

TotalSeq™-C0904 anti-mouse CD31 Antibody

Catalog# / Size	102441 / 10 µg
Clone	390
Regulatory Status	RUO
Other Names	PECAM-1, EndoCAM
Isotype	Rat IgG2a, κ
Barcode Sequence	GCTGTAGTATCATGT
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 and 1 mM EDTA.
Preparation	The antibody was purified by chromatography and conjugated with TotalSeq™-C oligomer under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	PG - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis and the oligomer sequence is confirmed by sequencing. TotalSeq™-C antibodies are compatible with 10x Genomics Chromium Single Cell Immune Profiling Solution.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
Application Notes	<p>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: immunoprecipitation¹, <i>in vitro</i> and <i>in vivo</i> blocking of CD31-mediated cell-cell interactions¹⁻⁴, 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).</p>
Additional Product Notes	TotalSeq™ reagents are designed to profile protein levels at a single cell level following an

optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. [10x Genomics Chromium System and Reagents](#)) and sequencer (e.g. Illumina analyzers) are required. Please contact [technical support](#) for more information, or visit [biolegend.com/totalseq](#).

The barcode flanking sequences are CGGAGATGTGTATAAGAGACAGNNNNNNNNNN (PCR handle), and NNNNNNNNNCCCATATAAGA*A*A (capture sequence). N represents either randomly selected A, C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

Application References

1. Baldwin HS, *et al.* 1994. *Development* 120:2539. (IP, Block)
2. DeLisser HM, *et al.* 1997. *Am. J. Pathol.* 151:671. (Block)
3. Rosenblum WI, *et al.* 1996. *Stroke* 27:709. (Block)
4. Iguchi A, *et al.* 1997. *Cell Struct. Funct.* 22:357. (Block)
5. Wyder L, *et al.* 2000. *Cancer Res.* 60:4682. (IHC)
6. Wiewrodt R, *et al.* 2002. *Blood* 99:912. (IHC)
7. McQualter JL, *et al.* 2009. *Stem Cells.* 27:623. (IHC) [PubMed](#)
8. Chacko AM, *et al.* 2012. *PLoS One* 7:e34958.
9. Greineder CF, *et al.* 2013. *PLoS One.* 14:80110. [PubMed](#)

RRID AB_2813929 (BioLegend Cat. No. 102441)

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

[TotalSeq™-B or -C with 10x Feature Barcoding Technology](#)

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

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