

Anti-TJP1 Picoband Antibody

Catalog # ABO11925

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.

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
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.
Source	Eukaryota
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.

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

Background

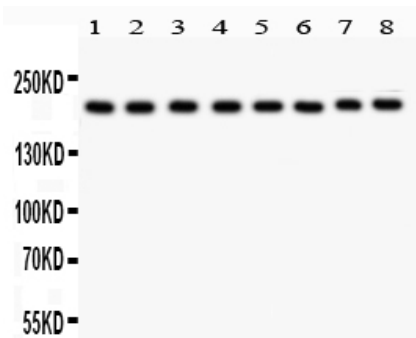
Tight junction protein ZO-1 is a protein that in humans is encoded by the TJP1 gene. It is mapped to 15q13.1. This gene encodes a protein located on a cytoplasmic membrane surface of intercellular tight junctions. The encoded protein may be involved in signal transduction at cell-cell junctions. It has 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.

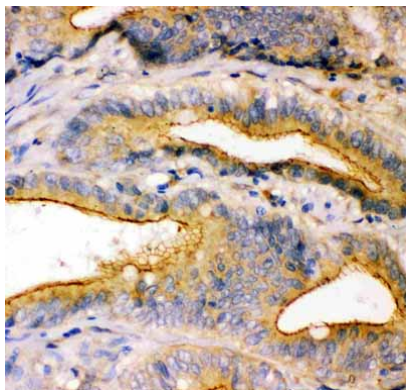
Images



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



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.