

APC/Fire™ 750 anti-human TCR γ/δ Antibody

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| Catalog# / Size | 331227 / 25 tests 331228 / 100 tests |
| Clone | B1 |
| Regulatory Status | RUO |
| Other Names | T cell receptor γ/δ , γ/δ TCR, TCR- γ/δ |
| Isotype | Mouse IgG1, κ |
| 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 is involved in the recognition of certain bacterial, self-CD1 molecule, and tumor antigens bound to MHC class I. The γ/δ 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 γ/δ T cells are CD4 ⁻ /CD8 ⁻ , some are CD8 ⁺ . T cells expressing the γ/δ 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 γ/δ T cells also play a principal role in antigen presentation. |

Product Details

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| Verified Reactivity | Human, Cynomolgus, Rhesus |
| Reported Reactivity | African Green, Baboon, Pigtailed Macaque |
| Antibody Type | Monoclonal |
| Host Species | Mouse |
| Formulation | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA) |
| Preparation | The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions. |
| Concentration | Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.) |
| Storage & Handling | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze. |
| Application | FC - Quality tested |
| 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 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood. * APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm. |
| Application Notes | Clone B1 is also known as clone B1.1. Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections ³ and paraffin-embedded sections ⁵ , <i>in vitro</i> blocking, and spatial biology (IBEX) ^{8,9} . The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for highly sensitive assays (Cat. Nos. 331235 and 331236). |

Application References

(PubMed link indicates BioLegend citation)

- Rodriguez-Gago M, *et al.* 2001. *Transplantation*. 72:503.
- Lehmann FS, *et al.* 2002. *Am. J. Physiol. Gastrointest. Liver. Physiol.* 283:G481. (FC)
- Bordignon M, *et al.* 2008. *Mol. Med. Rep.* 1:485. (IHC)
- Conrad M, *et al.* 2007. *Cytom. Part A* 71A:925. (FC)
- Pollinger B, *et al.* 2011. *J. Immunol.* 186:2602. (IHC)
- Correia DV, *et al.* 2011. *Blood*. 118:992. (Block)
- Laurent AJ, *et al.* 2014. *PLoS One*. 9:103683. [PubMed](#)
- Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA*. 117:33455-33465. (SB) [PubMed](#)
- Radtke AJ, *et al.* 2022. *Nat Protoc*. 17:378-401. (SB) [PubMed](#)

Product Citations

1. Rodda LB, *et al.* 2020. *Cell*. 184(1):169-183.e17. [PubMed](#)
2. Hackstein CP, *et al.* 2022. *Nat Commun*. 13:7472. [PubMed](#)

RRID

AB_2650626 (BioLegend Cat. No. 331227)
AB_2650627 (BioLegend Cat. No. 331228)

Antigen Details

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|---------------------------|---|
| Structure | Ig superfamily, associates with CD3 complex |
| Distribution | T subset in thymus, intestinal epithelium, peripheral lymphoid tissues and peritoneum |
| Function | Antigen recognition |
| Ligand/Receptor | Some bacterial or tumor antigens bound MHC class I, CD1 molecule |
| Cell Type | Epithelial cells, T cells |
| Biology Area | Adaptive Immunity, Immunology |
| Molecular Family | TCRs |
| Antigen References | <ol style="list-style-type: none">1. Lanier LL, <i>et al.</i> 1987. <i>J. Clin. Immunol.</i> 7:429.2. Spencer J, <i>et al.</i> 1989. <i>Eur. J. Immunol.</i> 19:1335.3. Uyemura K, <i>et al.</i> 1991. <i>J. Exp. Med.</i> 174:683.4. Spada FM, <i>et al.</i> 2000. <i>J. Exp. Med.</i> 191:907. |
| Gene ID | 6964 6965 |

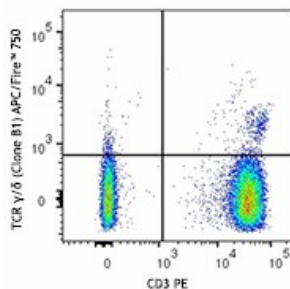
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

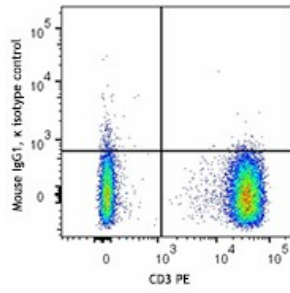
Other Formats

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

Product Data



Human peripheral blood lymphocytes were stained with CD3 PE and TCR γ/δ (clone B1) APC/Fire™ 750 (top) or mouse IgG1, κ APC/Fire™ 750 isotype control (bottom).



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