please request a lot-specific Certificate of Analysis from techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 2.0 µg per 1 x 10 ⁶ cells in 100 µL volume. 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, Alexa Fluor® 488 (filled histogram) or an Armenian hamster IgG Alexa Fluor® 488 isotype control antibody (solid line histogram).

Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Mouse CD3e Antibody, Clone 145-2C11	60015	500 µg
Anti-Mouse CD3e Antibody, Clone 145-2C11, PE	60015PE	200 µg
Anti-Mouse CD3e Antibody, Clone 145-2C11, PE	60015PE.1	50 µg
Anti-Mouse CD3e Antibody, Clone 145-2C11, Alexa Fluor® 488	60015AD	100 µg

References

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3. Payer E, et al. 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, 1991 (IF)
4. Salvadori S, et al. 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, 1994 (WB)
5. Castro JE, et al. Fas modulation of apoptosis during negative selection of thymocytes. Immunity 5(6): 617-27, 1996 (FA, IP)
6. Schuchert MJ, et al. 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): 904-09, 2000 (IP, WB)
7. Takeuchi A, et al. CCR5-deficient mice develop experimental autoimmune uveoretinitis in the context of a deviant effector response. Invest Ophthalmol Vis Sci 46(10): 3753-60, 2005 (IHC)
8. Chappaz S, et al. Increased TSLP availability restores T- and B-cell compartments in adult IL-7 deficient mice. Blood 110(12): 3862-70, 2007 (FC)
9. Kenna TJ, et al. Steady-state dendritic cells expressing cognate antigen terminate memory CD8+ T-cell responses. Blood 111(4): 2091-100, 2008
10. Qi Q, et al. Enhanced development of CD4+ gammadelta T cells in the absence of Itk results in elevated IgE production. Blood 114(3): 564-71, 2009

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