SONY

Product Data Sheet

PE/Cy7 anti-mouse TCR γ/δ

Catalog # / Size: 1190620 / 100 µg
1190615 / 25 µg

Clone: GL3

Isotype: Hamster IgG

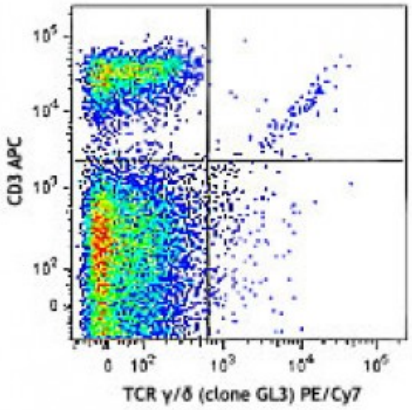
Immunogen: C57BL/6J intraepithelial lymphocytes

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 and unconjugated antibody.

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

Concentration: 0.2

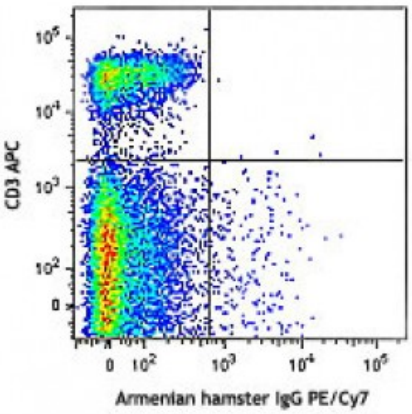


C57BL/6 mouse splenocytes were stained with CD3 APC and TCR γ/δ (clone GL3) PE/Cy7 (top) or Armenian hamster IgG PE/Cy7 isotype control (bottom).

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 ≤0.25 microg per million cells in 100 microL 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 γ/δ T cells by flow cytometry and immunohistochemistry and depleting γ/δ T cells *in vivo*. Additional reported applications (for the relevant formats) include: immunoprecipitation1, immunohistochemistry of acetone-fixed frozen sections[2,6], and *in vivo* depletion of γ/δ T cells[3-5].

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
10. Macagno M, *et al.* 2014. *J Immunol.* 192:5434. PubMed
11. Nakamura M, *et al.* 2015. *J Immunol.* 194:243. PubMed

Description: T cell receptor (TCR) is a heterodimer consisting of an α and a β chain (TCR α/β) or a γ and a δ chain (TCR γ/δ). TCR γ/δ belongs to the immunoglobulin superfamily, which is involved in the recognition of certain bacterial and tumor antigens bound to MHC class I. γ/δ 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 γ/δ T cells are $CD4^-/CD8^-$ although some are $CD8^+$. T cells expressing the γ/δ TCR have been shown to play a role in oral tolerance, tumor-associated tolerance, and autoimmune disease. It has been reported that γ/δ 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.*