

Purified anti-mouse CD31 Antibody

Catalog# / Size	102401 / 50 µg 102402 / 500 µg
Clone	390
Regulatory Status	RUO
Other Names	PECAM-1, EndoCAM
Isotype	Rat IgG2a, κ
Description	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 _v β ₃ integrin, CD51/CD61). Other reported functions of CD31 are neutrophil emigration to sites of inflammation and angiogenesis.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	C3H/HeJ mouse hematopoietic progenitor cell line 3
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, IP - 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 ≤1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Anti-mouse CD31 clones 390 and MEC13.3 bind to their respective non-overlapping epitopes in IgD2 of CD31. ⁸ Additional reported applications (for the relevant formats) include: immunoprecipitation ¹ , <i>in vitro</i> and <i>in vivo</i> blocking of CD31-mediated cell-cell interactions ¹⁻⁴ , and immunohistochemical staining ^{5,6,7} of acetone-fixed frozen sections and zinc-fixed paraffin-embedded sections. Special Note: 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).
Application References	<ol style="list-style-type: none"> 1. Baldwin HS, <i>et al.</i> 1994. <i>Development</i> 120:2539. (IP, Block) 2. DeLisser HM, <i>et al.</i> 1997. <i>Am. J. Pathol.</i> 151:671. (Block) 3. Rosenblum WL, <i>et al.</i> 1996. <i>Stroke</i> 27:709. (Block) 4. Iguchi A, <i>et al.</i> 1997. <i>Cell Struct. Funct.</i> 22:357. (Block) 5. Wyder L, <i>et al.</i> 2000. <i>Cancer Res.</i> 60:4682. (IHC) 6. Wiewrodt R, <i>et al.</i> 2002. <i>Blood</i> 99:912. (IHC) 7. McQualter JL, <i>et al.</i> 2009. <i>Stem Cells.</i> 27:623. (IHC) PubMed 8. Chacko AM, <i>et al.</i> 2012. <i>PLoS One</i> 7:e34958. 9. Greineder CF, <i>et al.</i> 2013. <i>PLoS One.</i> 14:80110. PubMed
(PubMed link indicates BioLegend citation)	

Product Citations

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RRID AB_312896 (BioLegend Cat. No. 102401)
 AB_312897 (BioLegend Cat. No. 102402)

Antigen Details

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

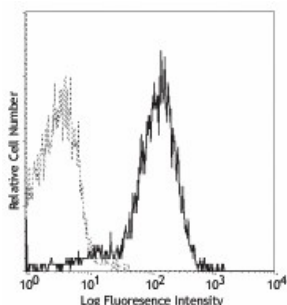
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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



C57BL/6 splenocytes stained with 390 PE

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