

PerCP/Cyanine5.5 anti-mouse CD45 Antibody

Catalog# / Size	147705 / 25 µg 147706 / 100 µg
Clone	I3/2.3
Regulatory Status	RUO
Other Names	T200, Ly-5, LCA
Isotype	Rat IgG2b, λ
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 alternative 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 lymphoma cell line
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.
Concentration	0.2 mg/ml
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 =0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
Excitation Laser	Blue Laser (488 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of paraffin embedded sections ¹ and frozen tissue sections ² .
Application References	1. Kliment C, <i>et al.</i> 2009. <i>J. Mol. Cell Cardiol.</i> 47:730. (IHC) 2. Reynolds JM, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:313. (IHC)
(PubMed link indicates BioLegend citation)	

Product Citations

1. Xin B, *et al.* 2022. Hepatology. 76:630. [PubMed](#)
2. Liang Y, *et al.* 2022. Dev Cell. 57:398. [PubMed](#)
3. Changsheng H, *et al.* 2023. Sci Adv. 9:eade4186. [PubMed](#)
4. Kato T, *et al.* 2019. Front Immunol. 10:2021. [PubMed](#)
5. Chen WS, *et al.* 2021. Cell Rep. 37:109974. [PubMed](#)
6. Tsuchiya N, *et al.* 2020. Cell Reports. 29(1):162-175.e9.. [PubMed](#)
7. Donley DW, *et al.* 2021. PLOS ONE. 16(5):e0250606. [PubMed](#)
8. Lu P, *et al.* 2021. Nat Commun. 12:1042. [PubMed](#)

RRID

AB_2563537 (BioLegend Cat. No. 147705)
AB_2563538 (BioLegend Cat. No. 147706)

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, Mesenchymal Stem Cells
Biology Area	Cell Biology, Immunology, Inhibitory Molecules, Neuroscience, Neuroscience Cell Markers, Stem Cells
Molecular Family	CD Molecules, TCRs
Antigen References	<ol style="list-style-type: none">1. Barclay A, <i>et al.</i> 1997. The Leukocyte Antigen FactsBook Academic Press.2. Trowbridge IS and Thomas ML. 1994. Annu. Rev. Immunol. 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

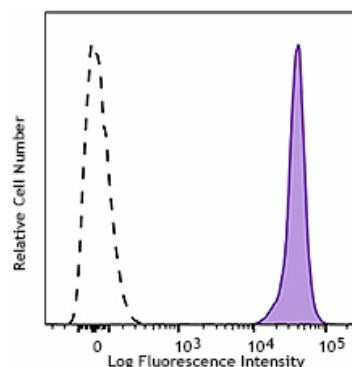
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-mouse CD45, PerCP/Cyanine5.5 anti-mouse CD45, PE/Cyanine7 anti-mouse CD45, APC anti-mouse CD45, FITC anti-mouse CD45, PE anti-mouse CD45, APC/Fire™ 750 anti-mouse CD45, Alexa Fluor® 700 anti-mouse CD45, APC/Cyanine7 anti-mouse CD45 Antibody, Brilliant Violet 421™ anti-mouse CD45, Brilliant Violet 510™ anti-mouse CD45, Brilliant Violet 605™ anti-mouse CD45

Product Data



C57BL/6 splenocytes were stained with CD45 (clone 13/2.3) PerCP/Cyanine5.5 (filled histogram) or Rrat IgG2b PerCP/Cyanine5.5 isotype control (open histogram).

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