

Rabbit anti-Human Claudin 7/CLDN-7 Polyclonal Antibody | anti-CLDN7 antibody

Anti-Claudin 7/CLDN-7 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125707	Rabbit	Human	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry

PRODUCT SYNONYMS

Claudin 7/CLDN-7; Polyclonal Antibody; Anti-Claudin 7/CLDN-7 Antibody; CLDN7; CEPTRL2; CPETRL2; Claudin-7; CLDN-7; claudin 7; anti-CLDN7 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for Claudin 7/CLDN-7 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-CLDN7 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry)
Immunogen	E Coli-derived human Claudin 7/CLDN-7 recombinant protein (Position: F92-V211).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Claudin 7/CLDN-7 using anti-Claudin 7/CLDN-7 antibody (AAA125707). Claudin 7/CLDN-7 was detected in paraffin-embedded section of human rectal tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-Claudin 7/CLDN-7 Antibody (AAA125707) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



FCM/FACS (Flow Cytometry)

Figure 1. Flow Cytometry analysis of CACO-2 cells using anti-Claudin 7/CLDN-7 antibody (AAA125707). Overlay histogram showing CACO-2 cells stained with AAA125707 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Claudin 7/CLDN-7 Antibody (AAA125707, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL INFORMATION

Related Product Information for anti-CLDN7 antibody	Claudin-7 is a protein that in humans is encoded by the CLDN7 gene. This gene encodes a member of the claudin family. Claudins are integral membrane proteins and components of tight junction strands. Tight junction strands serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets, and also play critical roles in maintaining cell polarity and signal transductions. This gene is expressed constitutively in the mammary epithelium throughout development, and might be involved in vesicle trafficking to the basolateral membrane. It is essential for NaCl homeostasis in distal nephrons. The knockout mice lacking this gene showed severe salt wasting, chronic dehydration, and growth retardation, and died within 12 days after birth. Alternatively spliced transcript variants have been found for this gene.
References	1. Coyne, C. B., Gambling, T. M., Boucher, R. C., Carson, J. L., Johnson, L. G. Role of claudin interactions in airway tight junctional permeability. Am. J. Physiol. Lung Cell. Molec. Physiol. 285: L1166-L1178, 2003. 2. Kominsky, S. L., Argani, P., Korz, D., Evron, E., Raman, V., Garrett, E., Rein, A., Sauter, G., Kallioniemi, O. -P., Sukumar, S. Loss of the tight junction protein claudin-7 correlates with histological grade in both ductal carcinoma in situ and invasive ductal carcinoma of the breast. Oncogene 22: 2021-2033, 2003. 3. Morita, K., Furuse, M., Fujimoto, K., Tsukita, S. Claudin multigene family encoding four-transmembrane domain protein components of tight junction strands. Proc. Nat. Acad. Sci. 96: 511-516, 1999.

NCBI AND UNIPROT INFORMATION

NCBI GI #	297206811
NCBI GeneID	1366
NCBI Accession #	NP_001171951.1
NCBI GenBank Nucleotide #	NM_001185022.1
UniProt Accession #	O95471; Q6IPN3; Q7Z4Y7; Q9BVN0; B2R9X7; D3DTP0
Molecular Weight	22,418 Da
NCBI Official Full Name	claudin-7 isoform 1
NCBI Official Synonym Full Names	claudin 7
NCBI Official Symbol	CLDN7
NCBI Official Synonym Symbols	CLDN-7; CEPTRL2; CPETRL2; Hs.84359; claudin-1
NCBI Protein Information	claudin-7; clostridium perfringens enterotoxin receptor-like 2
UniProt Protein Name	Claudin-7
UniProt Gene Name	CLDN7
UniProt Synonym Gene Names	CEPTRL2; CPETRL2; CLDN-7
UniProt Entry Name	CLD7_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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