

Product datasheet for **SC127835**

TJP1 (NM_003257) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TJP1 (NM_003257) Human Untagged Clone
Tag:	Tag Free
Symbol:	TJP1
Synonyms:	ZO-1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_003257, the custom clone sequence may differ by one or more nucleotides

```

ATGTCCGCCAGAGCTGCGGCCGCCAAGAGCACAGCAATGGAGGAAACAGCTATATGGGAACACATACAG
TGACGCTTCACAGGGCTCCTGGATTTGGATTTGGAATTGCAATATCTGGTGGACGAGATAATCCTCATT
TCAGAGTGGGAAACGTCAATAGTGATTTGATGCTGAAAGGAGGACCAGCTGAAGGACAGCTACAG
GAAAATGACCGAGTTGCAATGGTTAACGGAGTTTCAATGGATAATGTTGAACATGCTTTTCTGTTGAGC
AACTAAGGAAAAGTGGGAAAAATGCAAAAATTACAATTAGAAGGAAGAAGAAAGTTCAAATACCAGTAAG
TCGTCCTGATCCTGAACAGTATCTGATAATGAAGAAGATAGTTATGATGAGGAAATACATGATCCAAGA
AGTGGCCGGAGTGGTGTGGTTAACAGAAGGAGTGAGAAGATTTGGCCGAGGGATAGAAGTCAAGTAGAG
AGAGGAGCTTGTCCCGCGGTGACAGAGCGGTGACAGTGGCTTCCAGCCAGCCTGCTAAACCTACTAAAGT
CACACTGGTGAATCCCGGAAAAATGAAGAATATGGTCTTCGATTGGCAAGCCATATATTTGTTAAGGAA
ATTTACACAAGATAGTTTGGCAGCAAGAGATGGCAATATTCAAGAAGGTGATGTTGTATTGAAGATAAATG
GTACTGTGACAGAAAATATGTCATTGACAGATGCAAAAGACATTGATAGAAAGGTCTAAAGGCAAATTA
AATGGTAGTTCAAAGAGATGAACGGGCTACGCTATTGAATGTCCCTGATCTTTCTGACAGCATCCACTCT
GCTAATGCCTCTGAGAGAGACGACATTTAGAAATTCAGTCACTGGCATCAGATCATTCTGGTCGATCAC
ACGATAGGCCTCCCGCCGAGCCGAGTCCAGTCTCCTGACCAGCGGTGACAGCCTTCTGATCATTCCAG
GCACTCGCCGACGAGCAAGCAATGGCAGTCTCCGGAGTAGAGATGAAGAGAGAATTTCAAACCTGGG
GCTGTCTCAACTCTGTAAGCATGCTGATGATCACACACCTAAAACAGTGAAGAAGTTACAGTTGAAA
GAAATGAGAAAACAAACACCTTCTCTCCAGAACCAAAGCCTGTGTATGCCCAAGTTGGGCAACCAGATG
GGATTTACCTGTGAGTCCATCTGATGGTGTCTACCTAATTCAACTCATGAAGATGGGATTCTTCGGCCC
AGCATGAAATGGTAAAATTCAGAAAAGGAGATAGTGTGGGTTTGGCGCTGGTGGTGAATGATGTTG
GAATTTGTAGCTGGCCTTCTAGAAGTAGCCCTGCAGCAAGGAAGGCTTAGAGGAAGGTGATCAAAT
TCTCAGGGTAAACAACGTAGATTTTACAAATATCATAAGAGAAGAAGCCGCTTTTCTGCTTGACCTC
CCTAAAGGAGAAGAAGTGACCATATTGGCTCAGAAGAAGAAGGATGTTTATCGTCGATTGTAAGTCA
ATGTAGGAGATTCTTTATATTAGAACCATTTGAATATGAAAAGGAATCTCCCTATGGACTTAGTT

```



View online »

