

## Alexa Fluor® 488 anti-human CD1c Antibody

<b>Catalog# / Size</b>	331521 / 25 tests 331522 / 100 tests
<b>Clone</b>	L161
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	V T-CD01.18
<b>Other Names</b>	R7, M241, BDCA-1
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	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 <sub>2</sub> -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

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon, Cynomolgus, Rhesus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . 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.  <a href="#">View full statement regarding label licenses</a>
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunohistochemical staining on frozen tissue <sup>4,5</sup> , formalin-fixed paraffin-embedded immunohistochemical staining <sup>6</sup> , and spatial biology (IBEX) <sup>7,8</sup> .
<b>Application References</b>	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. <a href="#">PubMed</a> 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)
<b>(PubMed link indicates BioLegend citation)</b>	

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

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

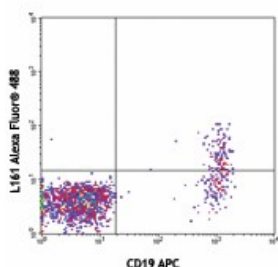
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

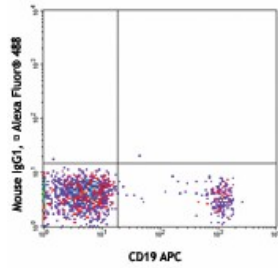
## Other Formats

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,  $\kappa$  Alexa Fluor® 488 isotype control (bottom).



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