

Product datasheet for **RG222836**

TJP1 (NM_003257) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TJP1 (NM_003257) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TJP1
Synonyms:	ZO-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222836 representing NM_003257 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGTCCGCCAGAGCTGCGGCCGCAAGAGCACAGCAATGGAGGAAACAGCTATATGGGAACAACATACAGTGACGCTTCACAGGGCTCCTGGATTTGGATTTGGAATTGCAATATCTGGTGGACGAGATAATCCTCATTTCAGAGTGGGGAAACGTCAATAGTGATTCAGATGTGCTGAAAGGAGGACCAGCTGAAGGACAGCTACAGAAAATGACCGAGTTGCAATGGTTAACGGAGTTCAATGGATAATGTTGAACATGCTTTTCTGTTCCAGCACTAAGGAAAAGTGGGAAAAATGCAAAAATTACAATTAGAAGGAAGAAGAAAGTTCAAATACCAGTAAGTCGTCCTGATCCTGAACCAAGTATCTGATAATGAAGAAGATAGTTATGATGAGGAAATACATGATCCAAGAGTGGCCGGAGTGGTGTGGTTAACAGAAGGAGTGAGAAGATTTGGCCGAGGGATAGAAGTCAAGTAGAGAGGAGCTTGTCCCGCGGTACAGACAGGCGGTACGTGGCTTCCAGCCAGCCTGTAAACCTACTAAAGTCACTGGTGAATCCCGGAAAAATGAAGAATATGGTCTTCGATTGGCAAGCCATATATTTGTTAAGGAAATTTACAAGATAGTTTGGCAGCAAGAGATGGCAATATCAAGAAGGTGATGTTGATTGAAGATAAATGTACTGTGACAGAAAATATGTCATTGACAGATGCAAAAGACATTGATAGAAAGGTCTAAAGGCAAATTAATAATGGTAGTTCAAAGAGATGAACGGGCTACGCTATTGAATGTCCCTGATCTTTCTGACAGCATCCACTCTGCTAATGCCTCTGAGAGAGACGACATTTAGAAAATTCAGTCACTGGCATCAGATCATTCTGGTCGATCACACGATAGGCCTCCCGCCGCGAGCCGGTACGATCTCCTGACCAGCGGTACAGGCCTTCTGATCATTCCAGGCACTCGCCGAGCAGCAAGCAATGGCAGTCTCCGGAGTAGAGATGAAGAGAGAATTTCTAAACCTGGGGCTGTCTCAACTCCTGTAAGCATGCTGATGATCACACCTAAAACAGTGAAGAAGTTACAGTTGAAAGAAATGAGAAACAACACCTTCTCTCCAGAACCAAGCCTGTGTATGCCCAAGTTGGGCAACCAGATGTGGATTTACCTGTCAGTCCATCTGATGGTGTCTACCTAATTCAACTCATGAAGATGGGATTTCTCGGCCAGCATGAAATGGTAAAATTCAGAAAAGGAGATAGTGTGGGTTTGGCGCTGGCTGGTGGAAATGATGTTGAAATTTGTAGCTGGCGTTCTAGAAGATAGCCCTGCAGCAAGGAAGGCTTAGAGGAAGGTGATCAATCTCAGGGTAAACAACGTAGATTTACAATATCATAAGAGAAGAAGCCGTCCTTTCTGCTTGACCTC



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CCTAAAGGAGAAGAAGTGACCATATTGGCTCAGAAGAAGAAGGATGTTTATCGTCGCATTGTAGAATCAG
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG222836 representing NM_003257
 Red=Cloning site Green=Tags(s)

MSARAAAAKSTAMEETAIWEQHTVTLHRAPGFGFGIAISGGRDNPHFQSGETSIVISDVLKGGPAEQQLQ
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 RKFE SPKFNHLLPSETAHKPDLSKKTPTSPKTLVKSHSLAQPPPEFDSGVETFSIHAEKPKYQINNISTV
 PKAIPVSPSAVEEDEDGHTVVATARGIFNSGGVLSSETGVSIIPQGAIPGVEQEYFKVCRDNS
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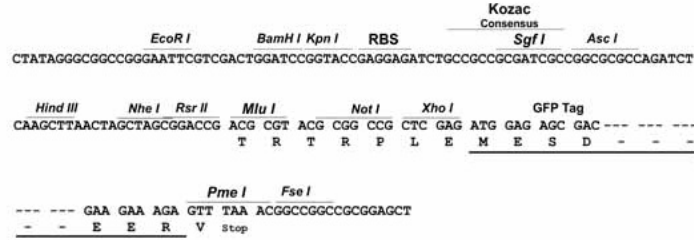
TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_003257

ORF Size: 5244 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](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_003257.3](#), [NP_003248.3](#)

RefSeq Size: 7165 bp

RefSeq ORF: 5247 bp

Locus ID: 7082

UniProt ID: [Q07157](#)

Cytogenetics: 15q13.1

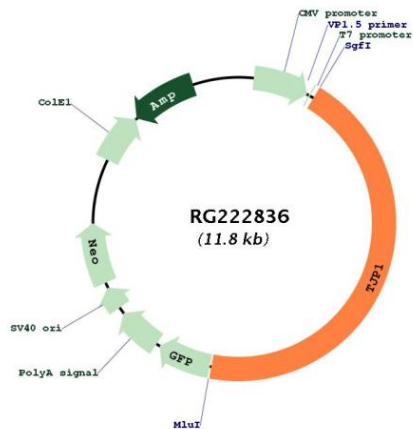
Domains: ZU5, PDZ, Guanylate_kin, GuKc

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]

Product images:

Circular map for RG222836