

## Anti-Zonula occludens protein 3/TJP3 Antibody Picoband®

Catalog Number: PA1972

### About TJP3

TJP3 (TIGHT JUNCTION PROTEIN 3), also called ZO3, is a protein that in humans is encoded by the TJP3 gene. TJP3 is a member of the family of membrane-associated guanylate kinase-like proteins (MAGUK) that associate with intracellular junctions (Itoh et al., 1999). Haskins et al. (1998) showed that recombinant Tjp3 binds in vitro translated Tjp1 and binds directly to the cytoplasmic tail of occludin but no binding was detected between Tjp3 and Tjp2. Roh et al. (2002) determined that Tjp3 interacted with PATJ (INADL) and that both proteins colocalized to tight junctions in vivo. In vitro studies showed that the sixth and eighth PDZ domains of PATJ mediated interaction with the Tjp3 C-terminal domain and with Cldn1, respectively.

### Overview

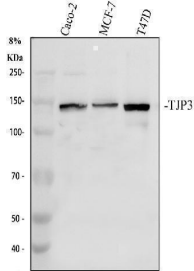
Product Name	Anti-Zonula occludens protein 3/TJP3 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Zonula occludens protein 3/TJP3 Antibody catalog # PA1972. Tested in Flow Cytometry, ICC/IF, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
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	O95049

### Technical Details

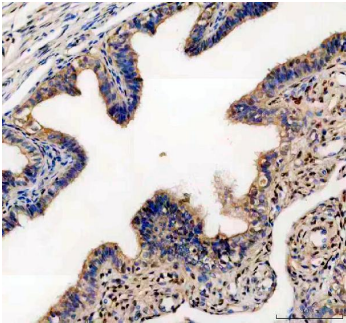
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Zonula occludens protein 3.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry(Fixed), 1-3 ug/1x10 <sup>6</sup> cells, Human

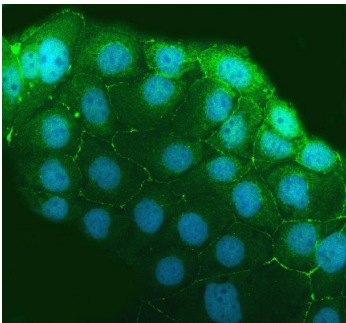
## Anti-Zonula occludens protein 3/TJP3 Antibody Picoband® (PA1972) Images



Western blot analysis of TJP3 using anti-TJP3 antibody (PA1972). Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Caco-2 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human T-47D 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-TJP3 antigen affinity purified polyclonal antibody (PA1972) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for TJP3 at approximately 130-140 kDa. The expected band size for TJP3 is at 101 kDa.

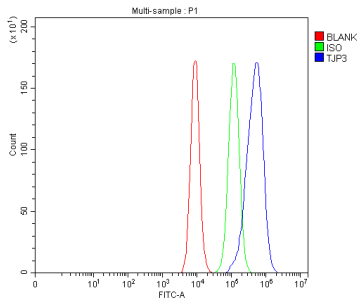


IHC analysis of TJP3 using anti-TJP3 antibody (PA1972). TJP3 was detected in a paraffin-embedded section of human fallopian tube tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TJP3 Antibody (PA1972) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of TJP3 using anti-TJP3 antibody (PA1972). TJP3 was detected in an immunocytochemical section of CACO-2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-TJP3 Antibody (PA1972) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Flow Cytometry analysis of CACO-2 cells using anti-TJP3 antibody (PA1972). Overlay histogram showing CACO-2 cells stained with PA1972 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-TJP3 Antibody (PA1972, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488



conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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### Anti-Zonula occludens protein 3/TJP3 Antibody

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