

Biotin anti-human TCR γ/δ Antibody

Catalog# / Size	331206 / 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, and conjugated with biotin under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
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	<ol style="list-style-type: none"> Rodriguez-Gago M, <i>et al.</i> 2001. <i>Transplantation</i>. 72:503. Lehmann FS, <i>et al.</i> 2002. <i>Am. J. Physiol. Gastrointest. Liver. Physiol.</i> 283:G481. (FC) Bordignon M, <i>et al.</i> 2008. <i>Mol. Med. Rep.</i> 1:485. (IHC) Conrad M, <i>et al.</i> 2007. <i>Cytom. Part A</i> 71A:925. (FC) Pollinger B, <i>et al.</i> 2011. <i>J. Immunol.</i> 186:2602. (IHC) Correia DV, <i>et al.</i> 2011. <i>Blood</i>. 118:992. (Block) Laurent AJ, <i>et al.</i> 2014. <i>PLoS One</i>. 9:103683. PubMed Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA</i>. 117:33455-33465. (SB) PubMed Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) PubMed
Product Citations	<ol style="list-style-type: none"> Ye Y, <i>et al.</i> 2022. <i>Nat Commun.</i> 13:6458. PubMed

(PubMed link indicates BioLegend citation)

2. He J, *et al.* 2020. *Cell Reports*. 29(9):2718-2730.e6.. [PubMed](#)
3. Omer OS, *et al.* 2020. *Methods Mol Biol*. 2121:199. [PubMed](#)

RRID AB_1089216 (BioLegend Cat. No. 331206)

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

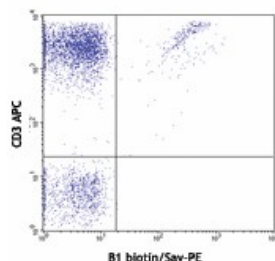
Related Protocols

[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 CD3 APC and biotinylated B1, followed by Sav-PE

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