



**Qty:** 100µg/400 µL

**Rabbit anti-Claudin-12**

**Catalog No.** 38-8200

**Lot No.**

## Rabbit anti-Claudin-12

### 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.398

### IMMUNOGEN

Synthetic peptide derived from the N-terminal region of mouse and human Claudin-12

### SPECIFICITY

This antibody reacts with the ~27 kDa Claudin-12 protein.

### REACTIVITY

Reactivity has been confirmed with mouse lung, colon, and kidney homogenates. Based on amino acid sequence homology, reactivity with human Claudin-12 is expected.

Sample	Immunofluorescence	Western Blotting
Mouse	+++	+++
Human	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

**Immunofluorescence:** 5 µg/mL

*Note: Immunofluorescence labeling was performed using ethanol-fixed mouse colon.*

### 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**

Tight junctions are intercellular junctions that act as both the barrier (or gate), and the fence. The barrier function of tight junctions regulates the passage of ions, water, and various macromolecules through paracellular spaces. The fence function maintains cell polarity, thus, tight junctions work as a fence to prevent intermixing of molecules in the apical membrane with those in the lateral membrane. Tight junctions are comprised of the membrane proteins occludin, claudins, and JAMs. Claudins are responsible for the formation of tight junction strands and are connected with the actin cytoskeleton mediated by ZO-1.<sup>1</sup>

Claudin-12 expression has been observed in the lung, brain, kidney, skin, urinary bladder, and ear.<sup>2-6</sup>

**REFERENCES**

1. Sawada N, et al. *Med Electron Microsc* 36(3): 147-56, 2003.
2. Strausberg RL, et al. *PNAS* 99(26): 16899-903, 2002.
3. Kiuchi-Saishin Y, et al. *J Am Soc Nephrol* 13(4): 875-86, 2002.
4. Brandner JM, et al. *Eur J Cell Biol* 81(5): 253-63, 2002.
5. Acharya P, et al. *Am J Physiol Renal Physiol* 287(2): F305-18, 2004.
6. Kitajiri SI, et al. *Hear Res* 187(1-2): 25-34, 2004.

**RELATED PRODUCTS**

<b>Product</b>	<b>Conjugate</b>	<b>Cat. No.</b>
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

<b>Conjugate</b>	<b>ZyMAX™ Goat x Rabbit IgG (H+L)</b>	<b>ZyMAX™ Goat x Mouse IgG (H+L)</b>
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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