SONY

Product Data Sheet

Alexa Fluor® 647 anti-mouse TCR γ/δ

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Catalog # / Size:	1190665 / 25 μg 1190670 / 100 μg
Clone:	GL3
Isotype:	Hamster IgG
Immunogen:	C57BL/6J intraepithelial lymphocytes
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration:	0.2
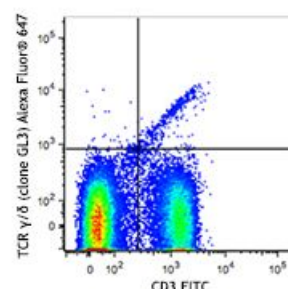
C57BL/6 mouse splenocytes were stained with CD3 FITC and TCR γ/δ (clone GL3) Alexa Fluor® 647 (top) or Armenian hamster IgG Alexa Fluor® 647 isotype control (bottom).
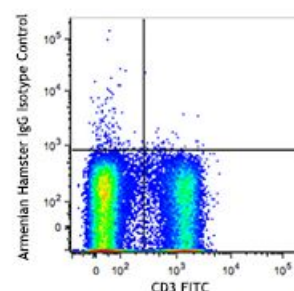
Applications:

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 ≤0.5 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.
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: immunoprecipitation[1], 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

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.*