

## Purified anti-human CD1c Antibody

<b>Catalog# / Size</b>	331501 / 25 µg 331502 / 100 µg
<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.
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C.
<b>Application</b>	<a href="#">FC - Quality tested</a> <a href="#">IHC-F, IHC-P - Reported in the literature, not verified in house</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 ≤ 0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<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>	<ol style="list-style-type: none"> <li>del C Salamone M, <i>et al.</i> 2001. <i>J Leukoc Biol.</i> 70:567.</li> <li>de Fraissinette A, <i>et al.</i> 1988. <i>Exp Hematol.</i> 16:764.</li> <li>Li D, <i>et al.</i> 2012. <i>J Exp Med.</i> 209:109. <a href="#">PubMed</a></li> <li>Xu C, <i>et al.</i> 2010. <i>Am J Hematol.</i> 85:539 (IHC-F)</li> <li>Gerlini G, <i>et al.</i> 2001. <i>J Invest Dermatol.</i> 117:576 (IHC-F)</li> <li>Poposki J, <i>et al.</i> 2016. <i>Clin Exp Allergy</i> 45:384 (IHC-P) <a href="#">PubMed</a></li> <li>Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA.</i> 117:33455-33465. (SB) <a href="#">PubMed</a></li> <li>Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) <a href="#">PubMed</a></li> </ol>
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>Dhariwala MO, <i>et al.</i> 2020. <i>Cell Rep Med.</i> 1:100132. <a href="#">PubMed</a></li> <li>Melo-Gonzalez F, <i>et al.</i> 2018. <i>J Biol Chem.</i> 293:8543. <a href="#">PubMed</a></li> <li>Alcántara-Hernández M <i>et al.</i> 2017. <i>Immunity.</i> 47(6):1037-1050. <a href="#">PubMed</a></li> <li>Friebel E, <i>et al.</i> 2020. <i>Cell.</i> 181(7):1626-1642.e20. <a href="#">PubMed</a></li> </ol>

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**RRID** AB\_1088996 (BioLegend Cat. No. 331501)  
 AB\_1088995 (BioLegend Cat. No. 331502)

## Antigen Details

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<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

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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

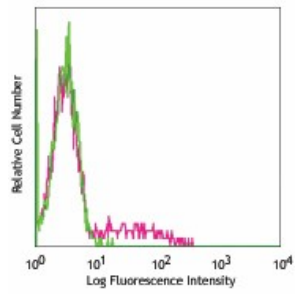
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PerCP anti-human CD1c, Purified anti-human CD1c, Biotin anti-human CD1c, PE anti-human CD1c, Pacific Blue™ anti-human CD1c, Alexa Fluor® 647 anti-human CD1c, PerCP/Cyanine5.5 anti-human CD1c, Brilliant Violet 421™ anti-human CD1c, PE/Cyanine7 anti-human 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

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



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