Datasheet for 600-401-AL5

CLDN1 Antibody

Overview

Description:	Anti-CLDN1 (RABBIT) Antibody - 600-401-AL5
Item No.:	600-401-AL5
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Claudin1 (CLDN1), a member of the claudin family, is an integral membrane protein and a component of tight junction strands. Tight junctions are specialized regions of cell to cell contact consisting of networking strands that act as a molecular gasket for preventing the leakage of ions, water, etc., between cells. They are abundant in luminal epithelial sheets where they maintain epithelial cell polarity. Different tissues exhibit different Claudin composition and CLDN1 expression is often cell type and tissue dependent. Loss of function mutations result in neonatal ichthyosis-sclerosing cholangitis syndrome. CLDN1 and CLDN2 were found to be overexpressed in colonal cancer tissues and may be useful as tumor markers and targets for the treatment of colorectal cancer. Characterization of Claudins expression in human tumors can be an additional diagnostic tool. Recent studies show that CLDN1 has gastric tumor suppressive activity and is a direct transcriptional target of RUNX3. Along with SCARB1, LDL-R, and the tetraspanin superfamily member CD81, CLDN1 has been reported to be an entry factor for the Hepatitis C virus.
Synonyms:	CLDN1 Antibody, CLD1, SEMP1, ILVASC, CLD1, UNQ481/PRO944, Claudin-1, Senescence-associated epithelial membrane protein
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CLDN1

Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-CLDN1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 20 amino acid synthetic peptide near the C-terminus of human CLDN1.
Purity/Specificity:	Anti-CLDN1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with CLDN1 from other sources has not been determined.
Relevant Links:	• UniProtKB - O95832 • GeneID - 9076 • NCBI - CAG33419

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-CLDN1 Antibody has been tested for use in ELISA, Western Blotting, Immunocytochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 23 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:20,000
IF:	20 µg/mL
WB:	1-2 µg/mL

Formulation

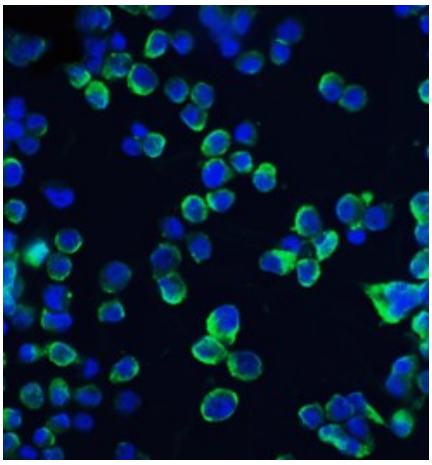
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

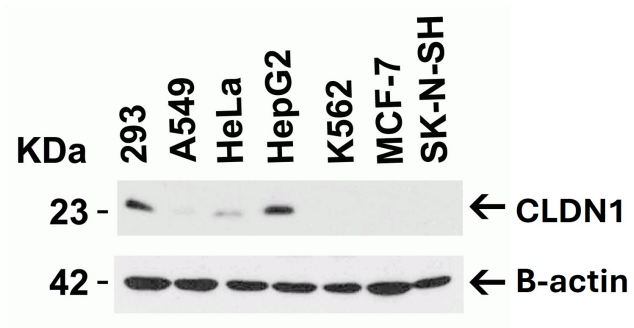
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

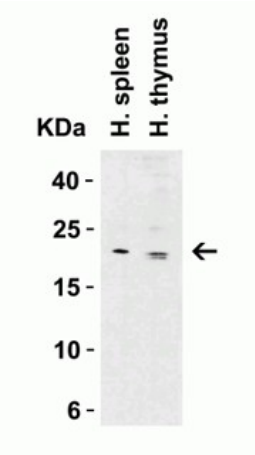
Images



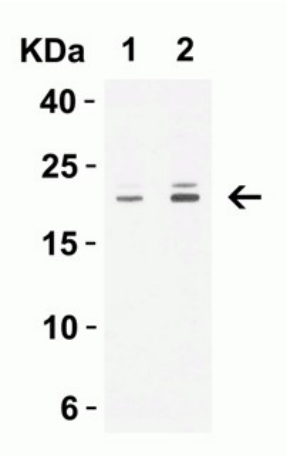
Immunofluorescence Microscopy
Immunofluorescence Validation of CLDN1.
Immunofluorescent analysis of 4% paraformaldehyde-fixed HepG2 cells labeling CLDN1 at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).



