Qty: 100 µg/400 µl

Rabbit anti-Claudin-7

Catalog No. 34-9100

Lot No. See product label

Rabbit anti-Claudin-7

FORM
This polyclonal antibody is supplied as a 400 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.241

IMMUNOGEN
Synthetic peptide derived from the C-terminal region of the human Claudin-7 protein.

SPECIFICITY
This antibody reacts with the human Claudin-7.

REACTIVITY
Reactivity is confirmed with human T47D cell lysates, human and mouse breast tissues and dog MDCK cell lysates.

Sample	Western Blotting	Immuno-fluorescence	Immuno-Histochemistry (FFPE)
Human	+++	ND	+++
Mouse	+++	ND	+++
Dog	+++	++	ND

(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.

Immunofluorescence: 1-2 µg/ml
Immunohistochemistry: 1-2 µg/ml
Western Blotting: 1-2 µg/ml

Note: Immunohistochemistry with formalin-fixed, paraffin-embedded tissues will require heat-induced epitope retrieval (HIER) with citrate buffer, pH 6.0 prior to normal IHC staining protocols.

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)

BACKGROUND

Tight junctions are specialized regions of cell-cell contact that are particularly abundant in luminal epithelial cell sheets. In freeze-fracture electron micrographs, tight junctions are visualized as belt-like bands of anastomosing sealing strands (TJ strands) that completely encircle the lateral surfaces of each cell. TJ strands on adjacent cells are presumed to interact with each other to form a sort of "molecular gasket" that prevents ions, water and other molecules from leaking between cells and thus, from one side of the sheet to the other. In addition to this so-called "barrier" function, the "fence" function of tight junctions plays an important role in maintaining epithelial cell-polarity by blocking the diffusion of membrane proteins between apical (luminal) and basolateral cell surfaces.

Claudin-7 is localized in the intercellular junctions of the epithelial cells of the proximal tubules of the nephrons in mammalian kidney[1]. It is reportedly down regulated in head and neck squamous cell carcinomas[2]. Claudin-7 is also expressed in normal human and mouse epithelia.

REFERENCES

1. Reyes JL, et al. *Kidney Int* 62:476-487, 2002.
2. Al Moustafa AE, et al. *Oncogene* 21:2634-2640, 2002.

RELATED PRODUCTS

Product	*Clone/PAD**	*Cat. No.*
Cadherins and Catenins: see www.invitrogen.com		
Rabbit anti-Claudin-1	JAY.8	51-9000
Rabbit anti-Claudin-1	MH25	71-7800
Rabbit anti-Claudin-2	MH44	51-6100
Rabbit anti-Claudin-3	Z23.JM	34-1700
Mouse anti-Claudin-4	3E2C1	32-9400
Mouse anti-Claudin-5	4C3C2	35-2500
Rabbit anti-Claudin-5	Z43.JK	34-1600
Mouse anti-Claudin-15	4C12C5	32-9800
Rabbit anti-Claudin-16	ZMD.178	34-5400
Claudin Sampler Pack		90-0900
Mouse anti-Desmoglein-1	27B2	32-6000
Mouse anti-Desmoglein-2	6D8	32-6100
Mouse anti-Desmoglein-3	5G11	32-6300
Mouse anti-Occludin	OC-3F10	33-1500
Mouse anti-Occludin-FITC	OC-3F10	33-1500
Mouse anti-Occludin-HRP	OC-3F10	33-1520
Rabbit anti-Occludin	Z-T22	71-1500
Mouse anti-ZO-1	ZO-1-1A12	33-9100
Mouse anti-ZO-1-FITC	ZO-1-1A12	33-9111
Rabbit anti-ZO-1	Z-R1	61-7300
Rabbit anti-ZO-2	Z54.PL	71-1400
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

*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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