



Qty: 100 µg/200 µl
Mouse anti-E-Cadherin
Catalog No. 33-4000
Lot No.

Mouse anti-E-Cadherin

FORM

This monoclonal antibody is highly purified from mouse ascites by protein A chromatography. The antibody is supplied as a 200 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide.

CLONE: 4A2C7 **ISOTYPE:** Mouse IgG₁-κ

IMMUNOGEN

The cytoplasmic domain of human E-cadherin expressed as a fusion protein with MBP.

SPECIFICITY

This antibody is specific for E-cadherin but does show some minor cross-reactivity with P-cadherin.

REACTIVITY

This antibody reacts with human E-Cadherin protein. Reactivity with other species has not been tested.

Sample	IP	IHC	WB
Human	+	+	+

USAGE

Working concentrations for specific applications should be determined by the investigator. Optimal dilutions 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 tested. The following ranges are recommended starting points for this product.

Western Blotting: 1 µg/ml
Immunoprecipitation: 2-5 µg
Immunohistochemistry*: 2-10 µg/ml

* Formalin-fixed, paraffin embedded sections required a Heat Induced Epitope Retrieval (HIER) step prior to staining.

STORAGE

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

BACKGROUND

Cadherins are a multifunctional family of Ca²⁺-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 (reviewed in ref 1). Cadherin expression is required for the assembly of cells into solid tissues and importantly, cadherins are expressed in a tissue specific fashion ⁽²⁾. 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.⁽³⁾ In adherens junctions, cadherins are anchored to the actin cytoskeleton by interaction with the small

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cytoplasmic proteins β -catenin and γ -catenin which both bind to the actin binding protein α -catenin.^(4,5) 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 (ref 6). 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 (see ref 7 for review). The expression of E-cadherin correlates inversely with the motile and invasive behavior of tumor cells. In addition, the tissue specificity of cadherin subtypes are becoming valuable markers for the identification and differential diagnosis of certain cancers.^(8,9)

REFERENCES

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RELATED PRODUCTS

Product	Clone/PAD	Cat. No.
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
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
E-Cadherin ELISA Kit (42 test)	Kit	99-1700
Ms x α -Cadherin	α CAT-7A4	13-9700
Rb x α -Cadherin	ZER2	71-1200
Ms x β -Catenin	CAT-5H10	13-8400
Ms x γ -Catenin	PG-11E4	13-8500
Ms x p120 ^{cas}	15D2	33-9600
Rb x β -Catenin	CAT-15	71-2700

Product	Conjugate	Cat. No.
Goat anti-Mouse IgG (H+L) (ZyMAX™ Grade)	Purified	81-6500
	FITC	81-6511
	TRITC	81-6514
	Cy™3	81-6515
	Cy™5	81-6516
	HRP	81-6520
	AP	81-6522
	Biotin	81-6540

Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

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