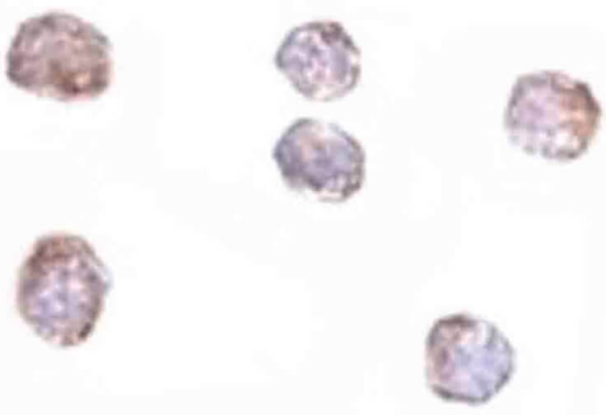
Western Blot
Western Blot using CLDN1. Loading: 15 µg of human cell line lysates per lane. Antibodies: CLDN1, (1 µg/mL) and beta-actin (1 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



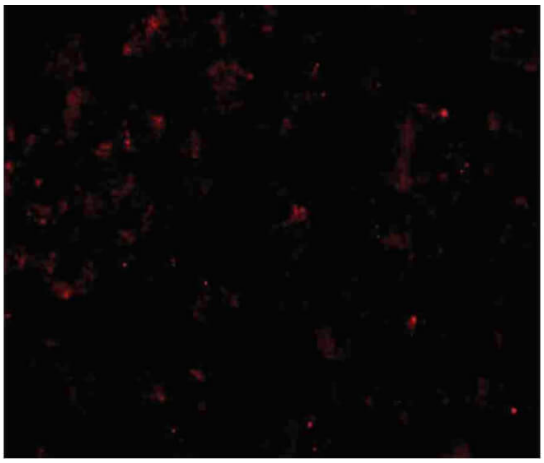
Western Blot
Western Blot Validation using CLDN1. Loading: 15 µg of human tissue lysates per lane. Antibodies: CLDN1, (1 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



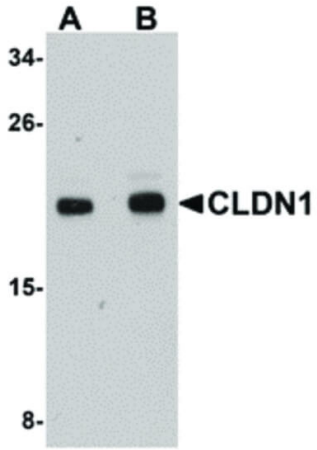
Western Blot
Western Blot Validation using CLDN1. Loading: 15 µg of human tissue lysates per lane. Antibodies: CLDN1, (1 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Immunohistochemistry
Immunocytochemistry of CLDN1 antibody. Tissue: HepG2 cells. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: CLDN1 antibody at 5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: CLDN1 is a multiple pass membrane protein. Staining: CLDN1 as precipitated blue signal with brown counterstain.



Immunofluorescence Microscopy
Immunofluorescence Microscopy ofCLDN1 antibody. Tissue: HepG2 cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: CLDN1 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: CLDN1 is a multiple pass membrane protein. Staining: CLDN1 as red fluorescent signal .



Western Blot
Western Blot of CLDN1 antibody. Lane 1: HepG2 cell lysate with CLDN1 antibody at 1 µg/mL. Lane 2: HepG2 cell lysate with CLDN1 antibody at 2 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 23 kDa, 21 kDa for CLDN1. Other band(s): CLDN1 splice variants and isoforms.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.