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CDH5 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO2249a

Specification

CDH5 Antibody - Product Information

Application	**WB, FC, E**
Primary Accession	P33151
Reactivity	**Human, Rat**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**87.5kDa KDa**

Description
This gene is a classical cadherin from the cadherin superfamily and is located in a six-cadherin cluster in a region on the long arm of chromosome 16 that is involved in loss of heterozygosity events in breast and prostate cancer. The encoded protein is a calcium-dependent cell-cell adhesion glycoprotein comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. Functioning as a classic cadherin by imparting to cells the ability to adhere in a homophilic manner, the protein may play an important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. An alternative splice variant has been described but its full length sequence has not been determined.

Immunogen
Purified recombinant fragment of human CDH5 (AA: 29-223) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

CDH5 Antibody - Additional Information

Gene ID 1003

Other Names
Cadherin-5, 7B4 antigen, Vascular endothelial cadherin, VE-cadherin, CD144, CDH5

Dilution
WB~~1/500 - 1/2000
FC~~1/200 - 1/400
E~~1/10000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CDH5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CDH5 Antibody - Protein Information

Name CDH5 (HGNC:1764)

Function
Cadherins are calcium-dependent cell adhesion proteins (By similarity). They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types (PubMed:21269602). This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions (By similarity). It associates with alpha-catenin forming a link to the cytoskeleton (PubMed:10861224). Plays a role in coupling actin fibers to cell junctions in endothelial cells, via acting as a cell junctional complex anchor for AMOTL2 and MAGI1 (By similarity). Acts in concert with KRIT1 and PALS1 to establish and maintain correct endothelial cell polarity and vascular lumen (By similarity). These effects are mediated by recruitment and activation of the Par polarity complex and RAP1B (PubMed:20332120). Required for activation of PRKCZ and for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction (PubMed:20332120). Associates with CTNND1/p120-catenin to control CADH5 endocytosis (By similarity).

Cellular Location
Cell junction, adherens junction. Cell membrane; Single-pass type I membrane protein. Cytoplasm {ECO:0000250|UniProtKB:P55284}. Note=Found at cell-cell boundaries and probably at cell-matrix boundaries. KRIT1 and CDH5 reciprocally regulate their localization to endothelial cell-cell junctions

Tissue Location
Expressed in endothelial cells (at protein level) (PubMed:27338829). Expressed in the brain (PubMed:2059658)

CDH5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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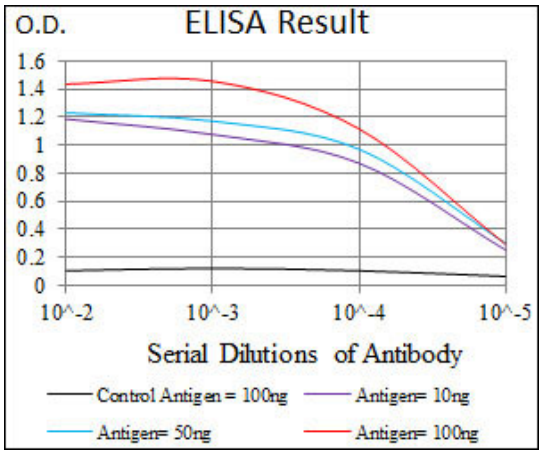

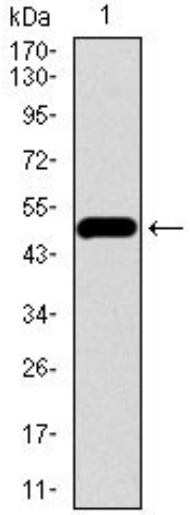

Figure 1: Western blot analysis using CDH5 mAb against human CDH5 recombinant protein. (Expected MW is 47.6 kDa)

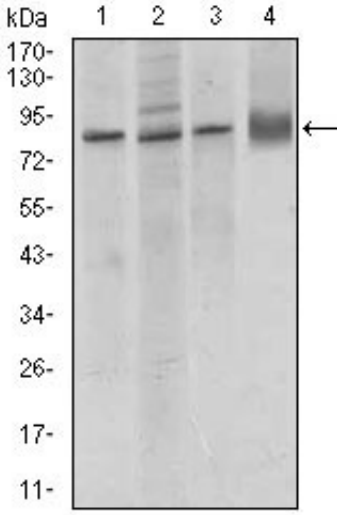

Figure 2: Western blot analysis using CDH5 mouse mAb against MCF-7 (1), A549 (2), HUVE-12 (3) cell lysate, and rat lung (4) tissue lysate.

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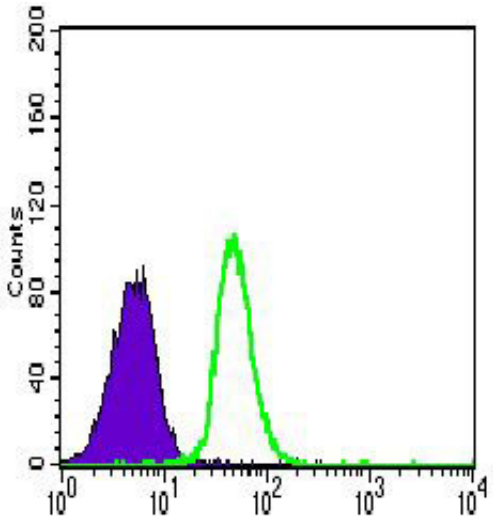

Figure 3: Flow cytometric analysis of Jurkat cells using CDH5 mouse mAb (green) and negative control (purple).

CDH5 Antibody - References

1.Blood. 2011 Feb 24;117(8):2515-26. 2.J Virol. 2010 Nov;84(21):11227-34.