

Antibodies

Anti-Mouse TCR Gamma/Delta Antibody, Clone GL3, Alexa Fluor® 488



Scientists Helping Scientists™ | WWW.STEMCELL.COM

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

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Catalog #60104AD
#60104AD.1

Hamster (Armenian) monoclonal IgG2 antibody against mouse T cell receptor gamma/delta, Alexa Fluor® 488-conjugated

100 µg 0.5 mg/mL
25 µg 0.5 mg/mL

Product Description

The GL3 antibody reacts with the δ chain of the murine T cell receptor γ/δ (TCR γ/δ or TCR gamma/delta), a subtype of the TCR involved in the recognition of both peptide and lipid antigens. TCR γ/δ comprises a heterodimer (~ 80 kDa in humans) of disulfide-linked γ and δ subunits that associates with CD3 on the cell surface. It is a member of the immunoglobulin superfamily. TCR γ/δ is expressed on a subpopulation of T cells in the circulation but may be found on up to 50% of the T cells in epithelial cell-rich tissues. TCR γ/δ T cells have been identified in the thymus, epidermis, intestinal and pulmonary epithelia, peritoneum, peripheral lymphoid tissues, and reproductive organ mucosa. These cells have roles in oral and tumor-associated tolerance as well as autoimmune disease, and have been described as a link between the adaptive and innate immune responses. Once activated, they secrete effector cytokines in a subtype- and context-specific manner. Most γ/δ T cells are CD4-/CD8-, though some express CD8. A subset, known as dendritic epidermal T cells, are CD90+ (Thy-1+). The GL3 antibody recognizes an epitope in the constant region of the δ chain, and can reportedly activate TCR γ/δ + cells.

Target Antigen Name:	T Cell Receptor Gamma/Delta
Alternative Names:	Gamma/Delta TCR , gdTCR, TCRgd, TCR γ/δ , T cell receptor delta chain, T cell receptor gamma chain, T cell receptor γ/δ , T3D, T3G
Gene ID:	110066/110067
Species Reactivity:	Mouse
Host Species:	Hamster (Armenian)
Clonality:	Monoclonal
Clone:	GL3
Isotype:	IgG2, kappa
Immunogen:	Mouse (C57BL/6J) intra-epithelial lymphocytes
Conjugate:	Alexa Fluor® 488

Applications

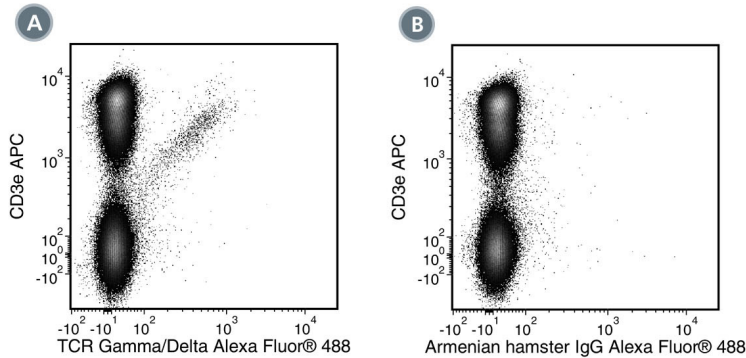
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep Mouse T Cell Isolation Kit (Catalog #19851).

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 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 contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is $\leq 0.5 \mu\text{g}$ per 1×10^6 cells in 100 μL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of C57BL/6 mouse lymph node cells labeled with Anti-Mouse TCR Gamma/Delta Antibody, Clone GL3, Alexa Fluor® 488 and Anti-Mouse CD3e Antibody, Clone 145-2C11, APC (Catalog #60015AZ).

(B) Flow cytometry analysis of C57BL/6 mouse lymph node cells labeled with an Armenian hamster IgG isotype control antibody, Alexa Fluor® 488 and Anti-Mouse CD3e Antibody, Clone 145-2C11, APC.

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 or contact us at techsupport@stemcell.com.

References

- Nian H et al. (2011) Activated gammadelta T cells promote the activation of uveitogenic T cells and exacerbate EAU development. *Invest Ophthalmol Vis Sci* 52(8): 5920–7. (FA/Activation)
- Kasten KR et al. (2010) Interleukin-7 (IL-7) treatment accelerates neutrophil recruitment through gamma delta T-cell IL-17 production in a murine model of sepsis. *Infect Immun* 78(11): 4714–22. (FC)
- Koenecke C et al. (2009) In vivo application of mAb directed against the gammadelta TCR does not deplete but generates “invisible” gammadelta T cells. *Eur J Immunol* 39(2): 372–9. (FA/Activation, FC)
- Stewart CA et al. (2007) Germ-line and rearranged Tcrd transcription distinguish bona fide NK cells and NK-like gammadelta T cells. *Eur J Immunol* 37(6): 1442–52. (FC)
- Cardona AE et al. (2003) CC chemokines mediate leukocyte trafficking into the central nervous system during murine neurocysticercosis: role of gamma delta T cells in amplification of the host immune response. *Infect Immun* 71(5): 2634–42. (IF, IHC)
- Skelsey ME et al. (2001) Gamma delta T cells are needed for ocular immune privilege and corneal graft survival. *J Immunol* 166(7): 4327–33. (FA/Blocking, FC)
- Yañez DM et al. (1999) Gamma delta T-cell function in pathogenesis of cerebral malaria in mice infected with *Plasmodium berghei* ANKA. *Infect Immun* 67(1): 446–8. (Depletion)
- Skeen MJ & Ziegler HK. (1993) Induction of murine peritoneal gamma/delta T cells and their role in resistance to bacterial infection. *J Exp Med* 178(3): 971–84. (Depletion, FC)
- Goodman T et al. (1992) A T-cell receptor gamma delta-specific monoclonal antibody detects a V gamma 5 region polymorphism. *Immunogenetics* 35(1): 65–8. (FC)
- Goodman T & Lefrancois L. (1989) Intraepithelial lymphocytes. Anatomical site, not T cell receptor form, dictates phenotype and function. *J Exp Med* 170(5): 1569–81. (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 © 2017 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. This product is licensed for internal research use only and its sale is expressly conditioned on the buyer not using it 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. 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.