TJP2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TJP2, Polyclonal Antibody
Full Product Name	TJP2, CT (TJP2, X104, ZO2, Tight junction protein ZO-2, Tight junction protein 2, Zona occludens protein 2, Zonula occludens protein 2) (MaxLight 650)
Product Gene Name	anti-TJP2 antibody
Product Synonym Names	TJP2; X104; ZO2; Tight junction protein ZO-2; Tight junction protein 2; Zona occludens protein 2; Zonula occludens protein 2
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	133,958 Da
OMIM	607709
3D Structure	ModBase 3D Structure for Q9UDY2
Immunogen	TJP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 980-1009 amino acids from the C-terminal region of human TJP2.
Conjugate	MaxLight650
Note	Preservative Free
Product Categories/Family for anti-TJP2 antibody	Antibodies; Connexin; Junction Proteins
Applications Tested/Suitable for anti-TJP2 antibody	Western Blot (WB), FLISA
Application Notes for anti-TJP2 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-TJP2 antibody	This gene encodes a zonula occluden that is a member of the membrane-associated guanylate kinase homolog family. The encoded protein functions as a component of the tight junction barrier in epithelial and endothelial cells and is necessary for proper assembly of tight junctions. Mutation in this gene have been identified in patients with hypercholanemia. Alternate splicing results in multiple transcript variants.
Product References and Citations for anti-TJP2 antibody	Lechuga, S., et al. Exp. Cell Res. 316(19):3124-3139(2010). Remue, E., et al. FEBS Lett. 584(19):4175-4180(2010). Walsh, T., et al. Am. J. Hum. Genet. 87(1):101-109(2010). Meerschaert, K., et al. Cell. Mol. Life Sci. 66(24):3951-3966(2009). Fanning, A.S., et al. Ann. N. Y. Acad. Sci. 1165, 113-120 (2009).

Other Notes	Small volumes of anti-TJP2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for TJP2 purchase	MBS6355720 is an antibody targeting TJP2. Also known as TJP2, CT (TJP2, X104, ZO2, Tight junction protein ZO-2, Tight junction protein 2, Zona occludens protein 2, Zonula occludens protein 2) (MaxLight 650). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TJP2. It may not necessarily be applicable to this product.

NCBI GI #	42518070
NCBI GeneID	9414
NCBI Accession #	NP_004808.2
NCBI Related Accession #	NP_001164101.1
UniProt Primary Accession #	Q9UDY2
UniProt Secondary Accession #	Q15883; Q5VXL0; Q5VXL1; Q8N756; Q8NI14; Q99839; A2A3H9; B7Z2R8; B7Z7T6; F5H301; F5H886
UniProt Related Accession #	Q9UDY2
GenBank Nucleotide #	NM_004817.3
NCBI Official Full Name	tight junction protein ZO-2 isoform 1
NCBI Official Synonym Full Names	tight junction protein 2
NCBI Official Symbol	TJP2
NCBI Official Synonym Symbols	ZO2; X104; PFIC4; DFNA51; DUP9q21.11; C9DUPq21.11
UniProt Protein Name	Tight junction protein ZO-2
UniProt Synonym Protein Names	Tight junction protein 2; Zona occludens protein 2; Zonula occludens protein 2
Protein Family	Tight junction protein
UniProt Gene Name	TJP2
UniProt Synonym Gene Names	X104; ZO2
UniProt Entry Name	ZO2_HUMAN
NCBI Protein Information	tight junction protein ZO-2; zona occludens 2; zonula occludens protein 2; Friedreich ataxia region gene X104 (tight junction protein ZO-2)
NCBI Summary for TJP2	This gene encodes a zonula occluden that is a member of the membrane-associated guanylate kinase homolog family. The encoded protein functions as a component of the tight junction barrier in epithelial and endothelial cells and is necessary for proper assembly of tight junctions. Mutations in this gene have been identified in patients with hypercholanemia, and genomic duplication of a 270 kb region including this gene causes autosomal dominant deafness-51. Alternatively spliced transcripts encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Nov 2011]

UniProt Comments for TJP2	ZO2: a scaffolding protein of the MAGUK (membrane-associated guanylate kinase) family associated with epithelial tight junctions (TJ). May mediate dynamic changes in the composition of TJs. Plays a role in tight junctions and adherens junctions. Forms homodimers, and heterodimer with ZO-1 and ZO-3. The ZOs shuttle between the TJ and the nucleus, where they may regulate gene expression. Interacts with occluding, UBN1 and scribble. Interacts with SAFB in the nucleus. TJ, or zonula occludens, are the closely associated areas of two cells whose membranes are tightly joined together. They are composed of a branching network of strands, the efficiency of which increases exponentially with the number of strands. The strands associate with transmembrane proteins that bind to similar proteins on adjacent cells, and with submembranous proteins that are anchored to the actin component of the cytoskeleton. Thus, TJs join together the cytoskeletons of adjacent cells. They endow tissues with substantial form, shape and location, enforce cellular polarity, and form barriers to molecules and pathogens. Molecules forming the membranous part of TJs include occludin, claudins, tricellulin and junctional adhesion molecules. These molecules interact with the proteins ZO-1, ZO-2 and ZO-3. Tight junction proteins are involved in the epithelial-mesenchymal transitions (EMT) in tumors. Five isoforms of the human protein are produced by alternative promoters. Isoform A1 is abundant in the heart and brain. Detected in brain and skeletal muscle. It is present almost exclusively in normal tissues. Isoform C1 is expressed at high level in the kidney, pancreas, heart and placenta. Not detected in brain and skeletal muscle. Found in normal as well as in most neoplastic tissues.. Protein type: Motility/polarity/chemotaxis; Adaptor/scaffold Chromosomal Location of Human Ortholog: 9q13-q21 Cellular Component: nucleoplasm; tight junction; adherens junction; cytoplasm; plasma membrane; cell junction; cytosol Molecular Function: protein binding, bridging; protein C-terminus binding; protein domain specific binding; guanylate kinase activity; protein binding Biological Process: response to organic substance; apoptosis; cell structure disassembly during apoptosis; nucleotide phosphorylation; intestinal absorption Disease: Hypercholanemia, Familial; Cholestasis, Progressive Familial Intrahepatic, 4
Research Articles on TJP2	**1.** Protein-truncating mutations in the tight junction protein 2 gene cause failure of protein localization and disruption of tight-junction structure, leading to severe cholestatic liver disease.
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