

**APC/Fire™ 750 anti-mouse TCR  $\gamma/\delta$**

**Catalog # / Size:** 1190680 / 100  $\mu$ g  
1190675 / 25  $\mu$ g

**Clone:** GL3

**Isotype:** Hamster IgG

**Immunogen:** C57BL/6J intraepithelial lymphocytes

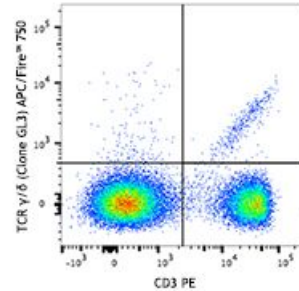
**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC/Fire™

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Workshop Number:** 750 under optimal conditions.

**Concentration:** 0.2 mg/ml



C57BL/6 mouse splenocytes were stained with CD3 PE and and TCR  $\gamma/\delta$  (clone GL3) APC/Fire™ 750 (top) or Armenian hamster IgG APC/Fire™ 750 isotype control (bottom).

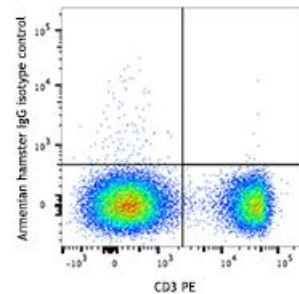
**Applications:**

**Applications:** Flow Cytometry

**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  $\leq 0.25$   $\mu$ g per million cells in 100  $\mu$ l volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** The GL3 antibody has been shown to be useful in identifying  $\gamma/\delta$  T cells by flow cytometry and immunohistochemistry and depleting  $\gamma/\delta$  T cells *in vivo*. Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>1</sup>, immunohistochemistry of acetone-fixed frozen sections<sup>2,6</sup>, and *in vivo* depletion of  $\gamma/\delta$  T cells<sup>3-5</sup>.

\* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.



C57BL/6 mouse bone marrow cells were stained with CD150 (SLAM) (clone TC15-12F12.2) APC/Fire™ 750 (filled histogram) or rat IgG2a,  $\kappa$  APC/Fire™ 750 isotype control (open histogram).

**Application  
References:**

1. Goodman T, et al. 1989. *J. Exp. Med.* 170:1569. (FC, IP)
  2. Cardona AE, et al. 2003. *Infect. Immun.* 71:2634. (IHC)
  3. Kapp JA, et al. 2004. *Immunology* 111:155. (Deplete)
  4. Skelsey ME, et al. 2001. *J. Immunol.* 166:4327. (Deplete)
  5. Ke Y, et al. 1997. *J. Immunol.* 158:3610. (Deplete)
  6. Podd BS, et al. 2006. *J. Immunol.* 176:6532. (IHC)
  7. Kasten KR, et al. 2010. *Infect. Immun.* 78:4714. (FC) [PubMed](#)
  8. Stadanlick JE, et al. 2011. *J. Immunol.* 187:664. [PubMed](#)
  9. Van Belle AB, et al. 2012. *J. Immunol.* 188:462. [PubMed](#)
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**Description:** T cell receptor (TCR) is a heterodimer consisting of an  $\alpha$  and a  $\beta$  chain (TCR  $\alpha/\beta$ ) or a  $\gamma$  and a  $\delta$  chain (TCR  $\gamma/\delta$ ). TCR  $\gamma/\delta$  belongs to the immunoglobulin superfamily, which is involved in the recognition of certain bacterial and tumor antigens bound to MHC class I.  $\gamma/\delta$  TCR associates with CD3 and is expressed on a T cell subset found in the thymus, the intestinal epithelium, and the peripheral lymphoid tissues and peritoneum. Most  $\gamma/\delta$  T cells are CD4<sup>-</sup>/CD8<sup>-</sup> although some are CD8<sup>+</sup>. T cells expressing the  $\gamma/\delta$  TCR have been shown to play a role in oral tolerance, tumor-associated tolerance, and autoimmune disease. It has been reported that  $\gamma/\delta$  T cells also play a principal role in antigen presentation.

**Antigen  
References:**

1. Skarstein K, et al. 1995. *Immunology.* 81:497.
2. Harrison LC, et al. 1996. *J Exp Med.* 184:2167.
3. Wildner G, et al. 1996. *Eur J Immunol.* 26:2140.
4. Brandes M, et al. 2005. *Science.* 309:264.