

## Product datasheet for MC224900

### Tjp1 (NM\_009386) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tjp1 (NM_009386) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Tjp1
Synonyms:	ZO1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224900 representing NM_009386 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTCCGCCAGGGCCGCGCCGCTAAGAGCACAGCAATGGAGGAAACAGCTATATGGGAACAGCACACAG  
TGACGCTTCACAGGGCTCCTGGTTTGGATTTGGAATTGCAATCTCTGGTGAAGAGATAATCCTCATT  
TCAGAGTGGGAAACCTCCATAGTGATTTCTGATGTGTTAAAAGGAGGGCCAGCTGAAGGACAGCTACAG  
GAAAATGACCGAGTTGCAATGGTTAACGGAGTTTCAATGGATAACGTTGAACATGCTTTTCTGTTTCAGC  
AGCTAAGGAAGAGTGGGAAAAACGCAAAAATTACTATCCGAAGGAAGAAGAAAGTTTCAGATCCCTGTAAG  
TCACCCAGATCCTGAGCCGGTGTCTGATAATGAAGACGATAGTTATGACGAAGAAGTGCATGACCCAAGA  
GCTGGCCGCGGTGCTTTAGCGAACAGAGGAGCGAGAAGAGCTGGGCAAGGGATAGGAGTGAAGCAGGG  
AGAGGAGCCTGTCCCCTCGCTCGGACAGGCGGTCCGTGGCCTCCAGTCAGCCCGCAAAGCCACCAAGGT  
CACACTGGTGAAGTCTCGGAAAAATGAAGAATATGGTCTTCGATTGGCCAGCCATATATTTGTAAGGAA  
ATTTACAAGATAGTTTGGCAGCAAGAGATGGTAACATTCAAGAAGGGGATGTTGCTTTGAAGATAAATG  
GTACTGTGACAGAAAATATGTCATTGACAGATGCAAAAACACTGATAGAAGGCTAAAGGCAAGTTAAA  
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ATGACAGGCCACCCCGCCGAGCCAGTCACGATCTCCTGACCAACGTTTCAGAGCCCTCCGATCATTCCAC  
GCAGTCTCCACAGCAGCCAGCAATGGCAGTCTCCGGAGCAGAGAGGAAGAGCGAATGTCTAAACCTGGG  
GCCATCTCAACTCCTGTAACATGTAGACGATCATCCACCAAAGCAGTGAAGAAGTTACAGTTGAGA  
AAAATGAGAAGCAGACGCCCACTCTCCAGAACCAGAACCTGTGTATGCTCAAGTTGGACAACCAGATGT  
GGATTTACCCGTCAGCCCTTCTGATGGTCTCTGCCTAATTCAGCTCATGAAGACGGGATACTTAGGCC  
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TCTCAGGGTGAACAATGTAGATTTCAAAATATCATAAGGGAAGAGGCCGCTCTTTCTCCTTGACCTC  
CCTAAAGGTGAAGAAGTGACCATACTGGCTCAGAAGAAGAAGGACGTTTATCGCCGATTGTAGAATCAG



