

## PE/Fire™ 700 anti-human TCR $\gamma/\delta$ Antibody

<b>Catalog# / Size</b>	331237 / 25 tests 331238 / 100 tests
<b>Clone</b>	B1
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	T cell receptor $\gamma/\delta$ , $\gamma/\delta$ TCR, TCR- $\gamma/\delta$
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	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 $\gamma/\delta$ is involved in the recognition of certain bacterial, self-CD1 molecule, and tumor antigens bound to MHC class I. The $\gamma/\delta$ TCR associates with CD3 and is expressed on a subset of T cells 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> , some are CD8 <sup>+</sup> . T cells expressing the $\gamma/\delta$ TCR have been shown to play a role in oral tolerance, innate immune response for some tumor cells, and autoimmune disease. It has been reported that $\gamma/\delta$ T cells also play a principal role in antigen presentation.

### Product Details

---

<b>Verified Reactivity</b>	Human, Cynomolgus, Rhesus
<b>Reported Reactivity</b>	African Green, Baboon, Pigtailed Macaque
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PE/Fire™ 700 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ L per million cells in 100 $\mu$ L staining volume or 5 $\mu$ L per 100 $\mu$ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.  * PE/Fire™ 700 has a maximum excitation of 565 nm and a maximum emission of 695 nm.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application Notes</b>	Clone B1 is also known as clone B1.1.  Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections <sup>3</sup> and paraffin-embedded sections <sup>5</sup> , <i>in vitro</i> blocking, and spatial biology (IBEX) <sup>8,9</sup> . The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/ $\mu$ g, Azide-Free, 0.2 $\mu$ m filtered) is recommended for highly sensitive assays (Cat. Nos. 331235 and 331236).
<b>Application References</b>	1. Rodriguez-Gago M, <i>et al.</i> 2001. <i>Transplantation</i> . 72:503. 2. Lehmann FS, <i>et al.</i> 2002. <i>Am. J. Physiol. Gastrointest. Liver. Physiol.</i> 283:G481. (FC) 3. Bordignon M, <i>et al.</i> 2008. <i>Mol. Med. Rep.</i> 1:485. (IHC) 4. Conrad M, <i>et al.</i> 2007. <i>Cytom. Part A</i> 71A:925. (FC) 5. Pollinger B, <i>et al.</i> 2011. <i>J. Immunol.</i> 186:2602. (IHC)
<b>(PubMed link indicates BioLegend citation)</b>	

6. Correia DV, *et al.* 2011. *Blood*. 118:992. (Block)
7. Laurent AJ, *et al.* 2014. *PLoS One*. 9:103683. [PubMed](#)
8. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA*. 117:33455-33465. (SB) [PubMed](#)
9. Radtke AJ, *et al.* 2022. *Nat Protoc*. 17:378-401. (SB) [PubMed](#)

**RRID** AB\_2876638 (BioLegend Cat. No. 331237)  
 AB\_2876638 (BioLegend Cat. No. 331238)

## Antigen Details

<b>Structure</b>	Ig superfamily, associates with CD3 complex
<b>Distribution</b>	T subset in thymus, intestinal epithelium, peripheral lymphoid tissues and peritoneum
<b>Function</b>	Antigen recognition
<b>Ligand/Receptor</b>	Some bacterial or tumor antigens bound MHC class I, CD1 molecule
<b>Cell Type</b>	Epithelial cells, T cells
<b>Biology Area</b>	Adaptive Immunity, Immunology
<b>Molecular Family</b>	TCRs
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Lanier LL, <i>et al.</i> 1987. <i>J. Clin. Immunol.</i> 7:429.</li> <li>2. Spencer J, <i>et al.</i> 1989. <i>Eur. J. Immunol.</i> 19:1335.</li> <li>3. Uyemura K, <i>et al.</i> 1991. <i>J. Exp. Med.</i> 174:683.</li> <li>4. Spada FM, <i>et al.</i> 2000. <i>J. Exp. Med.</i> 191:907.</li> </ol>
<b>Gene ID</b>	<a href="#">6964</a> <a href="#">6965</a>

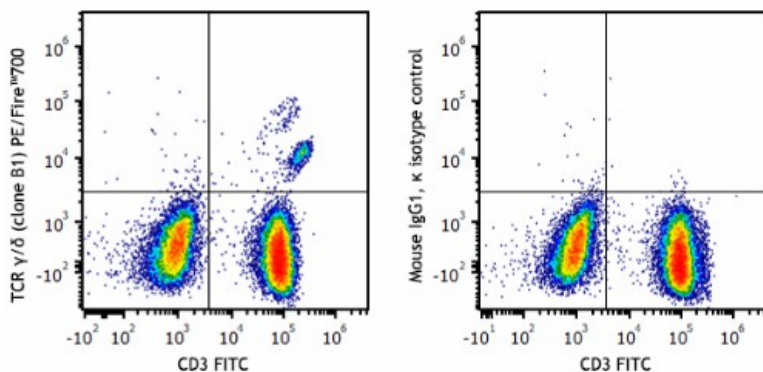
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-human TCR  $\gamma/\delta$ , Biotin anti-human TCR  $\gamma/\delta$ , FITC anti-human TCR  $\gamma/\delta$ , PE anti-human TCR  $\gamma/\delta$ , APC anti-human TCR  $\gamma/\delta$ , Alexa Fluor® 647 anti-human TCR  $\gamma/\delta$ , Brilliant Violet 421™ anti-human TCR  $\gamma/\delta$ , Brilliant Violet 510™ anti-human TCR  $\gamma/\delta$ , PE/Cyanine7 anti-human TCR  $\gamma/\delta$ , PerCP/Cyanine5.5 anti-human TCR  $\gamma/\delta$ , PE/Dazzle™ 594 anti-human TCR  $\gamma/\delta$ , APC/Fire™ 750 anti-human TCR  $\gamma/\delta$ , TotalSeq™-A0139 anti-human TCR  $\gamma/\delta$ , TotalSeq™-C0139 anti-human TCR  $\gamma/\delta$ , TotalSeq™-B0139 anti-human TCR  $\gamma/\delta$ , Ultra-LEAF™ Purified anti-human TCR  $\gamma/\delta$ , PE/Fire™ 700 anti-human TCR  $\gamma/\delta$  Antibody, Alexa Fluor® 660 anti-human TCR  $\gamma/\delta$  Antibody, TotalSeq™-D0139 anti-human TCR  $\gamma/\delta$

## Product Data



Human peripheral blood lymphocytes were stained with anti-human CD3 FITC and anti-human TCR  $\gamma/\delta$  PE/Fire™ 700 (clone B1) (left) or mouse IgG1,  $\kappa$  PE/Fire™ 700 isotype control (right).

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587