

# CD31 (PECAM-1) Monoclonal Antibody (WM-59 (WM59)), Super Bright™ 645, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	WM-59 (WM59)
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2717093

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	3 Publications
Immunocytochemistry (ICC/IF)	-	3 Publications
Flow Cytometry (Flow)	5 µL (0.06 µg)/test	14 Publications

## Product Specific Information

**Description:** The WM59 monoclonal antibody reacts with human CD31, also known as platelet-endothelial cell adhesion molecule-1 (PECAM-1) and gpIIa. This 130-140 kDa surface protein is expressed by endothelial cells and at low levels on leukocytes and platelets. It has been reported that CD38 binds to CD31. Homotypic interaction of CD31 is important in adhesion, cell-cell and cell-matrix interaction, and signal transduction.

**Applications Reported:** This WM/59 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This WM/59 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at less than or equal to 5 µL (0.06 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells /test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet

for Super Bright Staining Buffer for more information.

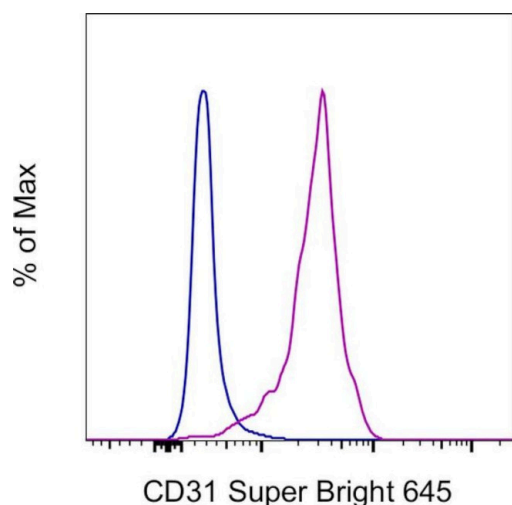
**Light sensitivity:** This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

**Fixation:** Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

**Excitation:** 405 nm; **Emission:** 645 nm; **Laser:** Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For CD31 (PECAM-1) Monoclonal Antibody (WM-59 (WM59)), Super Bright™ 645, eBioscience™



### CD31 (PECAM-1) Antibody (64-0319-42) in Flow

Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control Super Bright 645 (Product # 64-4714-82) (blue histogram) or Anti-Human CD31 (PECAM-1) Super Bright 645 (purple histogram). Cells in the monocyte gate were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## 20 References

### Immunohistochemistry (3)

The Journal of experimental medicine

#### Simultaneously targeting cancer-associated fibroblasts and angiogenic vessel as a treatment for TNBC.

"Published figure using CD31 (PECAM-1) monoclonal antibody (Product # 64-0319-42) in Immunocytochemistry"

Authors: Sharma M, Turaga RC, Yuan Y, Satyanarayana G, Mishra F, Bian Z, Liu W, Sun L, Yang J, Liu ZR

Year  
2021

Science advances

#### Injectable hydrogel with MSNs/microRNA-21-5p delivery enables both immunomodification and enhanced angiogenesis for myocardial infarction therapy in pigs.

"Published figure using CD31 (PECAM-1) monoclonal antibody (Product # 64-0319-42) in Flow Cytometry"

Authors: Li Y, Chen X, Jin R, Chen L, Dang M, Cao H, Dong Y, Cai B, Bai G, Gooding JJ, Liu S, Zou D, Zhang Z, Yang C

Year  
2021

[View more IHC references on thermofisher.com](#)

### Immunocytochemistry (3)

Kidney research and clinical practice

#### Modeling of endothelial cell dysfunction using human induced pluripotent stem cells derived from patients with end-stage renal disease.

"Published figure using CD31 (PECAM-1) monoclonal antibody (Product # 64-0319-42) in Immunocytochemistry"

Authors: Kim KW, Shin YJ, Kim BM, Cui S, Ko EJ, Lim SW, Yang CW, Chung BH

Year  
2021

Immunity

#### Autophagy modulates endothelial junctions to restrain neutrophil diapedesis during inflammation.

"Published figure using CD31 (PECAM-1) monoclonal antibody (Product # 64-0319-42) in Immunocytochemistry"

Authors: Reglero-Real N, Pérez-Gutiérrez L, Yoshimura A, Rolas L, Garrido-Mesa J, Barkaway A, Pickworth C, Saleeb RS, Gonzalez-Nuñez M, Austin-Williams SN, Cooper D, Vázquez-Martínez L, Fu T, De Rossi G, Golding M, Voisin MB, Boulanger CM, Kubota Y, Muller WA, Tooze SA, Nightingale TD, Collinson L, Perretti M, Aksoy E, Nourshargh S

Year  
2021

[View more ICC/IF references on thermofisher.com](#)

### More applications with references on thermofisher.com

## Flow (14)

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