TAACAAAGGAGAGGTGTTCCGTGTTGTGGATACCTTGTACAATGGAAAACCTGGGCTCTTGCTTGCATT
 CGAATTGGTAAAAATCATAAGGAGGTAGAACGAGGCATCATCCCTAATAAGAACAGAGCTGAGCAGCTAG
 CAGTGTACAGTATACACTTCCAAAAACAGCAGGCGGAGACCGTCTGACTTCTGGAGATTGAGAGGTCT
 TCGCAGCTCCAAGAGAAATCTTCGAAAAAGCAGAGAGGATTTGTCGCTCAGCCTGTTCAAACAAAGTTT
 CCAGCTTATGAAAGAGTGGTTCTTCGAGAAGCTGGATTCTGAGGCCTGTAACCATTTTTGGACCAATAG
 CTGATGTTGCCAGAGAAAAGCTGGCAAGAGAAGAACCAGATATTTATCAAATTGCAAAGAGTGAACCAGC
 AGACGTGGAACGACCAACGTAGCTGCGCATTATTCGCCTGCATACAATAAAGCAAATCATAGATCAA
 GACAAACATGCTTTATTAGATGTAACACCAAATGCAGTTGATCGCTTAACTATGCCAGTGGTATCCAA
 TTGTTGATTTCTTAACCCTGATTCTAAGCAAGGAGTAAAAACAATGAGAATGAGGTTATGTCCAGAATC
 TCGAAAAAGTGCCAGGAAGTTATACGAGCGATCTCATAAACTTCGTAATAAATCAACCATCTTTTTACA
 ACTACAATTAACCTAAATTCATGAATGATGGTTGGTATGGTGCCTGAAAGAAGCAATCAACAACAGC
 AAAACCAGCTGGTATGGTTTCCGAGGAAAGGCGGATGGTGCTACAAGTATGACCTTGATTTGCATGA
 TGATCGTCTGCTACCTGTCAGCTCCAGGTAGTGAATACTCAATGTATAGCACGGACAGTAGACACACT
 TCTGACTATGAAGACACAGACACAGAAGGCGGGCCTACACTGATCAAGAACTAGATGAACTCTTAATG
 ATGAGGTTGGGACTCCACCGGAGTCTGCCATTACACGGTCTCTGAGCCTGTAAGAGAGGACTCCTCTGG
 AATGCATCATGAAACCAAACATATCCTCCTACTCACCACAAGCGCAGCCACAACCAATTCATAGAATA
 GACTCCCTGGATTTAAGCCAGCCTCTCAACAGAAAGCAGAAGCTTCATCTCCAGTCCCTTACCTTTCCG
 CTGAAACAAACCCAGCATCATCAACCTCTGCTGTTAATCATAATGTAAATTTAACTAATGTGACTGGA
 GGAGCCACCCAGCTCCTTCCACCTCTTACTCACCACAAGCTGATTCTTTAAGAACACCAAGTACTGAG
 GCAGCTCACATAATGCTAAGAGATCAAGAACCATCATTGTCGTCGCATGTAGATCCAACAAAGGTGATA
 GAAAGGATCCATATCCCAGGAAATGATGAGGCAGAACCATGTTTTGAAACAGCCAGCCGTTAGTCAACC
 AGGCACAGGCCAGACAAAGAGCCTAATCTGACCTATGAACCCCACTCCATACGTAGAGAAACAAGCC
 AGCAGACCTCGAGCAGCCACATACAGATACGAGTCTCAAGCTATACGGACCAAGTTTCTCGAAACT
 ATGAACATCGTCTGCGATACGAAGATCGGTCCTCCATGTATGAAGAACAGTGGTCAATATTATGATGACAA
 ACAGCCCTACCATCTCGGCCACCTTTTGATAATCAGCACTCTCAAGACCTTGACTCCAGACAGCATCCC
 GAAGAGTCTCAGAACGAGGGTACTTTCCACGTTTTGAAGAGCCAGCCCTCTGTCTTACGACAGCAGAC
 CACGTTACGAACAGGCACCTAGAGCATCCGCCCTGCGGCACGAAGAGCAGCCAGCTCCTGGGTATGACAC
 ACATGGTAGACTCAGACCCGAAGCCAGCCACCCTTACAGCAGGGCCCAAGCCTGCAGAGTCCAAGCAG
 TATTTTGAGCAATATTCACGCAGTTACGAGCAAGTACCACCCCAAGGATTTACCTCTAGAGCAGGTCAAT
 TTGAGCCTCTCCATGGTCTGCAGCTGTCCCTCCGCTGATACCTTCATCTCAGCATAAGCCAGAAGCTCT
 GCCTTCAAACACCAAACTGCCTCCACCCCAACTCAAACCGAAGAAGAGGAAGATCCAGCAATGAAG
 CCACAGTCTGACTCACCAGAGTTAAGATGTTTGAACAAAAGATCTGCATCCTTAGAGACCAAGAAGG
 ATGTAATGACTGGCAGTTTTAAGCCTCCAGAAGTAGCATCTAAACCTTCAGGTGCTCCCATCATTGG
 TCCCAAACCCACTTCTCAGAATCAATTCAGTGAACATGACAAAACCTCTGTACAGGATCCCAGAACCTCAA
 AAACCTCAACTGAAGCCACCTGAAGATATTGTTCCGGTCAATCATTATGACCCTGAAGAAGATGAAGAAT
 ATTATCGAAAACAGCTGTACTTTGACCGAAGAAGTTTTGAGAATAAGCCTCCTGCACACATTGCCGC
 CAGCCATCTCTCCGAGCCTGAAAGCCAGCGCATTCTCAGAATCAATCAAATTTTTCTAGTTATTCTTCA
 AAGGAAAAGCCTCCTGAAGCTGATGGTGTGGATAGATCATTGGCGAGAAAACGCTATGAACCCATCCAG
 CCACTCCCCTCCTCCTCATTGCCCTCGCAGTATGCCAGCCATCTCAGCCTGCACCAGCAGCCTCTCT
 CCACATACATTCTAAGGGAGCACATGGTGAAGTAATTCAGTGTATTGGATTTTCAAGATTTCTTAGTG
 TCCAAACAGACCCACTCCATCTCAGAATAAGCCAGCAACTTTAGACCACCAAACCGAGAAGATACTG
 CTCAGGCAGCTTTCTATCCCGAAAAAGTTTTCCAGATAAAGCCCAAGTTAATGAACTGAACAGACTCA
 GAAAACAGTCACTCCAGCATACAATCGATTACACCAAACCATATAACAAGTTCTGCCGACCATTTGAA
 CGCAAGTTTGAAGTCTAAATTCATCACAATCTTCTGCCAAGTGAACCTGCACATAAACCTGACTTGT
 CTTCAAAAACCTCCACTTCTCAAAAACCTTGTGAAATCGCACAGTTTGGCACAGCCTCCTGAGTTTGA
 CAGTGGAGTTGAACTTTCTCTATCCATGCAGAGAAGCCTAAATATAAATAAATATCAGCACAGTG
 CCTAAAGCTATTCTGTGAGTCTTCTGAGTGTGGAAGAGGATGAAGATGAAGATGGTCACTGTGGTGG
 CCACAGCCGAGGCATATTTAACAGCAATGGGGCGTGTGAGTTCCATAGAAACTGGTGTAGTATAAT
 TATCCCTCAAGGAGCCATTCCCAGAGGAGTTGAGCAGGAAATCTATTTCAAGGTCTGCCGGACAACAGC
 ATCCTTCCACCTTAGATAAAGAGAAAGGTGAAACACTGCTGAGTCTTTGGTGTGTGTGGTCCCCATG
 GCCTCAAGTCTCTGAAGCCTGTGGAGCTGCGCTTACCACACTGTGATCCTAAAACCTGGCAAAAACAGTG
 TCTTCCGGAGATCAAATATCTCGTTGGAGCAAACCTGTGTTCTGTCTTATTGACCCTTTAA

