



Qty: 100µg/400 µL

Rabbit anti-Claudin-18 (Mid)

Catalog No. 38-8100

Lot No.

Rabbit anti-Claudin-18 (Mid)

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. This antibody is epitope-affinity purified from rabbit antiserum.

PAD: ZMD.396

IMMUNOGEN

Synthetic peptide derived from an internal region of the human Claudin-18 protein, which differs from mouse by one conservative amino acid replacement.

SPECIFICITY

This antibody reacts with the mouse Claudin-18 protein. On Western blots, it identifies the target band at ~29 kDa.

REACTIVITY

Reactivity has been confirmed with mouse lung and stomach homogenates by Western blotting, and with ethanol-fixed, flash-frozen mouse lung tissue by immunohistochemistry and immunofluorescence. Based on amino acid sequence homology, reactivity with human is expected.

Sample	Western Blotting	Immuno-histochemistry (frozen)	Immuno-fluorescence
Mouse	+++	+++	+++
Human	ND	ND	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.

Western Blotting: 1-3 µg/mL
Immunohistochemistry (frozen): 5 µg/mL
Immunofluorescence: 5 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.

(cont'd)

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BACKGROUND

Claudin-18 is a tight junction protein expressed as lung- and stomach-specific isoforms which are generated by alternative splicing of the *claudin-18* gene.¹ The lung-specific form is a downstream target gene regulated by the T/EBP/NKX2.1 transcription factor.¹ A splice variant lacking the C-terminal cytoplasmic domain also exists in mouse, but has not been confirmed in human.¹ Human claudin-18 demonstrates 88% amino acid sequence identity to the mouse protein.¹ Immunohistochemical studies have demonstrated complete membrane localization of claudin-18 in lung and stomach epithelial cells, while electron microscopy has shown that it is concentrated in the cell-cell borders of these cells.¹ These features suggest a potentially important role for claudin-18 in the structure and function of tight junctions in the lung and stomach.¹ Claudin-18 expression has also been reported in the inner ear.²

REFERENCES

1. Niimi T, et al. *Mol Cell Biol* 21:7380-7390, 2001.
2. Kitajiri SI, et al. *Hear Res* 187:25-34, 2004.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose [®] 4B	10-1041
rec-Protein G	Sepharose [®] 4B	10-1241

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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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