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antibody and ELISA experts

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Anti-CDCP1 Antibody Picoband™

Catalog Number: PB9933

About CDCP1

CUB domain-containing protein 1 (CDCP1) is a protein that in humans is encoded by the CDCP1 gene. It has also been designated as CD318 (cluster of differentiation 318) and Trask (Transmembrane and associated with src kinases). CDCP1/Trask is a 140 kD transmembrane glycoprotein with a large extracellular domain (ECD) containing two CUB domains, and a smaller intracellular domain (ICD) containing five tyrosines. The tyrosine phosphorylation of Trask is tightly regulated and reciprocally linked with the state of cell adhesion. The tyrosine phosphorylation of CDCP1 in cultured cells occurs when cells are induced to detach by trypsin or EDTA, or seen spontaneously during mitotic detachment. The overexpression of CDCP1 leads to the loss of cell adhesion and a detached phenotype. CDCP1 is widely expressed in human epithelial tissues, but its phosphorylation is only seen in mitotically detached or shedding cells, consistent with its role in the negative regulation of cell adhesion.

Overview

Product Name	Anti-CDCP1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CDCP1 Antibody Picoband™ catalog # PB9933. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9H5V8

Technical Details

Immunogen	E. coli-derived human CDCP1 recombinant protein (Position: R582-T667). Human CDCP1 shares 84.5% amino acid (aa) sequence identity with mouse CDCP1.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Flow Cytometry, 1-3ug/1x10^6 cells, Human

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Anti-CDCP1 Antibody Picoband™ (PB9933) Images

Figure 1. Western blot analysis of CDCP1 using anti-CDCP1 antibody (PB9933).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: SW620 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CDCP1 antigen affinity purified polyclonal antibody (Catalog # PB9933) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CDCP1 at approximately 130 kDa. The expected band size for CDCP1 is at 93 kDa.

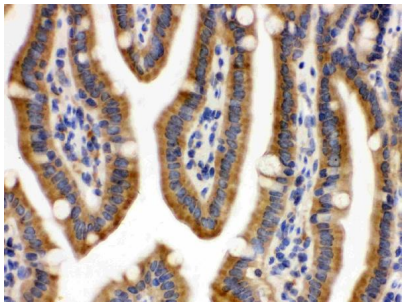

Figure 2. IHC analysis of CDCP1 using anti-CDCP1 antibody (PB9933).
CDCP1 was detected in a paraffin-embedded section of mouse intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-CDCP1 Antibody (PB9933) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

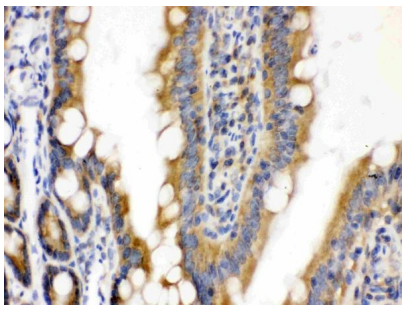

Figure 3. IHC analysis of CDCP1 using anti-CDCP1 antibody (PB9933).
CDCP1 was detected in a paraffin-embedded section of rat intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-CDCP1 Antibody (PB9933) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of CDCP1 using anti-CDCP1 antibody (PB9933).
CDCP1 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval

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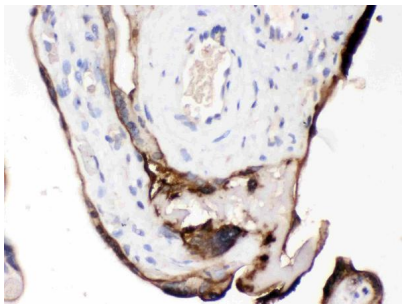

solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-CDCP1 Antibody (PB9933) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

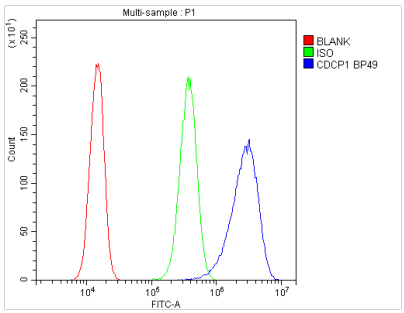

Figure 5. Flow Cytometry analysis of PC-3 cells using anti-CDCP1 antibody (PB9933).
Overlay histogram showing PC-3 cells stained with PB9933 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CDCP1 Antibody (PB9933,1ug/1x10^6 cells) for 30 min at 20°C. DyLight488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.