

## Product datasheet for **AM26286FC-N**

### VE Cadherin (CDH5) (Extracell. Dom) Mouse Monoclonal Antibody [Clone ID: BV9]

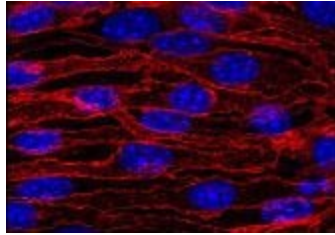
#### Product data:

Product Type:	Primary Antibodies
Clone Name:	BV9
Applications:	ELISA, FC, FN, IF, IHC, IP, WB
Recommended Dilution:	<b>Immunohistochemistry on frozen sections</b> (2): Acetone fixed sections were blocked with horse serum and incubated with antibody BV9 for 30 minutes (Ref.2). The typical starting working dilution is 1:10. <b>Flow Cytometry</b> (4): Antibody BV9 stains the extracellular domain of VE-cadherin. As negative control an IgG isotype control was used (Ref.4). The typical starting working dilution is 1:10. <b>Functional Assays</b> (5-8): Antibody BV9 functions as an antagonist. The antibody was functionally tested by adding 10-50µg/ml antibody BV9 to cell culture. The antibody blocks VE-cadherin causing a redistribution of VE-cadherin away from intracellular junctions(Ref.5, 6). <b>Immunoassays:</b> Antibody BV9 can function as coat and detector. <b>Immunoprecipitation</b> (3). <b>Western Blot</b> (1,3): A reduced sample treatment and 7.5% SDS-Page was used. The band size is 130-140kDa (Ref.3). The typical starting working dilution is 1:10. <b>Immunofluorescence</b> (3,5,8): Cells on coverslips were fixed with 3% paraformaldehyde and permeabilized with 0.5% Triton X-100 before incubation with antibody BV9 (Ref.5, 8). <b>Positive Control:</b> HUVECs grown on coverslips.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Specificity:	The monoclonal antibody BV9 binds to the extracellular domain (EC3-EC4) of human VE-cadherin (vascular endothelial cadherin).
Formulation:	PBS Label: FITC State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 1% BSA Preservative: 0.02% Sodium Azide

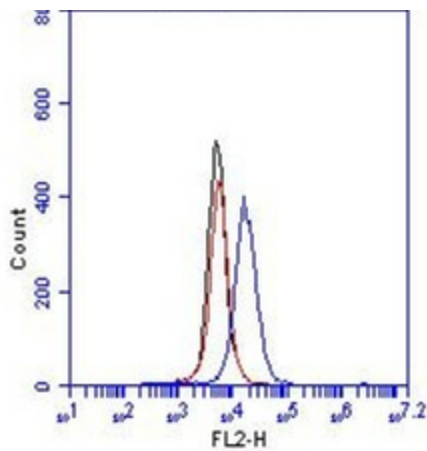


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Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	FITC
Storage:	Store undiluted at 2-8°C. <b>DO NOT FREEZE!</b>
Stability:	Shelf life: one year from despatch.
Gene Name:	cadherin 5
Database Link:	<a href="#">Entrez Gene 1003 Human P33151</a>
Background:	<p>Endothelial cells control the passage of plasma constituents and circulating cells from blood to the underlying tissues. VE-cadherin is of vital importance for the maintenance and control of endothelial cell contacts. Mechanisms that regulate VE-cadherin-mediated adhesion are important for the control of vascular permeability and leukocyte extravasation. VE-cadherin regulates various cellular processes such as cell proliferation and apoptosis and modulates vascular endothelial growth factor receptor functions. Therefore, VE-cadherin is also essential during embryonic angiogenesis. The specialized function of VE-cadherin is lost or impaired in several pathological conditions - including inflammation, sepsis, ischemia and diabetes - which leads to severe, and sometimes fatal, organ dysfunction. Furthermore, abnormal increase in vascular permeability is often observed in pathological conditions, such as tumor-induced angiogenesis, macular degeneration, allergy, and brain stroke.</p> <p>Endothelial permeability is regulated in part by the dynamic opening and closure of cell-cell adherent junctions. In vascular endothelium, adherent junctions are mainly composed of VE-cadherin, an adhesive receptor that is able to self-associate at endothelial cell-cell contacts. VE-cadherin links endothelial cells together by homophilic interactions mediated by its extracellular part and associates intracellularly with the actin cytoskeleton via catenins. VE-cadherin belongs to the cadherin super-family of cell-cell adhesion molecules, which are encoded by more than 200 genes in the human genome. Classical cadherins are Ca<sup>2+</sup>-dependent, homophilic, cell to cell adhesion molecules expressed in nearly all cells within solid tissues. Cadherins form a core adhesion complex that consists of a cadherin dimer, binding through its extracellular region to another dimer of cadherins expressed in adjacent cells, while its intracellular region is anchored to the plasma membrane and linked to the cytoskeleton. The VE-cadherin extracellular domain consists of five cadherin-type repeats, called EC (extracellular cadherin) domains that are bound together by calcium ions in a rod-like structure.</p>
Synonyms:	VE-Cadherin, Vascular endothelial cadherin, CDH5

**Product images:**

Endothelial cells were fixed with 4% PAF (15 min, room temp), and then permeabilized with 0.5% TritonX-100 (3 min, room temperature). Cells were incubated with a final concentration of 10mg/ml BV9. Secondary detection was performed with anti-mouse Alexa-Fluor 647 and counterstained using DAPI.



HUVEC cells were stained with antibody BV9 in PBS/0.1% saponin for 1h at 4°C. (Black- no stain, Red- isotype control, Blue- [AM26286PU-N]??BV9)