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Anti-TJP1 Picoband Antibody

Catalog # ABO11925

Specification

Anti-TJP1 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q07157
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Tight junction protein ZO-1(TJP1) detection. Tested with WB, IHC-P in Human;Mouse:Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-TJP1 Picoband Antibody - Additional Information

Gene ID 7082

Other Names
Tight junction protein ZO-1, Tight junction protein 1, Zona occludens protein 1, Zonula occludens protein 1, TJP1, ZO1

Calculated MW
195459 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction, tight junction. Cell junction. Cell junction, gap junction. Moves from the cytoplasm to the cell membrane concurrently with cell-cell contact. Detected at the leading edge of migrating and wounded cells.

Tissue Specificity
The alpha-containing isoform is found in most epithelial cell junctions. The short isoform is found both in endothelial cells and the highly specialized epithelial junctions of renal glomeruli and Sertoli cells of the seminiferous tubules.

Protein Name
Tight junction protein ZO-1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human TJP1 recombinant protein (Position: H1178-F1527). Human TJP1 shares 82% amino acid (aa) sequence identity with mouse TJP1.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the MAGUK family.

Anti-TJP1 Picoband Antibody - Protein Information

Name TJP1 (HGNC:11827)

Function
TJP1, TJP2, and TJP3 are closely related scaffolding proteins that link tight junction (TJ) transmembrane proteins such as claudins, junctional adhesion molecules, and occludin to the actin cytoskeleton (PubMed:7798316, PubMed:9792688). Forms a multistranded TJP1/ZO1 condensate which elongates to form a tight junction belt, the belt is anchored at the apical cell membrane via interaction with PATJ (By similarity). The tight junction acts to limit movement of substances through the paracellular space and as a boundary between the compositionally distinct apical and basolateral plasma membrane domains of epithelial and endothelial cells. Necessary for lumenogenesis, and particularly efficient epithelial polarization and barrier formation (By similarity). Plays a role in the regulation of cell migration by targeting CDC42BPB to the leading edge of migrating cells (PubMed:21240187). Plays an important role in podosome formation and associated function, thus regulating cell adhesion and matrix remodeling (PubMed:20930113). With TJP2 and TJP3, participates in the junctional retention and stability of the transcription factor DBPA, but is not involved in its shuttling to the nucleus (By similarity). May play a role in mediating cell morphology changes during ameloblast differentiation via its role in tight junctions (By similarity).

Cellular Location
Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction, tight junction. Cell junction. Cell junction, gap junction. Cell projection, podosome. Note=Moves from the cytoplasm to the cell membrane concurrently with cell-cell contact (PubMed:7798316). Forms a condensed tight junction-linked belt of protein during junction formation which becomes anchored to the apical cell membrane via interaction with PATJ (By similarity). At podosomal sites, is predominantly localized in the ring structure surrounding the actin core (PubMed:20930113). Colocalizes with SPEF1 at sites of cell- cell contact in intestinal epithelial cells (PubMed:31473225) {ECO:0000250|UniProtKB:O97758, ECO:0000269|PubMed:20930113, ECO:0000269|PubMed:31473225, ECO:0000269|PubMed:7798316}

Tissue Location
The alpha-containing isoform is found in most epithelial cell junctions. The short isoform is found

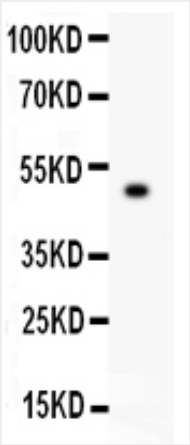
both in endothelial cells and the highly specialized epithelial junctions of renal glomeruli and Sertoli cells of the seminiferous tubules

Anti-TJP1 Picoband Antibody - Protocols

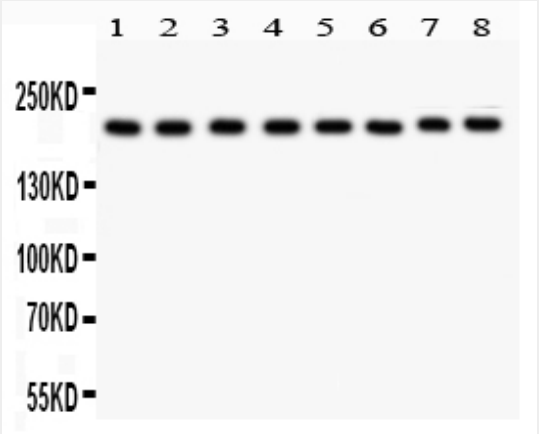
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-TJP1 Picoband Antibody - Images



Anti- TJP1 antibody, ABO11925, Western blottingAll lanes: Anti TJP1 (ABO11925) at 0.5ug/mlWB: Recombinant Human TJP1 Protein 0.5ngPredicted bind size: 48KDObserved bind size: 48KD



Anti- TJP1 antibody, ABO11925, Western blottingAll lanes: Anti TJP1 (ABO11925) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Mouse Liver Tissue Lysate at 50ugLane 3: NRK Whole Cell Lysate at 40ugLane 4: PC-12 Whole Cell Lysate at 40ugLane 5: HELA Whole Cell Lysate at 40ugLane 6: SMMC Whole Cell Lysate at 40ugLane 7: HEPA Whole Cell Lysate at 40ugLane 8:

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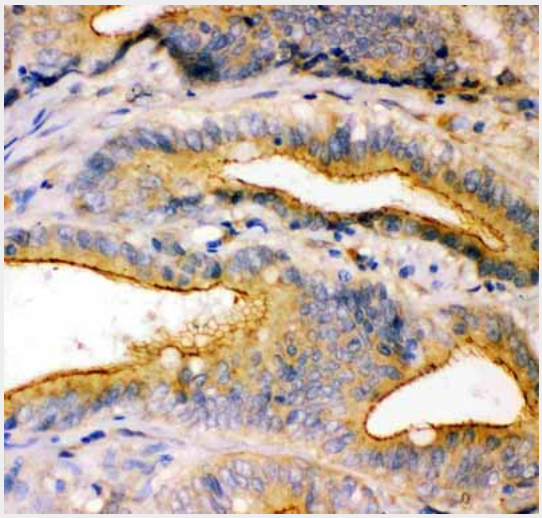
COLO320 Whole Cell Lysate at 40ugPredicted bind size: 195KDObserved bind size: 195KD



Anti- TJP1 antibody, ABO11925, IHC(P)IHC(P): Human Intestinal Cancer Tissue

Anti-TJP1 Picoband Antibody - Background

Tight junction protein ZO-1 is a protein that in humans is encoded by the TJP1 gene. It is mapped to 15q13.1. This gene encodes a protein located on a cytoplasmic membrane surface of intercellular tight junctions. The encoded protein may be involved in signal transduction at cellâ€“cell junctions. It has been found that injected CagA associates with the epithelial tight-junction scaffolding protein TJP1 and the transmembrane protein junctional adhesion molecule, causing an ectopic assembly of tight junction components at sites of bacterial attachment, and altering the composition and function of the apical-junctional complex.