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Datasheet for ABIN967858

anti-Cadherin 5 antibody (AA 26-194)

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Overview

Quantity:	150 µg
Target:	Cadherin 5 (CDH5)
Binding Specificity:	AA 26-194
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Cadherin 5 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

Product Details

Immunogen:	Human Cadherin 5 aa. 26-194
Clone:	75-Cadherin
Isotype:	IgG1
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target: Cadherin 5 (CDH5)

Alternative Name: Cadherin-5 ([CDH5 Products](#))

Background: Cadherins are a family of transmembrane glycoproteins involved in the Ca²⁺- dependent cell-cell adhesion that occurs in many tissues. These proteins are similar in their domain structure (45-74% amino acid conservation), Ca²⁺ and protease-sensitivity, and molecular weight. Cadherin-5 (VE-Cadherin or CD144) is one of a number of cadherins (cadherin-4 through -11) whose cDNAs were isolated from rat brain and retina. These cadherins have a cytoplasmic domain that is highly conserved relative to previously identified cadherins, indicating that this domain is essential for cell adhesion activity. This function is mediated by cadherin interaction with cytoskeletal proteins. However, Cadherin-5's cytoplasmic domain has the lowest degree of homology with the other cadherins. Cadherin-5 is expressed in brain and various other tissues, including umbilical cord vein endothelial cells. A new type of adhering junction has been identified in certain vascular endothelial cells. These junctions are known as complexus adherens and are morphologically and compositionally distinct from desmosomes and zonula adherens junctions. The complexus adherens of endothelial cells lack desmosomal cadherins as well as E-Cadherin. However, these cells are rich in Cadherin-5 which colocalizes with desmoplakin and gamma-Catenin (plakoglobin).

Molecular Weight: 130 kDa

Pathways: [Cell-Cell Junction Organization](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#)

Application Details

Comment: Related Products: ABIN968536, ABIN967389

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 250 µg/mL

Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

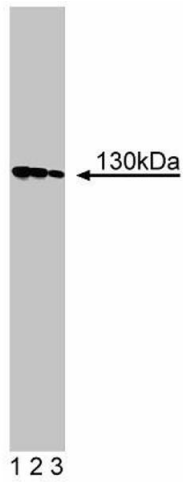
Preservative: Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

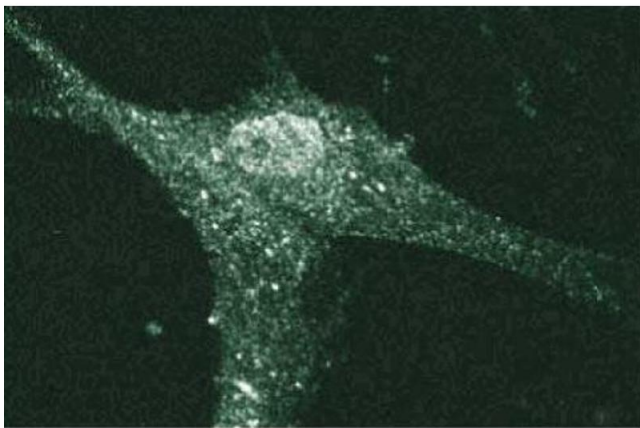
Publications

Product cited in:	<p>Corada, Zanetta, Orsenigo, Breviario, Lampugnani, Bernasconi, Liao, Hicklin, Bohlen, Dejana: "A monoclonal antibody to vascular endothelial-cadherin inhibits tumor angiogenesis without side effects on endothelial permeability." in: Blood, Vol. 100, Issue 3, pp. 905-11, (2002) (PubMed).</p> <p>Corada, Liao, Lindgren, Lampugnani, Breviario, Frank, Muller, Hicklin, Bohlen, Dejana: "Monoclonal antibodies directed to different regions of vascular endothelial cadherin extracellular domain affect adhesion and clustering of the protein and modulate endothelial permeability." in: Blood, Vol. 97, Issue 6, pp. 1679-84, (2001) (PubMed).</p> <p>Rahimi, Kazlauskas: "A role for cadherin-5 in regulation of vascular endothelial growth factor receptor 2 activity in endothelial cells." in: Molecular biology of the cell, Vol. 10, Issue 10, pp. 3401-7, (1999) (PubMed).</p> <p>Schmelz, Franke: "Complexus adhaerentes, a new group of desmoplakin-containing junctions in endothelial cells: the syndesmos connecting rethelial cells of lymph nodes." in: European journal of cell biology, Vol. 61, Issue 2, pp. 274-89, (1993) (PubMed).</p> <p>Suzuki, Sano, Tanihara: "Diversity of the cadherin family: evidence for eight new cadherins in nervous tissue." in: Cell regulation, Vol. 2, Issue 4, pp. 261-70, (1991) (PubMed).</p>
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Western Blotting

Image 1. Western blot analysis of Cadherin-5 on human endothelial cell lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-Cadherin-5 antibody.



Immunofluorescence

Image 2. Immunofluorescent staining of Human Fibroblast cells.

Image 3.



Please check the [product details page](#) for more images. Overall 4 images are available for ABIN967858.