

## Product datasheet for MC224825

### Tjp1 (NM\_001163574) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tjp1 (NM_001163574) 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:	>MC224825 representing NM_001163574 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTCCGCCAGGGCCGCGCCGCTAAGAGCACAGCAATGGAGGAAACAGCTATATGGGAACAGCACACAG  
TGACGCTTCACAGGGCTCCTGGTTTGGATTTGGAATTGCAATCTCTGGTGAAGAGATAATCCTCATT  
TCAGAGTGGGAAACCTCCATAGTGATTTCTGATGTGTTAAAAGGAGGGCCAGCTGAAGGACAGCTACAG  
GAAAATGACCGAGTTGCAATGGTTAACGGAGTTTCAATGGATAACGTTGAACATGCTTTTGCTGTTACAG  
AGCTAAGGAAGAGTGGGAAAAACGCAAAAATTACTATCCGAAGGAAGAAGAAAGTTTCAGATCCCTGTAAG  
TCACCCAGATCCTGAGCCGGTGTCTGATAATGAAGACGATAGTTATGACGAAGAAGTGCATGACCCAAGA  
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AGAGGAGCCTGTCCCCTCGCTCGGACAGGCGGTCCGTGGCCTCCAGTCAGCCCGCAAAGCCACCAAGGT  
CACACTGGTGAAGTCTCGGAAAAATGAAGAATATGGTCTTCGATTGGCCAGCCATATATTTGTAAGGAA  
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GTACTGTGACAGAAAATATGTCATTGACAGATGCAAAAACACTGATAGAAGGCTAAAGGCAAGTTAAA  
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GCAGTCTCCACAGCAGCCAGCAATGGCAGTCTCCGGAGCAGAGAGGAAGAGCGAATGTCTAAACCTGGG  
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GGATTTACCCGTCAGCCCTTCTGATGGTCTCTGCCTAATTCAGCTCATGAAGACGGGATACTTAGGCC  
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TCTCAGGGTGAACAATGTAGATTTACAAAATATCATAAGGGAAGAGGCCGCTCTTTCTCCTTGACCTC  
CCTAAAGGTGAAGAAGTGACCATACTGGCTCAGAAGAAGAAGGACGTTTATCGCCGATTGTAGAATCAG



