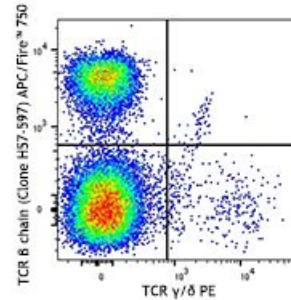


**APC/Fire™ 750 anti-mouse TCR β chain**

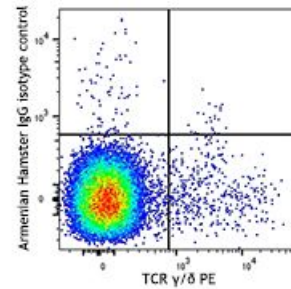
**Catalog # /** 1146230 / 100 µg  
**Size:** 1146225 / 25 µg  
**Clone:** H57-597  
**Isotype:** Hamster IgG  
**Immunogen:** Affinity purified TCR from mouse DO-11.10 cells  
**Reactivity:** Mouse  
**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC/Fire™  
**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 splenocytes were stained with TCR γ/δ PE and TCR β chain (clone H57-597) 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 ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.  
 \* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.



**Application Notes:** H57-597 is a hamster mAb directed to an epitope of the C region of TCR  $\beta$  chain<sup>12</sup>. The H57-597 antibody does not cross-react with  $\gamma/\delta$  TCR-bearing T cells. Immobilized or soluble H57-597 antibody can activate  $\alpha/\beta$  TCR-bearing T cells. Additional reported applications (for the relevant formats) for this antibody include: immunoprecipitation<sup>2</sup>, *in vitro* stimulation<sup>2,3</sup>, *in vivo* depletion<sup>4-6</sup>, and immunohistochemical staining of acetone-fixed frozen sections<sup>7,8,9</sup>. The Ultra-LEAF™ purified antibody (Endotoxin <0.01 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m filtered) is recommended for functional assays (Cat. No. 109253-109258).

- Application References:**
1. Gascoigne NJ. 1990. *J. Biol. Chem.* 265:9296.
  2. Kruisbeek A, *et al.* 1991. *In Current Protocols in Immunology.* pp. 3.12.1. (Costim IP)
  3. Davenport C, *et al.* 1995. *J. Immunol.* 155:3742. (Costim)
  4. Drobyski W, *et al.* 1996. *Blood* 87:5355. (Deplete)
  5. Kummer U, *et al.* 2001. *Immunol. Lett.* 75:153. (Deplete)
  6. van der Heyde HC, *et al.* 1995. *J. Immunol.* 154:3985. (Deplete)
  7. Tomita K, *et al.* 1999. *Genes Dev.* 13:1203. (IHC)
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  9. Ponomarev ED, *et al.* 2007. *J. Immunol.* 178:39. (IHC)
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  11. Tsukumo S, *et al.* 2006. *J. Immunol.* 177:8365. (FC) [PubMed](#)
  12. Grégoire C, *et al.* 1991. *Proc. Natl. Acad. Sci USA* 88:8077.
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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- $\beta$  is a member of the immunoglobulin superfamily and a component of the CD3/TCR complex (along with TCR- $\alpha$ ). It is expressed on  $\alpha/\beta$  TCR-bearing T cells and thymocytes. The CD3/TCR complex plays a key role in antigen recognition, signal transduction, and T cell activation.

- Antigen References:**
1. Davis MM, *et al.* 1998. *Ann. Rev. Immunol.* 16:523.
  2. Huppa JB, *et al.* 2003. *Nat. Immunol.* 4:749.
  3. Kubo R, *et al.* 1989. *J. Immunol.* 142:2736.