

Purified anti-human TCR γ/δ Antibody

Catalog# / Size	331202 / 100 μ g
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

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.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested IHC - Reported in the literature, not verified in house
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 ≤ 2.0 μ g per million cells in 100 μ l volume. It is recommended that the reagent be titrated for optimal performance for each application.
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

- Fu J *et al.* 2019. *Cell stem cell*. 24(2):227-239. [PubMed](#)
- Mayassi T, *et al.* 2019. *Cell*. 176:967. [PubMed](#)

3. Arunachalam PS, *et al.* 2021. *Nature*. 596:410. [PubMed](#)
4. Stras SF, *et al.* 2020. *Developmental Cell*. 51(3):357-373.e5.. [PubMed](#)
5. Zhan Y, *et al.* 2021. *JCI Insight*. 6:. [PubMed](#)
6. Hu Y, *et al.* 2022. *Front Oncol*. 12:845765. [PubMed](#)
7. O'Boyle KC, *et al.* 2020. *Methods Mol Biol*. 2111:1. [PubMed](#)
8. Fenton TM, *et al.* 2020. *Immunity*. 52(3):557-570. [PubMed](#)
9. Ardain A, *et al.* 2019. *Nature*. 570:528. [PubMed](#)
10. Ravell JC, *et al.* 2020. *J Clin Invest*. 130:507. [PubMed](#)
11. Chiou SH, *et al.* 2021. *Immunity*. 54:586. [PubMed](#)
12. Albertsson AM, *et al.* 2018. *Am J Pathol*. 188:757. [PubMed](#)

RRID AB_1089222 (BioLegend Cat. No. 331202)

Antigen Details

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

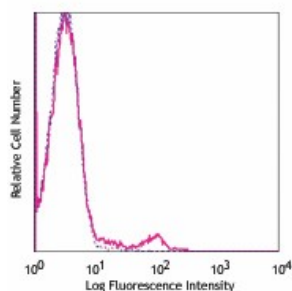
Related Protocols

[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 stained with purified B1, followed by anti-mouse IgG FITC

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