

## Biotin anti-mouse CD31 Antibody

<b>Catalog# / Size</b>	102404 / 500 µg
<b>Clone</b>	390
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	PECAM-1, EndoCAM
<b>Isotype</b>	Rat IgG2a, κ
<b>Description</b>	CD31 is a 130-140 kD glycoprotein, also known as platelet endothelial cell adhesion molecule (PECAM-1) and EndoCAM. It is a member of the Ig superfamily, expressed on endothelial cells, platelets, granulocytes, monocytes/macrophages, dendritic cells, and T and B cell subsets, and is critical for cell-cell interactions. The primary ligands for CD31 have been reported to be CD38 and the vitronectin receptor (α <sub>v</sub> β <sub>3</sub> integrin, CD51/CD61). Other reported functions of CD31 are neutrophil emigration to sites of inflammation and angiogenesis.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	C3H/HeJ mouse hematopoietic progenitor cell line 3
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions.
<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>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 ≤ 0.25 µg per 10 <sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	Anti-mouse CD31 clones 390 and MEC13.3 bind to their respective non-overlapping epitopes in IgD2 of CD31. <sup>8</sup> Additional reported applications (for the relevant formats) include: immunoprecipitation <sup>1</sup> , <i>in vitro</i> and <i>in vivo</i> blocking of CD31-mediated cell-cell interactions <sup>1-4</sup> , and immunohistochemical staining <sup>5,6,7</sup> of acetone-fixed frozen sections and zinc-fixed paraffin-embedded sections. <b>Special Note:</b> This antibody is not recommended for formalin-fixed paraffin-embedded sections. The LEAF™ purified antibody (Endotoxin < 0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 102412).
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Baldwin HS, <i>et al.</i> 1994. <i>Development</i> 120:2539. (IP, Block)</li> <li>2. DeLisser HM, <i>et al.</i> 1997. <i>Am. J. Pathol.</i> 151:671. (Block)</li> <li>3. Rosenblum WI, <i>et al.</i> 1996. <i>Stroke</i> 27:709. (Block)</li> <li>4. Iguchi A, <i>et al.</i> 1997. <i>Cell Struct. Funct.</i> 22:357. (Block)</li> <li>5. Wyder L, <i>et al.</i> 2000. <i>Cancer Res.</i> 60:4682. (IHC)</li> <li>6. Wiewrodt R, <i>et al.</i> 2002. <i>Blood</i> 99:912. (IHC)</li> <li>7. McQualter JL, <i>et al.</i> 2009. <i>Stem Cells.</i> 27:623. (IHC) <a href="#">PubMed</a></li> <li>8. Chacko AM, <i>et al.</i> 2012. <i>PLoS One</i> 7:e34958.</li> <li>9. Greineder CF, <i>et al.</i> 2013. <i>PLoS One.</i> 14:80110. <a href="#">PubMed</a></li> </ol>
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Gordan S, <i>et al.</i> 2020. <i>Cell Reports.</i> 29(10):3033-3046.e4.. <a href="#">PubMed</a></li> <li>2. Tarban N, <i>et al.</i> 2022. <i>Cells.</i> 11:. <a href="#">PubMed</a></li> <li>3. Larsen SB, <i>et al.</i> 2021. <i>Cell Stem Cell.</i> .: <a href="#">PubMed</a></li> </ol>

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**RRID** AB\_312899 (BioLegend Cat. No. 102404)

## Antigen Details

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<b>Structure</b>	Ig superfamily, 130-140 kD
<b>Distribution</b>	Endothelial cells, platelets, granulocytes, monocytes/macrophages, dendritic cells, T and B cell subsets
<b>Function</b>	Adhesion
<b>Ligand/Receptor</b>	CD38, $\alpha$ v/ $\beta$ 3 integrin
<b>Cell Type</b>	B cells, Dendritic cells, Endothelial cells, Granulocytes, Macrophages, Monocytes, Neutrophils, Platelets, T cells
<b>Biology Area</b>	Angiogenesis, Cell Adhesion, Cell Biology, Immunology, Neuroinflammation, Neuroscience
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Barclay AN, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.</li> <li>2. DeLisser HM, <i>et al.</i> 1994. <i>Immunol. Today</i> 15:490.</li> <li>3. Newman PJ, <i>et al.</i> 1990. <i>Science</i> 247:1219.</li> </ol>
<b>Gene ID</b>	<a href="#">18613</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

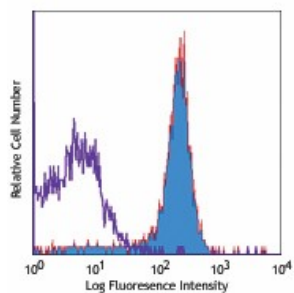
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APC anti-mouse CD31, Biotin anti-mouse CD31, FITC anti-mouse CD31, PE anti-mouse CD31, Purified anti-mouse CD31, Alexa Fluor® 488 anti-mouse CD31, Alexa Fluor® 647 anti-mouse CD31, PE/Cyanine7 anti-mouse CD31, PerCP/Cyanine5.5 anti-mouse CD31, Pacific Blue™ anti-mouse CD31, Brilliant Violet 421™ anti-mouse CD31, Brilliant Violet 605™ anti-mouse CD31, Purified anti-mouse CD31 (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse CD31, Alexa Fluor® 594 anti-mouse CD31, APC/Fire™ 750 anti-mouse CD31, Brilliant Violet 785™ anti-mouse CD31, TotalSeq™-A0904 anti-mouse CD31, TotalSeq™-C0904 anti-mouse CD31, Alexa Fluor® 700 anti-mouse CD31, APC/Cyanine7 anti-mouse CD31, Ultra-LEAF™ Purified anti-mouse CD31, Brilliant Violet 711™ anti-mouse CD31, Spark YG™ 570 anti-mouse CD31, TotalSeq™-B0904 anti-mouse CD31 Antibody

## Product Data

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C57BL/6 mouse splenocytes stained with biotinylated 390, followed by Sav-PE



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