

CD144 (VE-cadherin) Monoclonal Antibody (eBioBV13 (BV13)), Functional Grade, eBioscience™

Product Details	
Size	50 µg
Published Species	Mouse, Human
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioBV13 (BV13)
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Storage conditions	4° C
RRID	AB_842778

Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-Dependent	4 Publications
Immunohistochemistry (IHC)	-	5 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	-
Immunocytochemistry (ICC/IF)	-	6 Publications
Flow Cytometry (Flow)	1 µg/test	11 Publications
ELISA (ELISA)	-	1 Publication
Immunoprecipitation (IP)	Assay-Dependent	-
ChIP assay (ChIP)	-	1 Publication
Functional Assay (FN)	Assay-Dependent	1 Publication
Peptide array (Array)	-	1 Publication

Product Specific Information

Description: The 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 (BV13) antibody has been reported for use in flow cytometric analysis, immunoprecipitation, immunoblotting (WB), and immunohistology staining of frozen tissue sections. Intravenous injection of BV13 has been shown to induce a concentration- and time-dependent increase in vascular permeability in the heart and lungs.

Applications Tested: This eBioBV13 (BV13) antibody has been tested by flow cytometric analysis of bEnd.3 cells. This can be

used at less than or equal to 1 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Storage and handling: Use in a sterile environment.

Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

Western Blot (4)

<p>Aging cell</p> <p>Monomeric C-reactive protein via endothelial CD31 for neurovascular inflammation in an ApoE genotype-dependent pattern: A risk factor for Alzheimer's disease?</p> <p>"Published figure using CD144 (VE-cadherin) monoclonal antibody (Product # 16-1441-82) in Western Blot"</p> <p>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</p>	<p>Year</p> <p>2021</p>
<p>Cell death & disease</p> <p>Knockout RAGE alleviates cardiac fibrosis through repressing endothelial-to-mesenchymal transition (EndMT) mediated by autophagy.</p> <p>"Published figure using CD144 (VE-cadherin) monoclonal antibody (Product # 16-1441-82) in Flow Cytometry"</p> <p>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</p>	<p>Year</p> <p>2021</p>

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Immunohistochemistry (5)

<p>JCI insight</p> <p>Flow pattern-dependent mitochondrial dynamics regulates the metabolic profile and inflammatory state of endothelial cells.</p> <p>"Published figure using CD144 (VE-cadherin) monoclonal antibody (Product # 16-1441-82) in Immunohistochemistry"</p> <p>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</p>	<p>Year</p> <p>2022</p>
<p>The Journal of cell biology</p> <p>VE-cadherin endocytosis controls vascular integrity and patterning during development.</p> <p>"Published figure using CD144 (VE-cadherin) monoclonal antibody (Product # 16-1441-82) in Immunocytochemistry"</p> <p>Authors: Grimsley-Myers CM,Isaacson RH,Cadwell CM,Campos J,Hernandes MS,Myers KR,Seo T,Giang W,Griendling KK,Kowalczyk AP</p>	<p>Year</p> <p>2020</p>

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- ChIP (1)
- FN (1)
- Array (1)

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