

# Claudin 1 Monoclonal Antibody (2H10D10)

Product Details	
Size	100 µg
Species Reactivity	Dog, Human, Mouse, Rat
Published Species	Dog, Rabbit, Rat, Pig, Human, Mouse, Chicken, Rhesus monkey
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	2H10D10
Conjugate	Unconjugated
Immunogen	Synthetic peptide derived from the C-terminal region of the human and mouse claudin-1 proteins
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.4
Contains	0.1% sodium azide
Storage conditions	Maintain refrigerated at 2-8°C for up to 1 month. For long term storage store at -20°C
RRID	AB_2533323

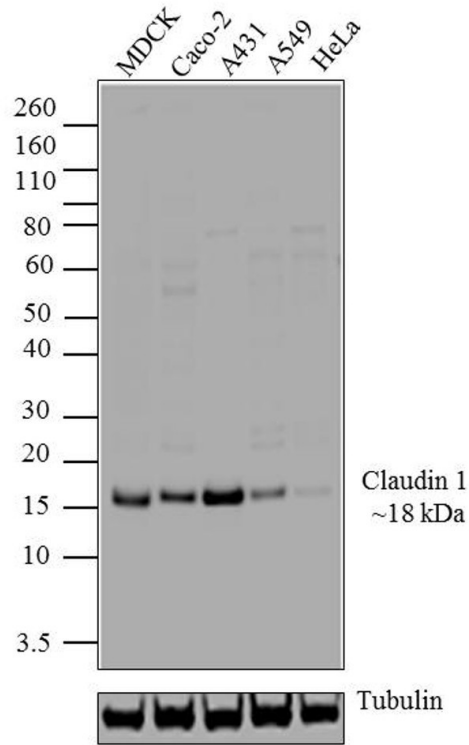
Applications	Tested Dilution	Publications
Western Blot (WB)	1-3 µg/mL	48 Publications
Immunohistochemistry (IHC)	-	14 Publications
Immunohistochemistry (Paraffin) (IHC (P))	Assay-dependent	6 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	5-10 µg/mL	1 Publication
Immunocytochemistry (ICC/IF)	1-5 µg/mL	22 Publications
Flow Cytometry (Flow)	-	1 Publication
ELISA (ELISA)	0.1-1.0 µg/mL	-
Immunoprecipitation (IP)	10 µg/test	-
Miscellaneous PubMed (Misc)	-	16 Publications

## Product Specific Information

Reactivity has been confirmed with human Caco-2 and canine MDCK cell lysates, mouse kidney and intestinal lysates, frozen mouse intestine (jejunum) tissue, and rat kidney homogenates.

This antibody is specific for the C-terminal region of the claudin-1 protein. On western blots, it identifies the target band at ~22 kDa.

Product Images For Claudin 1 Monoclonal Antibody (2H10D10)

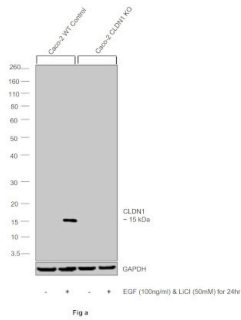


Claudin 1 Antibody (37-4900) in WB

Western blot analysis of Claudin-1 was performed by loading 20 µg of MDCK (lane1), Caco-2 (lane2), A431 (lane3), A549 (lane4) and HeLa (lane5) cell lysates using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0321BOX), XCell SureLock Electrophoresis System (Product # EI0002), Novex® Sharp Pre-Stained Protein Standard (LC5800), and iBlot® Dry Blotting System (IB21001). Proteins were transferred to a nitrocellulose membrane and blocked with 5 % skim milk at 4°C overnight. Claudin-1 was detected at ~18 kDa using Claudin-1 Mouse Monoclonal Antibody (Product # 37-4900) at 1-3 µg/mL in 2.5 % skim milk for 3 hours at room temperature on a rocking platform. Goat Anti-Mouse IgG - HRP Secondary Antibody (Product # 62-6520) at 1:4000 dilution was used and chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).

