

PRODUCT INFORMATION

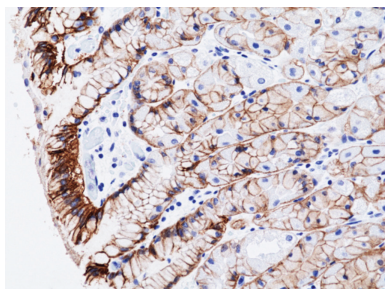
Claudin-18.2 Rabbit Monoclonal Antibody (Clone RM510)

Item No. 42777

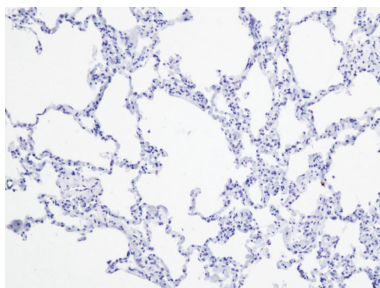
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonym:	Claudin-18.A2
Immunogen:	Peptide corresponding to residues of human claudin-18.2
Cross Reactivity:	(+) Claudin-18.2, Claudin 18 isoform 2
Species Reactivity:	(+) Human, mouse, rat
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	50% Glycerol/PBS with 1% BSA and 0.09% sodium azide
Clone:	RM510
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC); the recommended starting dilution is 1:100-1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

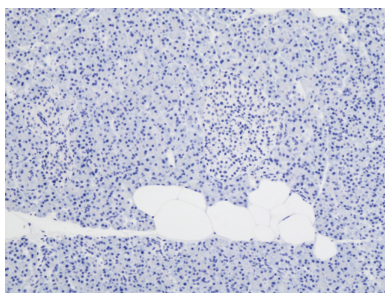
Images



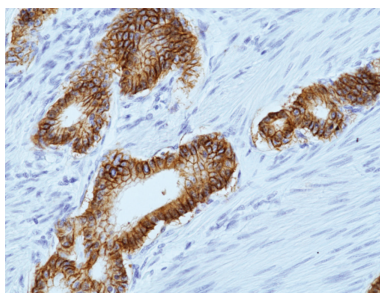
Immunohistochemical staining of formalin-fixed and paraffin-embedded human stomach (CLDN18.2 positive) tissue sections using Claudin-18.2 Rabbit Monoclonal Antibody (Clone RM510) at a dilution of 1:100.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human lung (CLDN18.2 negative) tissue sections using Claudin-18.2 Rabbit Monoclonal Antibody (Clone RM510) at a dilution of 1:100.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human pancreas (CLDN18.2 negative) tissue sections using Claudin-18.2 Rabbit Monoclonal Antibody (Clone RM510) at a dilution of 1:100.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human stomach adenocarcinoma tissue sections using Claudin-18.2 Rabbit Monoclonal Antibody (Clone RM510) at a dilution of 1:100.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

Claudin 18 isoform 2 (claudin-18.2) is a member of the claudin family of tight junction proteins.^{1,2} *CLDN18* is expressed as two isoforms, claudin-18.1 and claudin-18.2, that differ in their N-terminal domains and tissue expression.³ Both claudin-18 isoforms are composed of two cytoplasmic domains, four transmembrane domains, and two extracellular loops.¹ Claudin-18.2 is predominantly expressed in gastric epithelium.^{1,3} It forms tight junctions between epithelial cells and prevents paracellular hydrogen ion leakage.^{1,2} The levels of claudin-18.2 are increased in tumor tissue from patients with gastric adenocarcinoma.⁴ Formulations containing monoclonal antibodies targeting claudin-18.2 have been used in the treatment of gastric or gastroesophageal junction adenocarcinoma. Cayman's Claudin-18.2 Rabbit Monoclonal Antibody (Clone RM510) can be used for immunohistochemistry (IHC) applications.

References

1. Nakayama, I., Qi, C., Chen, Y., *et al.* Claudin 18.2 as a novel therapeutic target. *Nat. Rev. Clin. Oncol.* **21**(5), 354-369 (2024).
2. Tsukita, S., Tanaka, H., and Tamura, A. The claudins: From tight junctions to biological systems. *Trends Biochem. Sci.* **44**(2), 141-152 (2019).
3. Türeci, Ö., Koslowski, M., Helftenbein, G., *et al.* Claudin-18 gene structure, regulation, and expression is evolutionary conserved in mammals. *Gene* **481**(2), 83-92 (2011).
4. Rohde, C., Yamaguchi, R., Mukhina, S., *et al.* Comparison of Claudin 18.2 expression in primary tumors and lymph node metastases in Japanese patients with gastric adenocarcinoma. *Jpn. J. Clin. Oncol.* **49**(9), 870-876 (2019).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
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