

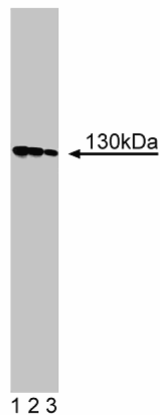
Technical Data Sheet

Purified Mouse Anti-Cadherin-5**Product Information**

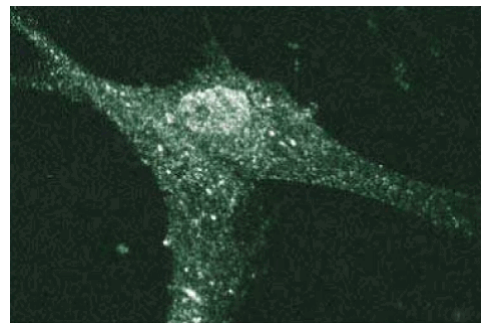
Material Number:	610252
Size:	150 µg
Concentration:	250 µg/ml
Clone:	75/Cadherin-5
Immunogen:	Human Cadherin 5 aa. 26-194
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	130 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

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 γ-Catenin (plakoglobin).



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.



Immunofluorescent staining of Human Fibroblast cells.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2008 BD



Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunoprecipitation	Not Recommended
Immunohistochemistry	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharming/en/protocols/Western_Blotting.shtml.

Suggested Companion Products

Catalog Number	Name	Size	Clone
611450	Human Endothelial Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols 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.

References

Corada M, Liao F, Lindgren M. Monoclonal antibodies directed to different regions of vascular endothelial cadherin extracellular domain affect adhesion and clustering of the protein and modulate endothelial permeability. *Blood*. 2001; 97(6):1679-1684.(Clone-specific: Immunofluorescence, Western blot)
Corada M, Zanetta L, Orsenigo F. A monoclonal antibody to vascular endothelial-cadherin inhibits tumor angiogenesis without side effects on endothelial permeability. *Blood*. 2002; 100(3):905-911.(Clone-specific: Flow cytometry, Western blot)
Rahimi N, Kazlauskas A. A role for cadherin-5 in regulation of vascular endothelial growth factor receptor 2 activity in endothelial cells. *Mol Biol Cell*. 1999; 10:3401-3407.(Clone-specific: Functional assay)
Schmelz M, Franke WW. Complexus adhaerentes, a new group of desmoplakin-containing junctions in endothelial cells: the syndesmos connecting retothelial cells of lymph nodes. *J Cell Biol*. 1993; 61(2):274-289.(Biology)
Suzuki S, Sano K, Tanihara H. Diversity of the cadherin family: evidence for eight new cadherins in nervous tissue. *Cell Regul*. 1991; 2(4):261-270.(Biology)