

Product datasheet for **RC214986**

TRF4 2 (PAPD5) (NM_001040284) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TRF4 2 (PAPD5) (NM_001040284) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TRF4 2
Synonyms:	PAPD5; TRF4-2; TUT3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214986 representing NM_001040284
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCCTCCAAGACCTGAGGAGGAGAAGATGCGGATGGAGGTGGTGAACAGGATCGAGAGTGAATTAAGG
 AGCTCTGGCCAGCGCTGACGTCCAGATATTTGGAAGTTTTAAAAGTGGACTTTATTTACCTACTAGTGA
 CATCGACCTAGTGGTGTGGGAAGTGGGAGAACCCTACCCTCTGGACTCTGGAAGAAGCTCTTCGGAAA
 CACAAAGTCGAGATGAGGATTCGGTGAAGTTTTAGACAAAGCAACTGTACCTATTATTAATAACAG
 ATTCTTTACTGAAGTGAAGTTGATATCAGCTTAAATGTACAGAATGGCGTGAGAGCAGCTGACCTCAT
 CAAAGATTTACCAAGAAATATCCTGTATTGCCATACTGGTTTTAGTATTGAAACAATTCCTATTGCAG
 AGGGACCTTAATGAAGTATTTACAGGTGGAATTGGTCTTATAGTCTCTTTTTAATGGCAGTCAGTTCC
 TTCAGTTACATCCAGGGAAGATGCTTGCATCCCAATACAACTATGGTGTCTCTTAATAGAATTTTT
 TGAAATATATGGACGACTTCAATTATTTAAAGACTGGCATCCGGATAAAGGATGGTGGTTCATATGTG
 GCCAAAGATGAAGTACAGAAAAATATGCTAGATGGCTACAGGCCATCAATGCTTTATATCGAAGATCCTT
 TACAACAGGTAACGATGTTGGAAGGAGTTCATATGGGGCCATGCAAGTGAAGCAGGCCCTTTGATTATGC
 CTACGTTGTTTTGAGTCACTGTATACCAATAGCAAAGTACTATCCCAACAATGAAACAGAAAGCATA
 CTAGGTAGAATAATTAGAGTAACAGATGAAGTTGCCACATATAGAGATTGGATATCAAAGCAGTGGGGCT
 TGAAGAATAGACCTGAGCCTTATGCAATGGAATGGTGTACCTTGATAGTAGATACTCAGCAGTTAGA
 TAAATGTAATAATAATCTATCTGAAGAAAATGAAGCCCTGGAAAATGTAGAAGTAAAACCTCGGAATCT
 CTTAGTAAACACTCTTCAAACCTTTCATCAGGTCCAGTGTGCTCCTCTTCTGCCACACAGTCCAGCTCTA
 GTGATGTAGATTCGATGCAACACCATGCAAAACCCCGAAACAGCTGCTTTGCCGTCAGTCCAGTGGAA
 CCGAGTAGGGTCGCAAGATGTATCCTTGGAGTCTCTCAGGCAGTTGGGAAAATGCAAAGCACCCAAACC
 ACTAACACATCCAACAGCACCAACAAATCTCAGCATGGATCAGCAAGGCTCTTTCGTTCTCCAGCAAAG
 GCTTCCAAGGTACAACCTCAAACAAGCCATGGTTCCTTGATGACAAACAAACAACATCAAGGCAAATCCAA
 TAATCAGTATTACCATGGCAAAAAGAGGAAACACAAGAGGGACGCGCCCTCTCAGACCTCTGTAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214986 representing NM_001040284
 Red=Cloning site Green=Tags(s)

MSPRPEEEKMRMEVVRNIESVIKELWPSADVQIFGSFKTGLYLPTSDIDL VVFGKWENLPLWTL EEALRK
 HKVADEDSVKVLDKATVPIIKL TDSFTEVKVDISFNVQNGVRAADLIKDFTKKYPVLPYLVLVLKQFLLQ
 RDLNEVFTGGIGSYSLFLMAVSFLQLHPREDACIPNTNYGVLLIEFFEL YGRHFNYLKTGIRIKDGGSYV
 AKDEVQKNMLDGYRPSMLYIEDPLQPGNDVGRSSYGAMQVKQAFDYAYVVL SHAVSPIAKYYPNNETESI
 LGRIIRVTDEVATYRDWISKQWGLKNRPEPSCNNGVTLIVDTQQLDKC>NNNLSENEALGKCRSKTSES
 LSKHSSNSSSGPVSSSATQSSSDVDSATPCKTPKQLL CRPSTGNRVGSQDVSLESSQAVGKMSTQT
 TNSNSTNKSQHG SARLFRSSSKGFQGTQTSHGSLMTNKQH QGKSNNQYYHGKRRKHKRDAPLSDLCR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6709_h08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001040284

ORF Size: 1467 bp

OTI Disclaimer: 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_001040284.1](#), [NP_001035374.1](#)

RefSeq Size: 7589 bp

RefSeq ORF: 2097 bp

Locus ID: 64282

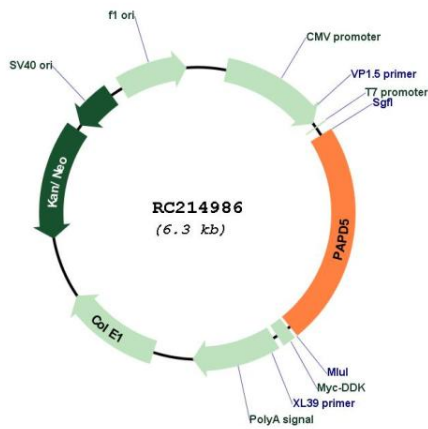
UniProt ID: [Q8NDF8](#)

Cytogenetics: 16q12.1

MW: 54.6 kDa

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]

Product images:



Circular map for RC214986