

**APC/Cyanine7 anti-mouse TCR  $\gamma/\delta$**

**Catalog # / Size:** 1190715 / 25  $\mu$ g

**Clone:** GL3

**Isotype:** Hamster IgG

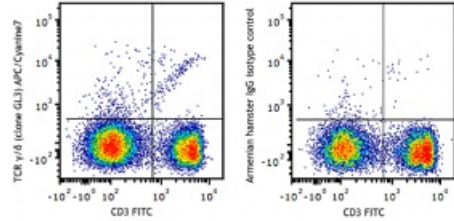
**Immunogen:** C57BL/6j intraepithelial lymphocytes

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC/Cyanine7 under optimal conditions.

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

**Concentration:** 0.2 mg/mL



C57BL/6 mouse splenocytes were stained with anti-mouse CD3 FITC and anti-mouse TCR  $\gamma/\delta$  APC/Cyanine7 (clone GL3) (left) or Armenian hamster IgG APC/Cyanine7 isotype control (right).

**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>.

- 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](#)

**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.