

# CD144 (VE-cadherin) Monoclonal Antibody (eBioBV13 (BV13)), Super Bright™ 600, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), Super Bright™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioBV13 (BV13)
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
Form	Liquid
Concentration	0.2 mg/mL
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_2744842

Applications	Tested Dilution	Publications
Western Blot (WB)	-	1 Publication
Immunohistochemistry (IHC)	-	2 Publications
Immunocytochemistry (ICC/IF)	-	4 Publications
Flow Cytometry (Flow)	1 µg/test	3 Publications

## Product Specific Information

**Description:** The eBioBV13 (BV13) monoclonal antibody reacts with mouse VE-Cadherin (CD144). VE-Cadherin is a 120 kDa member of the type II Cadherin family, characterized by the presence of 5 extracellular cadherin domains (ECD), and anchored to the actin cytoskeleton through their cytoplasmic tail. VE-Cadherin mediates homophilic adhesion between neighbouring endothelial cells and is localized within specialized structures at cell-cell contacts, called adherens junctions. VE-Cadherin is expressed constitutively throughout the entire vasculature, and is required for numerous endothelial cell functions including migration, survival, contact-dependent growth inhibition and endothelial cell assembly into tubular structures. Furthermore, it is thought that VE-Cadherin+CD45- cells from the yolk sac or aorta-gonad-mesonephros (AGM) have the potential to give rise to hematopoietic cells.

**Applications Reported:** This eBioBV13 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This eBioBV13 antibody has been tested by flow cytometric analysis of mouse bEnd.3 cells. This may be used at less than or equal to 1.0 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 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 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.

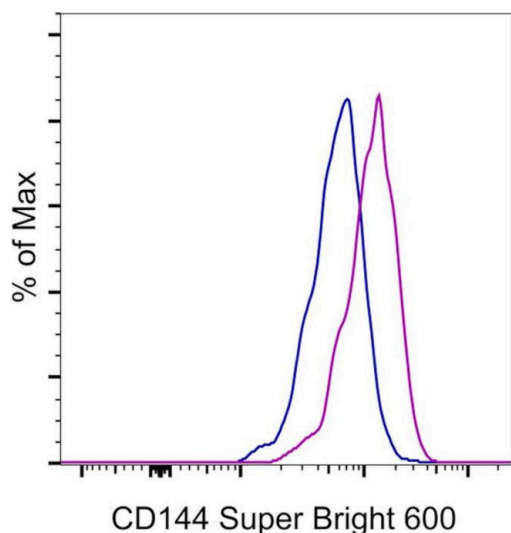
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

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: 600 nm; Laser: Violet Laser

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

## Product Images For CD144 (VE-cadherin) Monoclonal Antibody (eBioBV13 (BV13)), Super Bright™ 600, eBioscience™



### CD144 (VE-cadherin) Antibody (63-1441-82) in Flow

Staining of bEnd-3 cells with 1.0  $\mu$ g of Rat IgG1 kappa Isotype Control, Super Bright 600 (Product # 63-4301-82) (blue histogram) or 1.0  $\mu$ g of CD144 (VE-cadherin) Monoclonal Antibody, Super Bright 600 (purple histogram). Total viable cells were used for analysis.

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

## 10 References

### Western Blot (1)

Aging cell

#### Monomeric C-reactive protein via endothelial CD31 for neurovascular inflammation in an ApoE genotype-dependent pattern: A risk factor for Alzheimer's disease?

"Published figure using CD144 (VE-cadherin) monoclonal antibody (Product # 63-1441-82) in Western Blot"

Authors: Zhang Z, Na H, Gan Q, Tao Q, Alekseyev Y, Hu J, Yan Z, Yang JB, Tian H, Zhu S, Li Q, Rajab IM, Blusztajn JK, Wolozin B, Emili A, Zhang X, Stein T, Potempa LA, Qiu WQ

Year  
2021

### Immunohistochemistry (2)

JCI insight

#### Flow pattern-dependent mitochondrial dynamics regulates the metabolic profile and inflammatory state of endothelial cells.

"Published figure using CD144 (VE-cadherin) monoclonal antibody (Product # 63-1441-82) in Immunohistochemistry"

Authors: Hong SG, Shin J, Choi SY, Powers JC, Meister BM, Sayoc J, Son JS, Tierney R, Recchia FA, Brown MD, Yang X, Park JY

Year  
2022

The Journal of cell biology

#### VE-cadherin endocytosis controls vascular integrity and patterning during development.

"Published figure using CD144 (VE-cadherin) monoclonal antibody (Product # 63-1441-82) in Immunocytochemistry"

Authors: Grimsley-Myers CM, Isaacson RH, Cadwell CM, Campos J, Hernandez MS, Myers KR, Seo T, Giang W, Griendling KK, Kowalczyk AP

Year  
2020

### Immunocytochemistry (4)

Cell death & disease

#### Knockout RAGE alleviates cardiac fibrosis through repressing endothelial-to-mesenchymal transition (EndMT) mediated by autophagy.

"Published figure using CD144 (VE-cadherin) monoclonal antibody (Product # 63-1441-82) in Immunocytochemistry"

Authors: Zhang L, He J, Wang J, Liu J, Chen Z, Deng B, Wei L, Wu H, Liang B, Li H, Huang Y, Lu L, Yang Z, Xian S, Wang L

Year  
2021

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

### More applications with references on thermofisher.com

### Flow (3)

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