

Qty: 100 µg/400 µL

Rabbit anti-Claudin-4

Catalog No. 36-4800

Lot No. See product label

Rabbit anti-Claudin-4

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.306

IMMUNOGEN

Synthetic peptide derived from the C-terminal region of the mouse Claudin-4 protein.

SPECIFICITY

This antibody reacts with the mouse Claudin-4. On Western blots a 22 kDa band is observed and a 44 kDa band representing dimerized protein may be observed.

REACTIVITY

Reactivity has been confirmed with mouse and rat kidney homogenates.

Sample	Western Blotting	Immuno-precipitation	ELISA
Human	ND	ND	ND
Mouse	+++	+++	ND
Rat	+++	ND	ND
Immunogen	N/A	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
Immunoprecipitation: 1-3 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.

BACKGROUND

Claudin-4 belongs to the 20-member family of claudins, transmembrane proteins localized at epithelial and endothelial tight junctions. Claudins demonstrate distinct, tissue-specific expression patterns⁽¹⁾, and are essential components of tight junction charge-specific channels that regulate paracellular ion flux.

(cont'd)

WWW.INVITROGEN.COM

INVITROGEN CORPORATION • 542 FLYNN RD • CAMARILLO • CA 93012 • TEL: 800.955.6288 • E-MAIL: TECHSUPPORT@INVITROGEN.COM

PI364800

(Rev 10/08) DCC-08-1089

IMPORTANT LICENSING INFORMATION - THESE PRODUCTS MAY BE COVERED BY ONE OR MORE LIMITED USE LABEL LICENSES (SEE THE INVITROGEN CATALOG OR OUR WEBSITE, WWW.INVITROGEN.COM). BY USE OF THESE PRODUCTS YOU ACCEPT THE TERMS AND CONDITIONS OF ALL APPLICABLE LIMITED USE LABEL LICENSES. UNLESS OTHERWISE INDICATED, THESE PRODUCTS ARE FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC, THERAPEUTIC OR COMMERCIAL USE.

The overexpression of Claudin-4 has been shown to decrease paracellular electrical conductance due to a selective decrease in Na⁺ permeability, with no significant decrease in Cl⁻ permeability⁽²⁾. In ovarian carcinoma cells, Claudin-3 and Claudin-4 exhibit upregulation at both mRNA and protein levels^(3,4). Claudin-4 is also overexpressed in pancreatic cancer tissues and cell lines⁽⁵⁾.

REFERENCES

1. Morita K, et al. *J Cell Biol* 147:185-194, 1999.
2. Van Itallie CM, et al. *J Clin Invest* 107(10):1319-1327, 2001.
3. Hough CD, et al. *Cancer Res* 60:6281-6287, 2001.
4. Rangel LB, et al. *Clin Cancer Res* 9:2567-2575, 2003.
5. Michl P, et al. *Gastroenterology* 121(3):678-684, 2001.

RELATED PRODUCTS

PRIMARY ANTIBODIES	CLONE OR PAD*	CAT. NO.
Rb anti-Claudin-1	JAY.8	51-9000
Ms anti-Claudin-5	4C3C2	35-2500
Rb anti-Claudin-2	MH44	51-6100
Rb anti-Claudin-3	Z23.JM	34-1700
Rb anti-Claudin-5	Z43.JK	34-1600
Rb anti-Claudin-7	ZMD.241	34-9100
Rb anti-Claudin-14	ZMD.226	36-4200
Rb anti-Claudin-16	ZMD.178	34-5400
Rb anti-OSP/Claudin-11	ZMD.305	36-4500
Ms anti-Claudin-2	12H12	32-5600
Ms anti-Claudin-4	3E2C1	32-9400
Ms anti-Claudin-15	4C12C5	32-9800
Ms anti-ZO-1	ZO1-1A12	33-9100
Rb anti-ZO-1	Z-R1	61-7300
Rb anti-ZO-2	Z54.PL	71-1400
Rb anti-ZO-3 (C-term)	ZMD.261	36-4100
Rb anti-ZO-3 (Mid)	ZMD.260	36-4000
Ms anti-Occludin	OC-3F10	33-1500
Rb anti-Occludin	Z-T22	71-1500

*PAD- polyclonal antibody designation

Conjugate	ZyMAX™ Goat anti-Rabbit IgG (H+L)	ZyMAX™ Goat anti-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

ZyMed® and ZyMAX™ are trademarks of Zymed Laboratories Inc. Cy™ is a trademark of Amersham Life Sciences, Inc. Sepharose® is a registered trademark of Pharmacia LKB.

For Research Use Only

ES030912

WWW.INVITROGEN.COM

INVITROGEN CORPORATION • 542 FLYNN RD • CAMARILLO • CA 93012 • TEL: 800.955.6288 • E-MAIL: TECHSUPPORT@INVITROGEN.COM

PI364800

(Rev 10/08) DCC-08-1089

IMPORTANT LICENSING INFORMATION - THESE PRODUCTS MAY BE COVERED BY ONE OR MORE LIMITED USE LABEL LICENSES (SEE THE INVITROGEN CATALOG OR OUR WEBSITE, WWW.INVITROGEN.COM). BY USE OF THESE PRODUCTS YOU ACCEPT THE TERMS AND CONDITIONS OF ALL APPLICABLE LIMITED USE LABEL LICENSES. UNLESS OTHERWISE INDICATED, THESE PRODUCTS ARE FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC, THERAPEUTIC OR COMMERCIAL USE.