



Rabbit anti-
VE-Cadherin

For Research Use Only

Catalog No. 36-1900

Lot No. See product label

Rabbit anti-VE-Cadherin

FORM

This polyclonal antibody is supplied as a 200 µl aliquot at a concentration of 0.25 mg/ml in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. The antibody is epitope-affinity-purified from rabbit antiserum.

PAD: ZMD.277

IMMUNOGEN

Synthetic peptide derived from a C-terminal region of the human VE-cadherin (vascular endothelial cadherin, cadherin-5, CD144) protein.

SPECIFICITY

This antibody is specific for human VE-cadherin.

REACTIVITY

Reactivity has been confirmed with human PC-3 prostate adenocarcinoma cell lysates.

Sample	Western Blotting	ELISA
Human	+++	ND
Immunogen	N/A	+++

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

ELISA: 0.1 – 1.0 µg/ml
Western Blotting: 1-3 µg/ml

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI361900

(Rev 10/08) DCC-08-1089

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BACKGROUND

Vascular endothelial cadherin (VE-cadherin, cadherin-5, CD144) belongs to the cadherin family of proteins, which are calcium-dependent, protease-sensitive molecules that mediate homotypic cell-cell adhesion. Cadherins are transmembrane glycoproteins, localized at adherens junctions in cardiac cells and at intermediate junctions in intestinal epithelia.¹ While the extracellular domain mediates interactions with adjacent cells, the intracellular domain interacts with the cytoplasmic α -, β -, and γ -catenin proteins, anchoring the cadherins to the actin cytoskeleton.¹ Cadherin family members exhibit differential expression patterns and different cell-binding specificities; VE-cadherin is selectively expressed by the endothelial cells of most types of blood vessels,² concentrated at interendothelial junctions.¹

VE-cadherin is the target of signaling pathways and agents such as VEGF, histamine, and thrombin, that increase vascular permeability.³ Endothelial cells containing a null mutation in the VE-cadherin gene demonstrate major alterations in functional behavior and the inability to organize vascular-like structures, highlighting the importance of VE-cadherin in the maintenance of vascular integrity and normal organ function.³ In addition, VE-cadherin expression has been identified exclusively in highly aggressive uveal melanoma cell lines as opposed to their poorly aggressive counterparts, suggesting that VE-cadherin expression may be a marker for cells that have undergone a vasculogenic switch.⁴

REFERENCES

1. Brevario F, et al. *Arterioscler Thromb Vasc Biol* 15:1229-1239, 1995.
2. Navarro P, et al. *J Biol Chem* 270(52):30965-30972, 1995.
3. Corada M, et al. *PNAS* 96:9815-9820, 1999.
4. Hendrix MJC, et al. *PNAS* 98(14):8018-8023, 2001.

RELATED PRODUCTS

Product	Clone/PAD*	Cat. No.
Ms anti-E-Cadherin	4A2C7	33-4000
Ms anti-E-Cadherin	HECD-1	13-1700
Rt anti-E-Cadherin	ECCD-2	13-1900
Ms anti-E-Cadherin	SHE78-7	13-5700
Rt anti-E-Cadherin	ECCD-1	13-1800
Ms anti-Ksp-Cadherin	4H6/F9	35-4700
Ms anti-N-Cadherin	3B9	33-3900
Rt anti-N-Cadherin	NCD-2	13-2100
Ms anti-P-Cadherin	12H6	32-4000
Ms anti-P-Cadherin	NCC-CAD-299	13-5800
Rt anti-P-Cadherin	PCD-1	13-2000
Ms anti-Cadherin 11	5B2H5	32-1700
Rb anti-Cadherin 11	WTID1	71-7600
Rb anti-pan-Cadherin	ZyPC7	71-7100
Ms anti- α -Catenin	α CAT-7A4	13-9700
Rb anti- α -Catenin	ZER2	71-1200
Ms anti- β -Catenin	CAT-5H10	13-8400
Rb anti- β -Catenin	CAT-15	71-2700
Ms anti- γ -Catenin	PG-11E4	13-8500

*PAD: Polyclonal Antibody Designation

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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