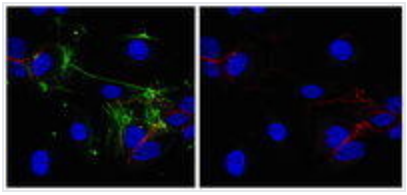
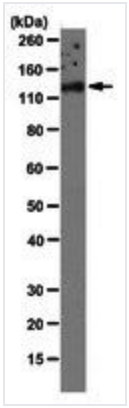
CDH5 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CDH5, Monoclonal Antibody
Full Product Name	CDH5 (Cadherin-5, 7B4 Antigen, Vascular Endothelial Cadherin, VE-cadherin, CD144) (MaxLight 750)
Product Gene Name	anti-CDH5 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	13A168
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight750.
Purity/Purification	Purified by Protein G Affinity Chromatography
Specificity	Recognizes human VE-Cadherin.
Preparation and Storage	Store at 4 degree C. Do Not Freeze.
Molecular Weight	91.5kDa (810aa) 70-100kDa (SDS-PAGE under reducing conditions.)
OMIM	601120
3D Structure	ModBase 3D Structure for P33151
Immunogen	HUVEC cells
Conjugate	MaxLight750
Product Categories/Family for anti-CDH5 antibody	Antibodies; Cadherin
Applications Tested/Suitable for anti-CDH5 antibody	Flow Cytometry (FC/FACS), Immunocytochemistry (ICC), Immunohistochemistry (IHC), Western Blot (WB)
Related Product Information for anti-CDH5 antibody	MBS6247312 is an antibody targeting CDH5. Also known as CDH5 (Cadherin-5, 7B4 Antigen, Vascular Endothelial Cadherin, VE-cadherin, CD144) (MaxLight 750). Reactive in Human. Host: Mouse.
Product References and Citations for anti-CDH5 antibody	1. Prigozhina, N.L., et al. (2007). Assay Drug Dev Technol. 5(1):29-48. 2. Cohen, C.D., et al. (2006). Proc Natl Acad Sci USA. 103(15):5682-5687. 3. Wary, K.K., et al. (2003). Mol Cancer. 2(1):25. 4. Humtsoe, J.O., et al. (2003). EMBO J. 22(7): 1539-1554. 5. Herren, B., et al. (1998). Mol Biol Cell. 9(6): 1589-1601. 6. Harraz, M., et al. (2001). Stem Cells. 19:304- 312. 7. Yang, S., et al. (1999). American Journal of Pathology. 155:887-895. 8. Reyes, M., et al. (2002). J Clin Invest. 109:337-346. 9. Matsumoto, Y., et al. (1993). Transplantation. 56(1):69-75. 10. Horak, E.R., et al. (1992). Lancet. 340(8828): 1120-1124. 11. Gerecht-Nir, S., et al. (2003). Lab Invest. 83(12):1811-1820. 12. Konstantoulaki, M., et al. (2003). AmJ Physiol Lung Cell Mol Physiol. 285:L434-L442. 13. Martin-Padura, I., et al. (1995) J. Pathol. 175(1):51-57. 14. Lampugnani, M.G., et al. (1992). J. Cell Biol. 118:1511-1522. 15. Tang, D.G., et al. (1993). J. Biol. Chem. 268(30):22883-22894. 16. Brevario, F., et al. (1995). Aterioschler Thromb Vasc Biol. 15(8):1229-1239.
Other Notes	Small volumes of anti-CDH5 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Immunocytochemistry (ICC) of anti-CDH5 antibody
Immunocytochemistry Analysis: Representative lot data. Confocal fluorescent analysis of HUVEC cells using VE-cadherin (Red). Actin filaments have been labeled with Alexa Fluor® 488 dye -Phalloidin (Green). Nucleus is stained with DAPI (Blue). This antibody positively stains the cell membrane.



Western Blot (WB) of anti-CDH5 antibody
Western Blotting Analysis: Representative lot data. HUVEC cell lysate was probed with VE-cadherin (1:2000 dilution). Proteins were visualized using a Goat Mouse IgG secondary antibody conjugated to HRP and a chemiluminescence detection system. Arrow indicates VE-cadherin (~120kD).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CDH5. It may not necessarily be applicable to this product.

NCBI GI #	166362713
NCBI GeneID	1003
NCBI Accession #	NP_001786
UniProt Primary Accession #	P33151
UniProt Secondary Accession #	Q4VAI5; Q4VAI6
UniProt Related Accession #	P33151
GenBank Nucleotide #	NM_001795.4
NCBI Official Full Name	cadherin-5 preproprotein
NCBI Official Synonym Full Names	cadherin 5
NCBI Official Symbol	CDH5
NCBI Official Synonym Symbols	7B4; CD144
UniProt Protein Name	Cadherin-5
UniProt Synonym Protein Names	7B4 antigen; Vascular endothelial cadherin
Protein Family	Cadherin
UniProt Gene Name	CDH5
UniProt Synonym Gene Names	VE-cadherin
UniProt Entry Name	CADH5_HUMAN
NCBI Protein Information	cadherin-5
NCBI Summary for CDH5	This gene encodes a classical cadherin of the cadherin superfamily. The encoded preproprotein is proteolytically processed to generate the mature glycoprotein. This calcium-dependent cell-cell adhesion molecule is comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. Functioning as a classical cadherin by imparting to cells the ability to adhere in a homophilic manner, this protein plays a role in endothelial adherens junction assembly and maintenance. This gene is located in a gene cluster in a region on the long arm of chromosome 16 that is involved in loss of heterozygosity events in breast and prostate cancer. [provided by RefSeq, Nov 2015]

UniProt Comments for CDH5	CDH5: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. It associates with alpha-catenin forming a link to the cytoskeleton. Acts in concert with KRIT1 to establish and maintain correct endothelial cell polarity and vascular lumen. These effects are mediated by recruitment and activation of the Par polarity complex and RAP1B. Required for activation of PRKCZ and for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction. Interacts via cadherin 5 domain with PTPRB. Interacts with TRPC4. Interacts with KRIT1. Endothelial tissues and brain. Protein type: Motility/polarity/chemotaxis; Membrane protein, integral; Cell adhesion Chromosomal Location of Human Ortholog: 16q22.1 Cellular Component: adherens junction; tight junction; membrane; plasma membrane; integral to membrane; intercellular junction; cell junction Molecular Function: protein binding; beta-catenin binding; calcium ion binding; protein phosphatase binding; receptor binding Biological Process: intercellular junction assembly and maintenance; negative regulation of cell proliferation; homophilic cell adhesion; vascular endothelial growth factor receptor signaling pathway; blood vessel maturation
Research Articles on CDH5	**1.** This study demonstrated that changes in gene expression of CDH5 and CLDN5 due to shear stress within individual differentiations also revealed no trend.
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