

Product datasheet for **SC309896**

TJP1 (NM_175610) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TJP1 (NM_175610) Human Untagged Clone
Tag:	Tag Free
Symbol:	TJP1
Synonyms:	ZO-1
Vector:	<u>pCMV6 series</u>

Fully Sequenced ORF: >NCBI ORF sequence for NM_175610, the custom clone sequence may differ by one or more nucleotides

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ATGTCCGCCAGAGCTGCGGCCGCCAAGAGCACAGCAATGGAGGAAACAGCTATATGGGAA
CAACATACAGTGACGCTTACAGGGCTCCTGGATTTGGATTTGGAATTGCAATATCTGGT
GGACGAGATAATCCTCATTTTCAGAGTGGGGAAACGTCAATAGTGATTTTCAGATGTGCTG
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GTTTCAATGGATAATGTTGAACATGCTTTTGTGTTTCAGCAACTAAGGAAAAGTGGGAAA
AATGCAAAAATTACAATTAGAAGGAAGAAGAAAGTTCAAATACCAGTAAGTCGTCCTGAT
CCTGAACCAAGTATCTGATAATGAAGAAGATAGTTATGATGAGGAAATACATGATCCAAGA
AGTGGCCGGAGTGGTGTGGTTAACAGAAGGAGTGAAGAAGATTTGGCCGAGGGATAGAAGT
GCAAGTAGAGAGAGGAGCTTGTCCCGCGGTGACAGCGCGGTGAGTGGCTTCCAGCCAG
CCTGCTAAACCTACTAAAGTCACACTGGTAAAATCCCGGAAAAATGAAGAATATGGTCTT
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GGCAATATTCAAGAAGGTGATGTTGATTGAAGATAAATGGTACTGTGACAGAAAATATG
TCATTGACAGATGCAAGACATTGATAGAAAGGTCTAAAGGCAAAATAAAAATGGTAGTT
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GCTAATGCCTCTGAGAGAGACGACATTTTCAGAAAATTCAGTCACTGGCATCAGATCATTCT
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GAGCAGCTAGCCAGTGTACAGTATACACTTCCAAAAACAGCAGGCGGAGACCGTGCTGAC
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 TTGTCCGCTCAGCCTGTTCAAACAAAGTTTCCAGCTTATGAAAGAGTGGTTCTTCGAGAA
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 ACTCCAGCATAAATCGATTACACCAAAAACCATATAAAGTTCTGCCGACCATTTGAA
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 CCTGACTTGTCTTCAAAAACCTCCACTTCTCAAAAACCTTGTGAAATCGCACAGTTTG
 GCACAGCCTCCTGAGTTTACAGTGGAGTTGAACTTTCTCTATCCATGCAGAGAAGCCT
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 GTGGAAGAGGATGAAGATGAAGATGGTCATACTGTGGTGGCCACAGCCCAGGCATATTT
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 GGAGCCATTTCCGAAGGAGTTGAGCAGGAAATCTATTTCAAGGTCTGCCGGGACAACAGC
 ATCCTTCCACCTTAGATAAAGAGAAAGGTGAAACACTGCTGAGTCTTTGGTGTGTGT

GGTCCCCATGGCCTCAAGTTCCTGAAGCCTGTGGAGCTGCGCTTACCACACTGTGATCCT
 AAAACCTGGCAAAACAAGTGTCTTCCCGGAGATCCAAATTATCTCGTTGGAGCAAACCTGT
 GTTTCTGCCTTATTGACCACTTTTAA

Restriction Sites: Please inquire

ACCN: NM_175610

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_175610.1](#), [NP_783297.1](#)

RefSeq Size: 6931 bp

RefSeq ORF: 5007 bp

Locus ID: 7082

UniProt ID: [Q07157](#)

Cytogenetics: 15q13.1

Protein Families: Druggable Genome

Protein Pathways: Adherens junction, Epithelial cell signaling in Helicobacter pylori infection, Gap junction, Tight junction, Vibrio cholerae infection

Gene Summary:

This gene encodes a member of the membrane-associated guanylate kinase (MAGUK) family of proteins, and acts as a tight junction adaptor protein that also regulates adherens junctions. Tight junctions regulate the movement of ions and macromolecules between endothelial and epithelial cells. The multidomain structure of this scaffold protein, including a postsynaptic density 95/disc-large/zona occludens (PDZ) domain, a Src homology (SH3) domain, a guanylate kinase (GuK) domain and unique (U) motifs all help to co-ordinate binding of transmembrane proteins, cytosolic proteins, and F-actin, which are required for tight junction function. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2017]

Transcript Variant: This variant (2, also known as ZO-1 alpha-) lacks an alternate in-frame exon in the central coding region, compared to variant 1, resulting in an isoform (b) that is shorter than isoform a. Isoform b is found in both endothelial cells and the highly specialized epithelial junctions of renal glomeruli and sertoli cells of the seminiferous tubules. The exon combination of this variant is inferred based on partial transcript alignments and data in PMID:1590354.