



Qty: 100 µg

Mouse anti-E-Cadherin (Human)

Catalog No. 13-1700

Lot No.: See product label

Expiration: See product label.

## Mouse anti-E-Cadherin (Human)

### FORM

Antibody is supplied lyophilized in 10 mM PBS, 1.0% bovine serum albumin. Ascites fluid was produced in BALB/c mice. Antibodies were purified by ammonium sulfate precipitation and anion exchange chromatography.

PLEASE NOTE: THIS PRODUCT DOES **NOT** CONTAIN A PRESERVATIVE.

**CLONE:** HECD-1

**ISOTYPE:** IgG<sub>1</sub>

**CLONING PARTNER:** Myeloma cell line P3-X63-Ag8-U1.

**IMMUNOGEN:** Human breast tumor cell line MCF-7.

### SPECIFICITY

This antibody reacts strongly with human epithelial cadherin (E-cadherin, uvomorulin).

### RECONSTITUTION

Reconstitute the lyophilizate with 50 µl of distilled water to yield a concentration of 2 mg/ml. For 2-8°C storage, add 0.1% NaN<sub>3</sub>. Recommended diluent: 20 mM TBS, pH 7.4, 10 mM CaCl<sub>2</sub>, 0.1% NaN<sub>3</sub> and 1.0% bovine serum albumin.

### USAGE

Optimal dilutions should be determined by the researcher for each application.

Sample	ELISA <sup>(15)</sup>	Western Blotting <sup>(18, 21, 23)</sup>	Immunohistochemistry <sup>(10)</sup> (frozen <sup>(11)</sup> or FFPE <sup>(12, 13)</sup> )	Inhibition of E-cadherin-dependent cell-cell contact <sup>(15, 19)</sup>
Human	1:10,000, (immobilized A431 cells)	1-10 µg/ml	~10 µg/ml	~200 µg/ml

Sample	Flow cytometry <sup>(14)</sup>	Immunofluorescence <sup>(16, 17, 22)</sup>	Immunoprecipitation <sup>(20)</sup>
Human	~10 µg/ml	~2-5µg/ml	~5µg/IP reaction

### STORAGE

Lyophilized antibodies are stable for 2-8°C for 2 years. The reconstituted solution (2.0mg/ml) should be stored at 2-8°C for up to 6 months, or at -20°C for 1 year, after 0.1% NaN<sub>3</sub> is added. Avoid repeated freezing and thawing.

### BACKGROUND

Cadherins are a multifunctional family of Ca<sup>2+</sup>-dependent, transmembrane glycoproteins which promote and maintain cell adhesion in virtually all multicellular organisms. The cadherin superfamily comprises over forty proteins which are, on average, 50-60% homologous.<sup>(1)</sup> Cadherin expression is required for the assembly of cells into solid tissues and importantly, cadherins are expressed in a tissue specific fashion.<sup>(2)</sup> Homotypic cellular interactions are promoted by homophilic interactions between the extracellular regions of like cadherin molecules on neighboring cells. Recent crystal structure analysis of an extracellular cadherin domain suggests that individual cadherin molecules cooperate to form a linear cell adhesion zipper.<sup>(3)</sup> In adherens junctions, cadherins are anchored to the actin cytoskeleton by interaction with the small cytoplasmic proteins β-catenin and γ-catenin which both bind to the actin binding protein α-catenin.<sup>(4, 5)</sup> The interaction of β-catenin with the cytoplasmic tail of cadherins and other cytoplasmic proteins, including Tcf-family transcription factors and the tumor suppressor protein APC, is thought to be mediated through a region of the β-catenin molecule containing multiple repeats of the 42 amino acid armadillo sequence motif.<sup>(6)</sup> In addition to playing important roles in differentiation and tissue morphogenesis, cadherins also appear to play a significant role in modulating tumor invasion and metastasis.<sup>(7)</sup> The expression of E-cadherin correlates inversely with the motile and invasive behavior of tumor cells.

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## REFERENCES

- Marrs J. A., and Nelson W. J. (1996) *International Review of Cytology* 165:159-205.
- Takeichi M. (1991) *Science* 251:1451-1455.
- Shapiro L., et al and Hendrickson, W. A. (1995) *Nature* 374, 327-337.
- Ozawa M, Baribault H. and Kemier R. (1989) *EMBO J.* 8:1711-1717.
- Aberle H., et al, and Hoschuetzky H. (1994) *J. Cell Sci.* 107:3655-3663.
- Huber A. H., Nelson W. J., and Weis W. I. (1997) *Cell* 90:871-882.
- Jiang W. G. (1996) *British Journal of Surgery* 83:437-446.
- Schofield K., D'Aquila T and Rimm D. L. (1997) *Cancer* 81:293-298
- Soler A. P., et al, and Keshgegian A. A. (1997) *American Journal of Pathology* 151:471-478
- Horiguchi, Y., et al; *J.Histochem. Cytochem.* 42(10): 1333-1340 (1994).
- Siitonen, S.M. et al; *Am J Clin Pathol* 105:394-402 (1996).
- Rasbridge et al; *J. Pathol* 169:245-250 (1993).
- Jankowski, J.A. et al; *International J. of Oncology* 4(2):441 (1994).
- Blouvelt, A. et al; *The J. of Investigative Dermatology* 104:293-296 (1995).
- Katayama, M.: *Int. J. Oncology* 5:1049-1057 (1994).
- Sommers, C. et al; *Cancer Res.* 54:3544-3552 (1994).
- Hoover, K.B., et al; *Amer. J. Pathol.* 153 (6):1767-1773 (1998).
- Hirano, S. et al; *Cell* 70:293-301 (1992).
- Watabe, M.: *J Cell Biology* 127(1): 247-256 (1994).
- Shibamoto, S. et al; *J Cell Biol.* 128:949-957 (1995).
- Bailey, T. et al; *J Pathol* 152 (1):135-144 (1998).
- Braga, V.M., et al; *J. Cell Bio.* 137(6):1421-1431(1997).
- Day, M.L., et al; *J. Biol. Chem.* 274:9656-9664 (1999).

## RELATED PRODUCTS

Product	Clone/PAD	Cat. No.
Ms x E-Cadherin	4A2C7	33-4000
Ms x E-Cadherin	HECD-1	13-1700
Ms x E-Cadherin	SHE78-7	13-5700
Rt x E-Cadherin	ECCD-1	13-1800
Rt x E-Cadherin	ECCD-2	13-1900
E-Cadherin ELISA Kit (42 test)	Kit	99-1700
Rt x N-Cadherin	NCD-2	13-2100
Ms x N-Cadherin	3B9	33-3900
Rt x P-Cadherin	PCD-1	13-2000
Ms x P-Cadherin	NCC-CAD-299	13-5800
Rb x pan-Cadherin	ZyPC7	71-7100
Ms x Cadherin 11	5B2H5	32-1700
Rb x Cadherin 11	WTID1	71-7600
Ms x $\alpha$ -Catenin	$\alpha$ CAT-7A4	13-9700
Rb x $\alpha$ -Catenin	ZER2	71-1200
Ms x $\beta$ -Catenin	CAT-5H10	13-8400
Rb x $\beta$ -Catenin	CAT-15	71-2700
Ms x $\gamma$ -Catenin	PG-11E4	13-8500
Ms x p120 <sup>ctn</sup>	15D2	33-9600
Protein A	Sepharose <sup>®</sup> 4B	10-1041
rec-Protein G	Sepharose <sup>®</sup> 4B	10-1241

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

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Explanation of symbols			
Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		In vitro diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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