

For Research Use Only

Claudin 1 Recombinant monoclonal antibody, PBS Only (Capture)

Catalog Number: 87782-2-PBS



Basic Information

Catalog Number: 87782-2-PBS	GenBank Accession Number: BC012471	Purification Method: Protein A purification
Size: 100ug , Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 9076	CloneNo.: 253345A9
Source: Rabbit	UNIPROT ID: O95832	
Isotype: IgG	Full Name: claudin 1	
Immunogen Catalog Number: AG29269	Calculated MW: 211 aa, 23 kDa	
	Observed MW: 20-23 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, IF-P, Cytometric bead array, Sandwich ELISA, Indirect ELISA

Species Specificity:
human, mouse, rat

Product Information

87782-2-PBS targets Claudin 1 as part of a matched antibody pair:

MP03201-1: 87782-2-PBS capture and 87782-1-PBS detection (validated in Cytometric bead array, Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

Claudins are a family of proteins that are the most important components of the tight junctions, where they establish the paracellular barrier that controls the flow of molecules in the intercellular space between the cells of an epithelium. 23 Claudins have been identified. They are small (20-27 kilodaltons (kDa)) proteins with similar structures. They have four transmembrane domains, with the N-terminus and the C-terminus in the cytoplasm. Claudin-1 is an integral membrane protein expressed primarily in keratinocytes and normal mammary epithelial cells. Claudin 1 forms tight junctions with other claudin proteins and plays an important role in the intestinal epithelial barrier.

Storage

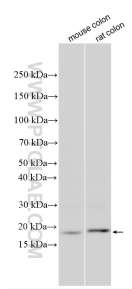
Storage:
Store at -80°C.

Storage Buffer:
PBS only, pH7.3

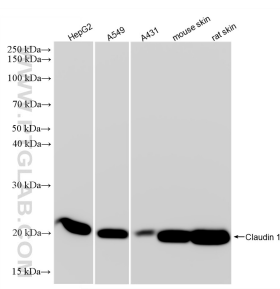
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

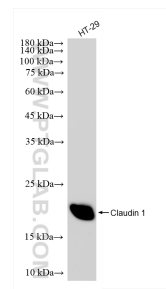
Selected Validation Data



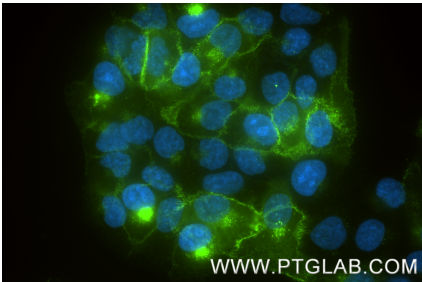
Various lysates were subjected to SDS PAGE followed by western blot with 87782-2-RR (Claudin 1 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87782-2-PBS in a different storage buffer formulation.



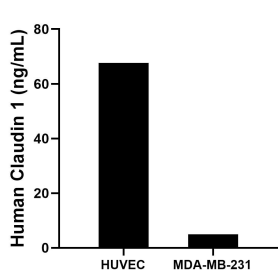
Various lysates were subjected to SDS PAGE followed by western blot with 87782-2-RR (Claudin 1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87782-2-PBS in a different storage buffer formulation.



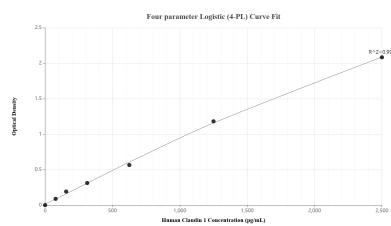
HT-29 cells were subjected to SDS PAGE followed by western blot with 87782-2-RR (Claudin 1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87782-2-PBS in a different storage buffer formulation.



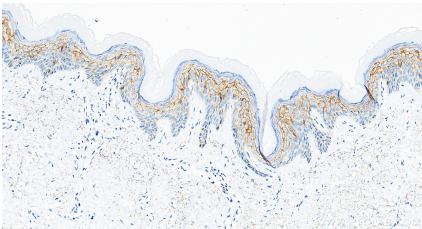
Immunofluorescent analysis of (-20°C Methanol) fixed HaCaT cells using Claudin 1 antibody (87782-2-RR, Clone: 253345A9) at dilution of 1:1000 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 87782-2-PBS in a different storage buffer formulation.



