

## Product datasheet for **SC327958**

### TRF4 2 (PAPD5) (NM\_001040285) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TRF4 2 (PAPD5) (NM_001040285) Human Untagged Clone
Tag:	Tag Free
Symbol:	TRF4 2
Synonyms:	PAPD5; TRF4-2; TUT3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_001040285, the custom clone sequence may differ by one or more nucleotides

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ATGCGGCTCGTCCACGCTCAGCACCGGGGAAGCCGAGGCGGAGAAGCCGCGCGCCTC
AGAAGCTCCCGGACGCCAGCGGGCGCGAGCGGGCGGGCGGCGAGCAGCAGCAGCAGC
AGCACGGCCACCGGGGAGCGGCGAGCAGCACCGGCAGCCCCGGCGGGCGGGCCTCGGCC
CCGGCCCCGGCCCCGGCCGGCATGTATCGCTCCGGGAGCGCTGCTGGGCAGCCACGCG
CTGCCCGCGGAGCAGCGGGACTTCTGCCCTAGAGACGACCAACAACAACAACAACCAC
CACCAGCCCCGGGCTGGGCCCGCGGGCGGGCTCCTCGGCGTCTCGCCTCCCTCGGCG
TCCTCGTCCCGCACCTTCGGCCGCGCTCCCGCCGCGGATCCAGCCGATTCGGCCTCG
GGCAGCAGCAACAAGAGGAAGCGCGACAACAAGGCCAGCACGTATGGACTCAACTACAGC
CTGCTGCAGCCCAGCGGAGGGCGGGCCGCGGGGGCGGGCGAGCAGCGGGCGGGGTC
GTGTACAGCGGGACCCCGTGAACCGGAGGAACAACAACCAGGGAGTCGTGGTCTGCAT
GAAGAAATCAGTGATTTTTATGAATACATGTCTCAAGACCTGAGGAGGAGAAGATGCGG
ATGGAGGTGGTGAACAGGATCGAGAGTGAATTAAGGAGCTCTGGCCAGCGCTGACGTC
CAGATATTTGGAAGTTTTAAACTGGACTTTATTTACCTACTAGTGACATCGACCTAGTG
GTGTTTGGGAAGTGGGAGAACCTACCCCTCTGGACTCTGGAAGAAGCTCTTCGGAACAC
AAAGTCGCAGATGAGGATTCGGTGAAGTTTTAGACAAAGCAACTGTACCTATTATTTAA
TTAACAGATTCCTTTACTGAAGTGAAGTTGATATCAGCTTTAATGTACAGAATGGCGTG
AGAGCAGCTGACCTCATCAAAGATTTTACCAAGAAATATCCTGTATTGCCATACTTGGTT
TTAGTATTGAAACAATTCCTATTGCAGAGGGACCTTAATGAAGTATTTACAGGTGGAATT
GGTTCTTATAGTCTTTTTAATGGCAGTCAGTTTCTTACAGTTACATCCAGGGGAAGAT
GCTTGCATCCCCAATACAAACATATGGTGTCTCTTAATAGAATTTTTGAATTATATGGA
CGACACTTCAATATTTAAAGACTGGCATCCGGATAAAGGATGGTGGTTTCATATGTGCC
AAAGATGAAGTACAGAAAAATATGCTAGATGGCTACAGGCCATCAATGCTTTATATCGAA
GATCCTTTACAACCAGGTAACGATGTTGGAAGGAGTTCATATGGGGCCATGCAAGTGAAG
CAGGCCTTTGATTATGCCTACGTTGTTTTGAGTCATGCTGTATCACCAATAGCAAAGTAC
TATCCCAACAATGAAACAGAAAGCATACTAGGTAGAATAATTAGAGTAACAGATGAAGTT
GCCACATATAGAGATTGGATATCAAAGCAGTGGGGCTTGAAGAATAGACCTGAGCCTTCA
TGCAATGGTCCAGTGTCTCTCTTCTGCCACACAGTCCAGCTCTAGTGATGTAGATTCC
GATGCAACACCATGCAAAACCCGAAACAGCTGCTTTGCCGTCCGTCCACTGGGAACCGA
GTAGGGTCGCAAGATGTATCCTTGGAGTCTCTCAGGCAGTTGGGAAAAATGCAAAGCACC
CAAACCACTAACACATCCAACAGCACCAACAATCTCAGCATGGATCAGCAAGGCTCTTT
CGTTCTTCCAGCAAAGGCTTCCAAGGTACAACCAACAAGCCATGGTTCCTTGTATGACA
AACAAACAACATCAAGGCAAAATCCAATAATCAGTATTACCATGGCAAAAAGAGGAAACAC
AAGAGGGACGCGCCCTCTCAGACCTCTGTAGA
    
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**Restriction Sites:** Please inquire  
**ACCN:** NM\_001040285

**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](mailto: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\\_001040285.2](#), [NP\\_001035375.2](#)

**RefSeq Size:** 7973 bp

**RefSeq ORF:** 1956 bp

**Locus ID:** 64282

**UniProt ID:** [Q8NDF8](#)

**Cytogenetics:** 16q12.1

**Gene Summary:**

Terminal nucleotidyltransferase that catalyzes preferentially the transfer of ATP and GTP on RNA 3' poly(A) tail creating a heterogeneous 3' poly(A) tail leading to mRNAs stabilization by protecting mRNAs from active deadenylation (PubMed:21788334, PubMed:30026317). Also functions as a catalytic subunit of a TRAMP-like complex which has a poly(A) RNA polymerase activity and is involved in a post-transcriptional quality control mechanism. Polyadenylation with short oligo(A) tails is required for the degradative activity of the exosome on several of its nuclear RNA substrates. Doesn't need a cofactor for polyadenylation activity (in vitro) (PubMed:21788334, PubMed:21855801). Required for cytoplasmic polyadenylation of mRNAs involved in carbohydrate metabolism, including the glucose transporter SLC2A1/GLUT1 (PubMed:28383716). Plays a role in replication-dependent histone mRNA degradation, probably through terminal uridylation of mature histone mRNAs. May play a role in sister chromatid cohesion (PubMed:18172165). Mediates 3' adenylation of the microRNA MIR21 followed by its 3'-to-5' trimming by the exoribonuclease PARN leading to degradation (PubMed:25049417). Mediates 3' adenylation of H/ACA box snoRNAs (small nucleolar RNAs) followed by its 3'-to-5' trimming by the exoribonuclease PARN which enhances snoRNA stability and maturation (PubMed:22442037).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses an alternate in-frame splice site in the central coding region, compared to variant 1. The resulting isoform (b) lacks an internal segment, compared to isoform a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.