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ATGTAGGAGATTCATTCTATATTAGAACGCATTTTGAATATGAAAAAGAATCTCCTTACGGACTTAGTTT  
TAACAAAGGAGAGGTGTTCCGGGTCGTGGATACTTTATACAATGGAAAGCTGGGCTCTTGGCTTGCCATT  
CGAATTGGCAAAAATCATAAGGAGGTAGAACGAGGCATCATCCATAAAGAACAGAGCTGAACAGTTAG  
CCAGTGTACAGTACACTTCCAAGACAGCGGGTGGTATCGGGCAGACTTCTGGAGGTTTCGAGGTCT  
TCGCAGCTCCAAGAGAAATCTTCGAAAAAGCAGAGAGGACTTGTACAGCTCAGCCAGTTCAAACCTAAGTTC  
CCAGCTTATGAAAGGGTGTCTTCGAGAAGCTGGATTCTAAGACCTGTAACCATCTTTGGACCAATAG  
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GACAAAACCATATTTTAAAAACAACAGCTCTTGGTCAACCAGGGCAGAGGCCAGATAAAGAGCCAAATCT  
AGCCTATGAACCCCAACTTCCATATATAGAAAAACAAGCCAGCAGAGACCTTGAGCAGCCGTCATACAGG  
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TCCCTACCTATGAAGACCAGTGGTCAATATGATGACAAACAGCCCTACCAACCTCGGCCCTTTTGAGAA  
TCACATCCCCGAGACCTGGACTCCAGACAACATCCCCAAGAGGCTTCAGAACGAGGTTATTTCCAGCGT  
TTTGAAGAGCCAGCCCTCTGTGCTACGACAGTAGAACACGCTATGAGCAGCTGCCTCGAACCTCTACTC  
TACGACATGAAGAGCAGCCAGCCCTGCATATGAGGTGCACAACAGGTACAGGCCAGAGGCACAGCCCTA  
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CTCTGATACCTTCTCTCAACAAAAGCCAGAAGTCTGCCCTCGGCTACCAAACACAGCCTCCACCCCC  
AACCTAACTGAGGAGGAGGAGGATCCAGCAATGAAACCACAGTCTGTGCTCACCAGAGTCAAAATGTTT  
GAAAACAAAAGATCTGCGTCTTTGGAGAACAAGAAAGATGTGAATGACACTGCCAGCTTTAAGCCTCCGG  
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GCACGACAAAACGCTCTACAGGCTCCCAGAGCCTCAGAAAACCTCAAGTGAAGCCACCCGAAGATATTGTT  
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GAAGTTTTGAGAGCAAGCCTTCTGCACATCTTCTGCTGGCCATCACTCAGAGCCTGCTAAGCCAGTCCA  
TTCTCAGAGCCAGCCCAACTTCTCTAGTTACTCTTCAAAGGGAAAACCCGAAACTGATGCTGTGGATAGA  
TCATTCAGTGAGAAAAGTTATGATCCAGCCAGGCCACGCTCCTCCTCCTCCGTTGCCCTCACAGTACA  
GCCAGCCAGCTCCACCTGTCCAGCTCTTCTCCTCACATACATTCCAAGGGCGCCAGGGTGAAGGCAA  
CTCAGTATCATTGGATTTTCAGAACTCATATATGTCCAAACCAGACCCACCCCATCTCAGAGTAAACCA  
GCAACTTTCAGACCACCAACTCGAGAAGACCCCTCAGACTTTCTATCCGCAGAAAAGTTCCAGACA  
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GCCGTACACAAGTTCTGCCCGGCCATTTGAACGCAAAATTTGAAAGTCCGAAGTTCAACCATAATCTTCTG  
CCAAGTAAAACCTGTACATAAACCTGAATTTGCTTCAAAAACCTCCCACTTCCCAAAAACCTTATGAAAG  
CTCATAGTTCAACACAGCCTCCAGAGTTTGACAGTGGAGTTGAAACTTTCTGTTCACACAGATAAGCC  
TAAATATCAAATGAATAATATCAGCACCATGCCTAAAGCTGTCCCTGTGAGTCTTACAGTGTGGAAGAA  
GATGAAGATGAGGATGGTCACTGTAGTGGCTACAGCTCGTGGCATTTTAACAGCAATGGTGGTGTGT  
TGAGTTCCATAGAAAACCGGTGTTAGTATAATTATCCACAAGGAGCCATTCTGAAGGAATTGAGCAAGA  
AATCTATTTCAAAGTCTGCAGAGACAATAGCATTCTCCACCTTTAGATAAAGAGAAAAGGTGAAACTCTG  
CTGAGCCCTTAGTGATGTGTGGCCCATGGCTCAAGTTCTGAAGCCGTTGGAGCTACGCTTGCAC  
ACTGTGCTCCATGACTCCTGACGGTGGTCTTTTGTCTAAAATCATCCGACTCCTCGTGGGTGACCC  
TAAAACCTGGCAAAAACAGTGTCTTCTGGAGATCCGAATTACCTTGTGGAGCCAACTGTGTTTCTGTC  
CTGATTGACCACTTTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_001163574

**Insert Size:** 5058 bp

**OTI Disclaimer:** 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).

**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\\_001163574.1](#), [NP\\_001157046.1](#)

**RefSeq Size:** 6891 bp

**RefSeq ORF:** 5058 bp

**Locus ID:** 21872

**Cytogenetics:** 7 35.02 cM

**Gene Summary:** Tjp1, TjpP2, 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 Tjpp3, 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 (2) lacks an in-frame coding exon in the middle region but has an additional in-frame segment in the 3' coding region, as compared to variant 1. The resulting isoform (2) is shorter than isoform 1.