

Alexa Fluor® 488 anti-human CD1c Antibody

Catalog# / Size	331521 / 25 tests 331522 / 100 tests
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
Reported Reactivity	African Green, Baboon, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Blue Laser (488 nm)
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	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)
(PubMed link indicates BioLegend citation)	

6. Poposki J, *et al.* 2016. *Clin Exp Allergy* 45:384 (IHC-P) [PubMed](#)
7. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA*. 117:33455-33465. (SB) [PubMed](#)
8. Radtke AJ, *et al.* 2022. *Nat Protoc*. 17:378-401. (SB) [PubMed](#)

Product Citations

1. Weisberg SP, *et al.* 2020. *Cell Reports*. 29(12):3916-3932.e5.. [PubMed](#)
2. Moon HG *et al.* 2018. *Immunity*. 49(2):275-287 . [PubMed](#)

RRID

AB_10719095 (BioLegend Cat. No. 331521)
 AB_10720182 (BioLegend Cat. No. 331522)

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

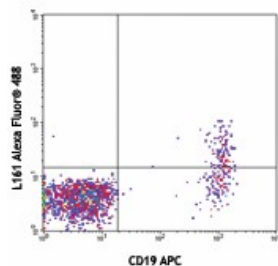
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

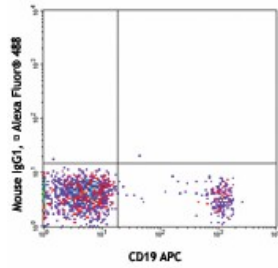
Other Formats

PerCP 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/Cyanine5.5 anti-human CD1c, Brilliant Violet 421™ anti-human CD1c, PE/Cyanine7 anti-human CD1c, FITC anti-human CD1c, APC/Cyanine7 anti-human CD1c, APC anti-human CD1c, Alexa Fluor® 488 anti-human CD1c, Alexa Fluor® 700 anti-human CD1c, 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

Product Data



Human peripheral blood lymphocytes were stained with CD19 APC and CD1c (clone L161) Alexa Fluor® 488 (top) or Mouse IgG1, κ Alexa Fluor® 488 isotype control (bottom).



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