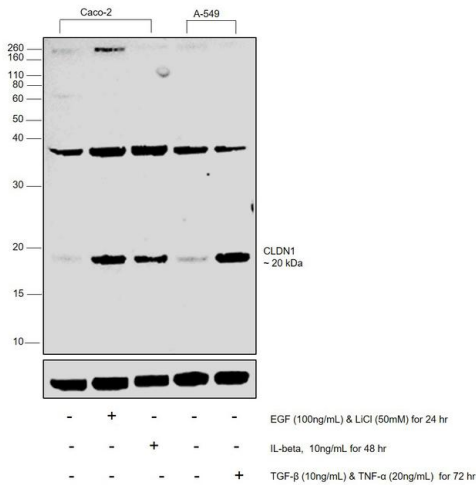
Claudin 1 Antibody (37-4900)

Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A loss of signal was observed for target protein in CLDN1 KO cell line compared to control cell line using Claudin 1 Monoclonal Antibody (2H10D10) (Product # 37-4900). {KO}



Claudin 1 Antibody (37-4900) in WB

Western blot was performed using Anti-Claudin1 Polyclonal Antibody (Product # 37-4900) and a 20 kDa band corresponding to CLDN1 was observed across cell lines tested and increased upon EGF & LiCl, IL-beta, and TNF & TGF- treatment. Membrane enriched extracts (30 µg lysate) of Caco-2 (Lane 1), Caco-2 treated with EGF (100 ng/mL) and LiCl (50 mM) simultaneously for 24 hr (Lane 2), Caco-2 treated with IL-beta (10 ng/mL for 48 hr) (Lane 3) and 25 µg lysate of A549 (Lane 4) and A549 treated with TGF-beta; (10 ng/mL) & TNF (20 ng/mL) simultaneously for 72 hr were electrophoresed using Novex® NuPAGE® 12 % Bis-Tris gel (Product # NP0342BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1 µg /mL) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1: 4,000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



View more figures on [thermofisher.com](https://thermofisher.com)

Western Blot (48)

Scientific reports	Year 2022
<b>Organotypic sinonasal airway culture systems are predictive of the mucociliary phenotype produced by bronchial airway epithelial cells.</b>	Species Human
"37-4900 was used in Western Blotting to apply a tissue engineering approach to generate organotypic sinonasal AEC (nAEC) epithelia to determine whether they are predictive of bronchial AEC (bAEC) models."	
Authors: Delhove J,Alawami M,Macowan M,Lester SE,Nguyen PT,Jersmann HPA,Reynolds PN,Roscioli E	
Biochemical and biophysical research communications	Year 2022
<b>SARS-CoV-2 spike S1 subunit protein-mediated increase of beta-secretase 1 (BACE1) impairs human brain vessel cells.</b>	Species Human
"Published figure using Claudin 1 monoclonal antibody (Product # 37-4900) in Western Blot"	
Authors: Choi JY,Park JH,Jo C,Kim KC,Koh YH	
	Dilution 1:1000

View more WB references on thermofisher.com

Immunohistochemistry (14)

Cell reports	Year 2022
<b>A mesenchymal to epithelial switch in Fgf10 expression specifies an evolutionary-conserved population of ionocytes in salivary glands.</b>	
"Published figure using Claudin 1 monoclonal antibody (Product # 37-4900) in Immunohistochemistry"	
Authors: Mauduit O,Aure MH,Delcroix V,Basova L,Srivastava A,Umazume T,Mays JW,Bellusci S,Tucker AS,Hajihosseini MK,Hoffman MP,Makarenkova HP	
Nature communications	Year 2021
<b>Modeling alpha-synuclein pathology in a human brain-chip to assess blood-brain barrier disruption.</b>	Species Human
"Published figure using Claudin 1 monoclonal antibody (Product # 37-4900) in Immunocytochemistry"	
Authors: Padiaditakis I,Kodella KR,Manatakis DV,Le CY,Hinojosa CD,Tien-Street W,Manolagos ES,Vekrellis K,Hamilton GA,Ewart L,Rubin LL,Karalis K	
	Dilution 1:25

View more IHC references on thermofisher.com

More applications with references on thermofisher.com

- IHC (P) (6)
- IHC (PFA) (1)
- IHC (F) (1)
- ICC/IF (22)
- Flow (1)
- Misc (16)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.