

Purified anti-mouse CD45 (Maxpar[®] Ready) Antibody

Catalog# / Size	103141 / 100 µg
Clone	30-F11
Regulatory Status	RUO
Other Names	T200, Ly-5, LCA
Isotype	Rat IgG2b, κ
Description	CD45 is a 180-240 kD glycoprotein also known as the leukocyte common antigen (LCA), T200, or Ly-5. It is a member of the protein tyrosine phosphatase (PTP) family, expressed on all hematopoietic cells except mature erythrocytes and platelets. There are different isoforms of CD45 that arise from variable splicing of exons 4, 5, and 6, which encode A, B, and C determinants, respectively. CD45 plays a key role in TCR and BCR signal transduction. These isoforms are very specific to the activation and maturation state of the cell as well as cell type. The primary ligands for CD45 are galectin-1, CD2, CD3, CD4, TCR, CD22, and Thy-1.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse thymus or spleen
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and EDTA.
Preparation	The antibody was purified by affinity chromatography.
Concentration	1.0 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested CyTOF[®] - Verified
Recommended Usage	This product is suitable for use with the Maxpar[®] Metal Labeling Kits . For metal labeling using Maxpar [®] Ready antibodies, proceed directly to the step to Partially Reduce the Antibody by adding 100 µl of Maxpar [®] Ready antibody to 100 µl of 4 mM TCEP-R in a 50 kDa filter and continue with the protocol. Always refer to the latest version of Maxpar [®] User Guide when conjugating Maxpar [®] Ready antibodies.
Application Notes	Clone 30-F11 reacts with all isoforms and both CD45.1 and CD45.2 alloantigens of CD45. Additional reported applications (for relevant formats) include: immunoprecipitation ³ , complement-dependent cytotoxicity ^{1,5} , immunohistochemistry (acetone-fixed frozen sections, zinc-fixed paraffin-embedded sections and formalin-fixed paraffin-embedded sections) ^{4,6} , Western blotting ⁷ , and spatial biology (IBEX) ^{10,11} . The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 103163 and 103164).
Additional Product Notes	Maxpar [®] is a registered trademark of Standard BioTools Inc.
Application References	<ol style="list-style-type: none"> Podd BS, <i>et al.</i> 2006. <i>J. Immunol.</i> 176:6532. (FC, CMCD) PubMed Haynes NM, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:5099. (FC) Ledbetter JA, <i>et al.</i> 1979. <i>Immunol. Rev.</i> 47:63. (IP) Simon DI, <i>et al.</i> 2000. <i>J. Clin. Invest.</i> 105:293. (IHC) Seaman WE. 1983. <i>J. Immunol.</i> 130:1713. (CMCD) Cornet A, <i>et al.</i> 2001. <i>P. Natl. Acad. Sci. USA</i> 98:13306. (IHC) Tsuboi S and Fukuda M. 1998. <i>J. Biol. Chem.</i> 273:30680. (WB) PubMed Liu F, <i>et al.</i> 2012. <i>Blood.</i> 119:3295. PubMed Pelletier AN, <i>et al.</i> 2012. <i>J. Immunol.</i> 188:5561. PubMed Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci U S A.</i> 117:33455-65. (SB) PubMed

11. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Wroblewska A *et al.* 2018. *Cell.* 175(4):1141-1155 . [PubMed](#)

RRID

AB_2562800 (BioLegend Cat. No. 103141)

Antigen Details

Structure	Protein tyrosine phosphatase (PTP) family, 180-240 kD
Distribution	All hematopoietic cells except mature erythrocytes and platelets
Function	Phosphatase, T and B cell activation
Ligand/Receptor	Galectin-1, CD2, CD3, CD4, TCR, CD22, Thy-1
Cell Type	B cells, Dendritic cells, Mesenchymal Stem Cells, Tregs
Biology Area	Cell Biology, Immunology, Inhibitory Molecules, Innate Immunity, Neuroscience, Neuroscience Cell Markers, Stem Cells
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none">1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.2. Trowbridge IS, <i>et al.</i> 1993. <i>Annu. Rev. Immunol.</i> 12:85.3. Kishihara K, <i>et al.</i> 1993. <i>Cell</i> 74:143.4. Pulido R, <i>et al.</i> 1988. <i>J. Immunol.</i> 140:3851.
Gene ID	19264

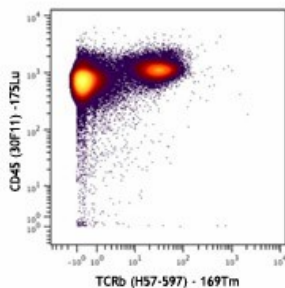
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-mouse CD45, Biotin anti-mouse CD45, FITC anti-mouse CD45, PE anti-mouse CD45, PE/Cyanine5 anti-mouse CD45, Purified anti-mouse CD45, PE/Cyanine7 anti-mouse CD45, APC/Cyanine7 anti-mouse CD45, Alexa Fluor® 488 anti-mouse CD45, Alexa Fluor® 647 anti-mouse CD45, Pacific Blue™ anti-mouse CD45, Alexa Fluor® 700 anti-mouse CD45, PerCP/Cyanine5.5 anti-mouse CD45, PerCP anti-mouse CD45, Alexa Fluor® 594 anti-mouse CD45, Brilliant Violet 421™ anti-mouse CD45, Brilliant Violet 570™ anti-mouse CD45, Brilliant Violet 510™ anti-mouse CD45, Brilliant Violet 605™ anti-mouse CD45, Purified anti-mouse CD45 (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse CD45, Brilliant Violet 711™ anti-mouse CD45, Brilliant Violet 785™ anti-mouse CD45, Brilliant Violet 650™ anti-mouse CD45, APC/Fire™ 750 anti-mouse CD45, Brilliant Violet 750™ anti-mouse CD45, TotalSeq™-A0096 anti-mouse CD45, TotalSeq™-B0096 anti-mouse CD45, Ultra-LEAF™ Purified anti-mouse CD45, Spark Blue™ 550 anti-mouse CD45, Spark NIR™ 685 anti-mouse CD45, TotalSeq™-C0096 anti-mouse CD45, Spark YG™ 570 anti-mouse CD45, PE/Fire™ 640 anti-mouse CD45, APC/Fire™ 810 anti-mouse CD45, PE/Fire™ 700 anti-mouse CD45, Spark Violet™ 538 anti-mouse CD45, Spark YG™ 593 anti-mouse CD45, Spark Blue™ 574 anti-mouse CD45 Antibody

Product Data



Mouse splenocytes stained with 175Lu-anti-CD45 (30-F11) and 169Tm-anti-TCRb (H57-597). Data provided by DVS Sciences.

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