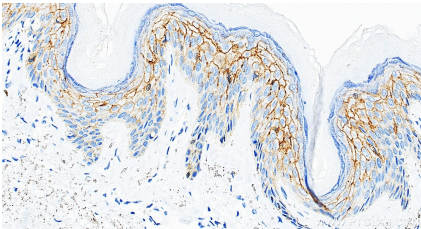
The mean Claudin 1 concentration was determined to be 67.6 ng/mL in HUVEC cell extract based on a 1.5 mg/mL extract load and 5.0 ng/mL in MDA-MB-231 cell extract based on a 1.2 mg/mL extract load.



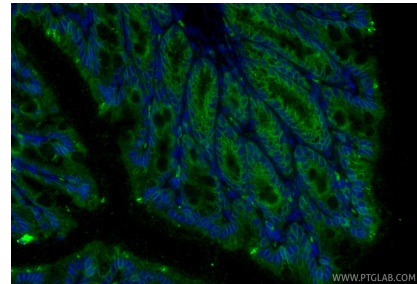
Sandwich ELISA standard curve of MP03201-1, Human Claudin 1 Recombinant Matched Antibody Pair - PBS only. 87782-2-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag29269. 87782-1-PBS was HRP conjugated as the detection antibody. Range: 78.1-2500 pg/mL



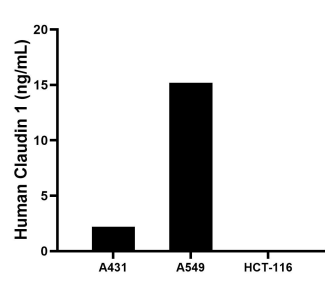
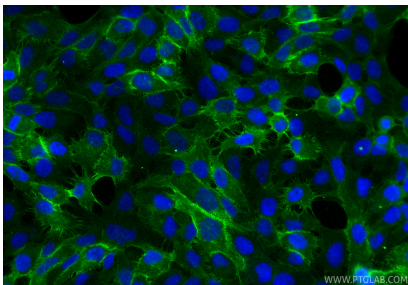
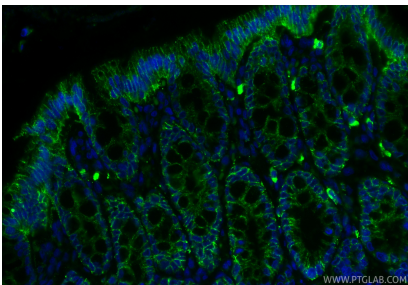
Immunohistochemical analysis of paraffin-embedded human skin tissue slide using 87782-2-RR (Claudin 1 antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 87782-2-PBS in a different storage buffer formulation.



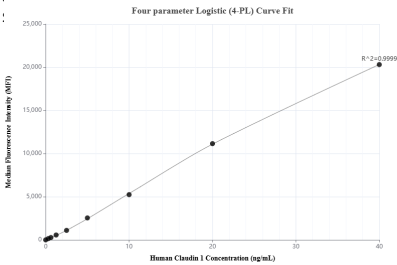
Immunohistochemical analysis of paraffin-embedded human skin tissue slide using 87782-2-RR (Claudin 1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 87782-2-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse colon tissue using Claudin 1 antibody (87782-2-RR, Clone: 253345A9) at dilution of 1:1000 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 87782-2-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded rat colon tissue using Claudin 1 antibody (87782-2-RR, Clone: 253345A9) at dilution of 1:1000 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same



Cytometric bead array standard curve of MP03201-1, Claudin 1 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 87782-2-PBS. Detection antibody: 87782-1-PBS. Standard: Ag29269. Range: 0.312-40 ng/mL

Immunofluorescent analysis of (-20°C Ethanol) fixed HaCaT cells using Claudin 1 antibody (87782-2-RR, Clone: 253345A9) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 87782-2-PBS in a different storage buffer formulation.

The mean Claudin 1 concentration was determined to be 2.2 ng/mL in A431 cell extract based on a 1.5 mg/mL extract load, 15.2 ng/mL in A549 cell extract based on a 1.2 mg/mL extract load, HCT-116 cell extract were served as a negative control.