

Purified anti-human CD1c Antibody

Catalog# / Size	331501 / 25 µg 331502 / 100 µg
Clone	L161
Regulatory Status	RUO
Workshop	V T-CD01.18
Other Names	R7, M241, BDCA-1
Isotype	Mouse IgG1, κ
Description	CD1c, also known as R7 or M241, is a 43 kD member of the five CD1 antigens (CD1a-e) in humans. The CD1 molecules are type I glycoprotein with structural similarities to MHC class I and are non-covalently associated with β ₂ -microglobulin, belonging to the Ig superfamily. CD1c is expressed on cortical thymocytes, Langerhans cells, dendritic cells, and a subset of B cells. It has been reported that CD1c is also expressed on mature T cells in a tightly regulated manner. CD1c is involved in antigen-presentation of glycolipids. It may also act in T cells as an immune regulatory molecule.

Product Details

Verified Reactivity	Human, African Green, Baboon, Cynomolgus, Rhesus
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-F, IHC-P - 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 ≤ 0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining on frozen tissue ^{4,5} , formalin-fixed paraffin-embedded immunohistochemical staining ⁶ , and spatial biology (IBEX) ^{7,8} .
Application References	<ol style="list-style-type: none"> 1. del C Salamone M, <i>et al.</i> 2001. <i>J Leukoc Biol.</i> 70:567. 2. de Fraissinette A, <i>et al.</i> 1988. <i>Exp Hematol.</i> 16:764. 3. Li D, <i>et al.</i> 2012. <i>J Exp Med.</i> 209:109. PubMed 4. Xu C, <i>et al.</i> 2010. <i>Am J Hematol.</i> 85:539 (IHC-F) 5. Gerlini G, <i>et al.</i> 2001. <i>J Invest Dermatol.</i> 117:576 (IHC-F) 6. Poposki J, <i>et al.</i> 2016. <i>Clin Exp Allergy</i> 45:384 (IHC-P) PubMed 7. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA.</i> 117:33455-33465. (SB) PubMed 8. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) PubMed
Product Citations	<ol style="list-style-type: none"> 1. Sander J <i>et al.</i> 2017. <i>Immunity.</i> 47(6):1051-1066 . PubMed 2. Gide TN, <i>et al.</i> 2019. <i>Cancer Cell.</i> 35:238. PubMed 3. Lavin Y <i>et al.</i> 2017. <i>Cell.</i> 169(4):750-765 . PubMed 4. Alcántara-Hernández M <i>et al.</i> 2017. <i>Immunity.</i> 47(6):1037-1050 . PubMed 5. Guo T, <i>et al.</i> 2018. <i>J Immunol.</i> 200:500. PubMed 6. Kuzmina NA, <i>et al.</i> 2018. <i>Cell Rep.</i> 24:1802. PubMed

(PubMed link indicates BioLegend citation)

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RRID AB_1088996 (BioLegend Cat. No. 331501)
 AB_1088995 (BioLegend Cat. No. 331502)

Antigen Details

Structure	43 kD, Ig superfamily, MHC I-like molecule, associates with β 2-microglobulin
Distribution	B cell subset, cortical thymocytes, dendritic cells, and Langerhans cells
Function	Presents lipid antigen to CD1c-restricted T cells
Ligand/Receptor	CD1c-restricted TCR
Cell Type	B cells, Dendritic cells, Langerhans cells, Thymocytes
Biology Area	Immunology
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none"> 1. Fainboim LM and del C. Salamone. 2002. <i>J. Biol. Reg. Homeos. Ag.</i> 16:125. 2. M. del Salamone C, <i>et al.</i> 2001. <i>J. Leukocyte Biol.</i> 70:567. 3. Zola H, <i>et al.</i> Eds. 2007. <i>Leukocyte and Stromal Cell Molecules: The CD Markers.</i> P42.
Gene ID	911

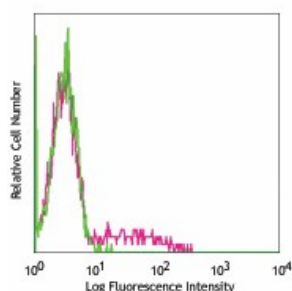
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE/Dazzle™ 594 anti-human CD1c, Brilliant Violet 510™ anti-human CD1c, Brilliant Violet 605™ anti-human CD1c, Brilliant Violet 711™ anti-human CD1c, TotalSeq™-A0160 anti-human CD1c, Brilliant Violet 650™ anti-human CD1c, Brilliant Violet 785™ anti-human CD1c, APC/Fire™ 750 anti-human CD1c, TotalSeq™-C0160 anti-human CD1c, TotalSeq™-B0160 anti-human CD1c, TotalSeq™-D0160 anti-human CD1c, PE/Cyanine5 anti-human CD1c, Purified anti-human CD1c, Biotin anti-human CD1c, PE anti-human CD1c, Pacific Blue™ anti-human CD1c, Alexa Fluor® 647 anti-human CD1c, PerCP anti-human CD1c, PerCP/Cyanine5.5 anti-human CD1c, PE/Cyanine7 anti-human CD1c, FITC anti-human CD1c, APC/Cyanine7 anti-human CD1c, Alexa Fluor® 488 anti-human CD1c, APC anti-human CD1c, Brilliant Violet 421™ anti-human CD1c, Alexa Fluor® 700 anti-human CD1c

Product Data



Human peripheral blood lymphocytes stained with purified L161, followed by anti-mouse IgG FITC

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