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ATGTAGGAGATTCATTCTATATTAGAACGCATTTTGAATATGAAAAAGAATCTCCTTACGGACTTAGTTT  
 TAACAAAGGAGAGGTGTTCCGGGTCGTGGATACTTTATACAATGGAAAGCTGGGCTCTTGGCTTGCCATT  
 CGAATTGGCAAAAATCATAAGGAGGTAGAACGAGGCATCATCCCTAATAAGAACAGAGCTGAACAGTTAG  
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 TCGCAGCTCCAAGAGAAATCTTCGAAAAAGCAGAGAGGACTTGTGAGTCTAGCCAGTTCAAACCTAAGTTC  
 CCAGCTTATGAAAGGTTGTTCTTCGAGAAGCTGGATTCTAAGACCTGTAACCATCTTTGGACCAATAG  
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 GATAAACATGCTTTATTAGATGTAAACGCCAAATGCGGTTGATCGTCTTAATTATGCGCAGTGGTATCCAA  
 TTGTTGTGTTCTTAACCCTGACTCTAAGCAAGGTGTA AAAACAATGAGGATGAGGTTGTGTCCGGAGTC  
 TCGGAAAAGCGCCAGGAAGCTATATGAACGCTCTCATAAGCTTCGTAAGAACAATCACCATCTCTTCA  
 ACTACAATTAACCTAACTCAATGAATGATGGTTGGTACGGTGCCTGAAAGAAGCGATTTCAGCAGCAAC  
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 AATGCATCATGAAAACCAGACATACCCTCTTACTCACCACAAGCGCAGCCACAAGCTATTCATAGAATA  
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 GCAGCTCACGTAGTGTGCTCAGAGGTGAAGGACCACCTTGGCCGCATGCAGACCCAGCAAAGGTGTACA  
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 AGGGCAGAGCCAGATAAAGAGCAAACTAGCCTATGAACCCAACTCCATATATAGAAAACAAGCC  
 AGCAGAGACCTTGAGCAGCCGTACATACAGGTATGAGGTCTCAAGCTACACAGACCAATTTCTCGGAAT  
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 ACAGCCCTACCAACCTCGGCCTTTTGAAGATCAGCATCCCCGAGACCTGGACTCCAGACAACATCCCGAA  
 GAGGCTTCAGAACGAGGTTATTTCCAGCGTTTTGAAGAGCCAGCCCTCTGTGTCGACGACAGTAGAACAC  
 GCTATGAGCAGCTGCCTCGAACCTTACTCTACGACATGAAGAGCAGCCAGCCCTGCATATGAGGTGCA  
 CAACAGGTACAGGCCAGAGGCACAGCCCTATTCTTCAACAGGCCCTAAGTCACTGAGCCCAAGCAGTAC  
 TTTGACCAGTACCCGGAAGTTATGAGCAAGTTCACCACCAGGCTTTACCTCCAAAACAGGCCATTACG  
 AGCCTCTCCATGGTGTGCTGCAAGTGTCCCTCTCTGATACCTTCTCTCAACAAAAGCCAGAAAGTCTGCC  
 CTGGGCTACCAAACCACAGCCTCCACCCCAACCTAAGTGAAGGAGGAGGATCCAGCAATGAAACCA  
 CAGTCTGTGCTCACCAGAGTCAAATGTTTGAACAAAAGATCTGCGTCTTTGGAGAACAAGAAAGATG  
 TGAATGACACTGCCAGCTTTAAGCCTCCGGAAGTAGCATCTAAACCTCCAGGTGCTTCTCTTGTGGCCC  
 TAAACCTGTCCCTCAGAGTCAAGTTAGTGAAGCAGCAAAAACGCTCTACAGGCTCCAGAGCCTCAGAAA  
 CCTCAAGTGAAGCCACCCGAAGATATTGTTTCGATCAAAATCATTACGACCTGAAGAGGATGAAGAATATT  
 ACCGAAAACAGCTCTCTACTTTGACCGAAGAAGTTTTGAGAGCAAGCCTTCTGCACATCTTCTGCTGG  
 CCATCACTCAGAGCCTGCTAAGCCAGTCCATTCTCAGAGCCAGCCCAACTTCTCTAGTACTCTTCAAAG  
 GGAACCCGAAACTGATGCTGTGGATAGATCATTCAAGTGAAGAACTGATGATCCAGCCAGCCAGCCAGC  
 CTCTCTCTCCGTTGCCCTCACAGTACAGCCAGCCAGCTCCACCTCTGTCCAGCTCTTCTCTCCACAT  
 ACATTCGAAGGGCGCCAGGGTGAAGGCAACTCAGTATCATTGGATTTTCAAGAACTCATATATGTCCAAA  
 CCAGACCCACCCCATCTCAGAGTAAACCAGCAACTTTTACAGACCACCAACTCGAGAAGACCCCTCAGA  
 CTTTCTATCCGCAGAAAAGTTTCCAGACAAAAGCTCCAGTTAACGGAGCTGAGCAGACTCAGAAAACCAT  
 CACTCCGGTGTACAATCGATTACACCAAAGCCGTACACAAGTTCTGCCCGGCCATTTGAACGCAAAATTT  
 GAAAGTCCGAAGTTCAACCAATAATCTTCTGCCAAGTGAAGTGTACATAAACCTGAATTGTCTTCAAAA  
 CTCCCACTTCCCAAAAACCTTATGAAAGCTCATAGTTCAACACAGCCTCCAGAGTTTGCAGTGGAGT  
 TGAACCTTCTCTGTTTACACAGATAAGCCTAAATATCAATGAATAATATCAGCACCATGCCTAAAGCT  
 GTCCCTGTGAGTCTTACAGTGTGGAAGAAGATGAAGATGAGGATGGTCACTGTAGTGGCTACAGCTC  
 GTGGCATTTTTAAACAGCAATGGTGGTGTGTTGAGTTCCATAGAAAACCGGTGTTAGTATAATTATCCACA  
 AGGAGCCATTCTGAAGGAATTGAGCAAGAAATCTATTTCAAAGTCTGCAGAGACAATAGCATTCTCCCA  
 CCTTTAGATAAAGAGAAAAGGTGAAACTCTGCTGAGCCCCCTAGTGTGTTGGGCCCATGGCCTCAAGT  
 TCCTGAAGCCCGTGGAGCTACGCTTGCCACACTGTGACCTAAAACCTGGCAAAAACAGTGTCTTCTCGG

AGATCCGAATTACCTTGTGGAGCCAACACTGTGTTTCTGTCTGATTGACCACTTTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_009386
<b>Insert Size:</b>	5238 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_009386.2</u> , <u>NP_033412.2</u>
<b>RefSeq Size:</b>	7054 bp
<b>RefSeq ORF:</b>	5238 bp
<b>Locus ID:</b>	21872
<b>UniProt ID:</b>	<u>P39447</u>
<b>Cytogenetics:</b>	7 35.02 cM

**Gene Summary:**

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 (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 (By similarity). Plays an important role in podosome formation and associated function, thus regulating cell adhesion and matrix remodeling (By similarity). With Tjp2 and Tjp3, participates to the junctional retention and stability of the transcription factor Dbpa, but is not involved in its shuttling to the nucleus (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes the longer isoform (1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.