5' Read Nucleotide Sequence:

```
>OriGene 5' read for NM_003257 unedited
GGCTTTTGTATACGACTCCTATAGGCGGCCGGAATTCGGCACGAGGGNANAACTCGGC
TCCAGTGAGGGTTCGGGGCTGGAAGCCGGCTCTCAGCGGTTCGGGGCTTGGGGTCCAC
CTCCTGCTGGCCGGGAGCTGCTGCTTTGGAGGAGTGGTTGGTCCCCGGCGAAACCTGT
AGTTTCGATCTGATGTCACCTCCCTGCGGTATGCGCACGCCAGCGATAAGGCTTTGAGACT
GCAAAACACTCCACTCAGCCTGTGAGGCGTAGTAGAGCACAGCAATGGAGGAAACAGCTA
TATGGGAACAACATACAGTGACGCTTCACAGGGCTCCTGGATTTGGATTTGGAATTGCAA
TATCTGGTGGACGAGATAATCCTCATTTTCAGAGTGGGGAACGTC AATAGTGATTTTCAG
ATGTGCTGAAAGGAGGACCAGCTGAAGGACAGCTACAGGAAAAAGACCGAGTTGCAATGG
TTAACGGAGTTTCAATGGATAATGTTGAACATGCTTTTGTGTTTCAGCAACTAAGGAAAA
GTGGGAAAAATGCAAAAATTACAATTAGAAGGAAGAAGAAAGTTTCANATACCAGTAAGTC
GTCTGATCCTGAACAGTATCTGATAATGAAGAAGATAGTTATGATGAGGAAATACATG
ATCCAAGAAGTGGCCGGAGTGGTGGTTAACAGAAGGAGTGAGAAGATTTGGCCGAGGA
TAGAAGTGCAAGTAGAGAGAGGAGCTTGTCCCGCGGTACAGACAGGCGGTGAGTGCTTC
CAGCCAGCCTGCTAAACCCTACTAAGTCACACTGGTAAAATCCCGNANAAATGAGATATG
GTCTTCGATTGGCAGCCATATATTGNTAAGGAAATTCACAAAAAGTTTGGGCAGCAGAGA
TGGCATATTCAGAGGGGATGTGATTGAGAATATGACTGGACGGAAAATGTCATGN
```

