Qty: 100 µg/200 µl

Mouse anti-N-Cadherin

Catalog No. 33-3900

Lot No. **See product label**

Mouse anti-N-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: 3B9 **ISOTYPE:** IgG_1-κ

IMMUNOGEN
This antibody was raised against a recombinant protein representing a portion of the intracellular domain of chicken N-cadherin.

SPECIFICITY
This antibody is specific for N-cadherin and does not cross-react with other cadherin family members including P- and E-cadherins.

REACTIVITY
Reactivity of this antibody with the N-Cadherin protein from human and other species has been confirmed in the applications indicated below. Species not listed in this table have not been tested.

Sample	Immuno-fluorscence	Immuno-histochemistry (paraffin)*	Immuno-precipitation (native)	Western Blot
Chicken				+
Human	+	+	+	+
Mouse				+
Rat				+
Pig				+

empty cells indicates not determined

USAGE
The dilutions listed below are good starting points; however, optimal dilution of the antibody should be determined by the investigator for each application.

Immunofluorescence:	1-3 µg/ml	**Immunoprecipitation:**	3-5 µg/IP reaction
Immunohistochemistry*:	1-5 µg/ml	**Western Blotting:**	0.5-1 µg/ml

***Formalin-fixed, paraffin-embedded tissue. Heat induced epitope retrieval required (contact Invitrogen for protocol).**

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 Ca^{2+}-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 homophillic interactions between the extracellular regions of like cadherin molecules on neighboring cells. Recent crystal

(cont'd)

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 ctytoskeleton by interaction with the small 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 behaviour 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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5. Aberle H., et al, and Hoschuetzky H. (1994) *J. Cell Sci.* 107:3655-3663.
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9. Soler A. P., et al, and Keshgegian A. A. (1997) *American Journal of Pathology* 151:471-478

RELATED PRODUCTS

Product	*Clone*	*Cat. No.*
Rt x N-Cadherin (chicken/frog)	NCD-2	13-2100
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
Ms x P-Cadherin	NCC-CAD-299	13-5800
Rt x P-Cadherin	PCD-1	13-2000
Rb x α-Catenin	ZER2	71-1200
Ms x α-Catenin	αCAT-7A4	13-9700
Rb x β-Catenin	CAT-15	71-2700
Rb x Occludin	Polyclonal	71-1500
Rb x ZO-1	Polyclonal	61-7300
PolyFast™ Rb x Axin2 + Peptide	AX2	52-1307
PolyFast™ Rb x Cerberus + Peptide	CB1	52-1507
PolyFast™ Rb x DVL1 + Peptide	Z-CD1	52-1607
PolyFast™ Rb x FRZ1 + Peptide	Z-CF1	52-1707
PolyFast™ Rb x ILK + Peptide	Z-CIL6	52-1807
PolyFast™ Rb x TCF-4 + Peptide	Z-NT4	52-1907
PolyFast™ Rb x WIF-1 + Peptide	Z-CW1	52-2107
PolyFast™ Rb x Wnt-1 + Peptide	Z-CW7	52-2207
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

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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