3' Read Nucleotide Sequence:

```
>OriGene 3' read for NM_003257 unedited
TTTAACANNTTGTACTTGNACCGCGCCGCTTACNANNGATCGTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTAAAAATTTTATTTTGGGAGATTAGAAATTTGAGATTTTAA
AACGGCAAAAGAAATCAGTCACACCTAATGATTAACAGAATGTAGTGGTATTATCTAA
ACAGAAATCGTGCTGATGTGCCATAATAAATTGTCTATTAGTAAAAAAAACACTTTAGGG
CACAGCATTGTATCACAATTACAGTAGGGATACTTTGCAAGAATTTAATCAAACAGAG
AATTCTGAGTAACTGTATCTTTTAAATGCAGCACTTAAAAATGTAACAACCTGTGCATC
CTTTTTCTTAAAAAAAATGACCTTGCATGTGTCATAGAAAACGCTGCTTTATTGCTGCAGA
GGTCAAAGTTCAAGGCTCAAGAGGTACAGGAGAGAATACAAAGGTAGCCTTTAGAAACGT
GGTCTTGTATGTATAAAAAAGGTAAAGTTTATAAAAAGTTAATTTACAACCAAGAACA
AAAGTGGTATGCACGCATTATGTACAAGCATCCCTTAAAAACATCAATTTTTCAAATGCA
TAGCCCCGAAGAACCAGAAACCCCGCCGCTTTGTCAAAAAAAAAAAAAAAAAAGGGAA
AGGAAAGGAAAGGAAAAATTTCCCAAATCCACCCACTATTTTTTTCTGGGGGGATAAC
CATTTTTTGAACCCCAAGGGCCAAGGTCTCCAGTCTTGGCATGGACCCGTTTTTT
CAATAAATGCCCCAAAACCTTTAAACCTTTGTTACCCAGGGGGGAATGGGCCAAAAAT
TTAAAAAACTGGGGGTAGAGGCTTTCCCGCCGGGTAAAAATTTCTCGGGGAAAAAGGG
AGAAATA
```

Restriction Sites:

NotI-NotI

ACCN:

NM_003257

Insert Size:

5000 bp

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](#)

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_003257.1](#), [NP_003248.1](#)

RefSeq Size: 7171 bp

RefSeq ORF: 5211 bp

Locus ID: 7082

UniProt ID: [Q07157](#)

Cytogenetics: 15q13.1

Domains: ZU5, PDZ, Guanylate_kin, GuKc

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 (1, also known as ZO-1alpha+) encodes isoform a, which is found in most epithelial cell junctions.