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Product datasheet for RC229323

TRF4 2 (PAPD5) (NM_001040285) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TRF4 2 (PAPD5) (NM_001040285) 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)

ORF Nucleotide Sequence:

>RC229323 representing NM_001040285
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGGCCTCGTCCACGCTCAGCACCGGGGAAGCCGAGGCGGAGAAGCCGCGCGCGCCTCAGAAGCTCCC
GGACGCCCAGCGGCGGCGCGAGCGGCGGCGGCGGCAGCAGCAGCAGCAGCACGGCCACCGGCGGGAG
CGGCAGCAGCACCGGCAGCCCCGGCGGCGCGGCCTCGGCCCCGGCCCCGGCCCCGGCCGGCATGTATCGC
TCCGGGGAGCGCCTGCTGGGCAGCCACGCGCTGCCCGCGGAGCAGCGGGACTTCCTGCCCCTAGAGACGA
CCAACAACAACAACAACCACCACCAGCCCGGGGCCTGGGCCCGCCGGGCGGGCTCCTCGGCGTCCTCGCC
TCCCTCGGCGTCCTCGTCCCCGCACCCTTCGGCCGCCGTCCCCGCCGCCGATCCAGCCGATTCGGCCTCG
GGCAGCAGCAACAAGAGGAAGCGCGACAACAAGGCCAGCACGTATGGACTCAACTACAGCCTGCTGCAGC
CCAGCGGAGGGCGGGCCGCGGGGGGCGGCCGAGCAGACGGCGGCGGGGTCGTGTACAGCGGGACCCCGTG
GAAACGGAGGAACTACAACCAGGGAGTCGTGGGTCTGCATGAAGAAATCAGTGATTTTTATGAATACATG
TCTCCAAGACCTGAGGAGGAGAAGATGCGGATGGAGGTGGTGAACAGGATCGAGAGTGTAATTAAGGAGC
TCTGGCCCAGCGCTGACGTCCAGATATTTGGAAGTTTTAAAACTGGACTTTATTTACCTACTAGTGACAT
CGACCTAGTGGTGTTTGGGAAGTGGGAGAACCTACCCCTCTGGACTCTGGAAGAAGCTCTTCGGAAACAC
AAAGTCGCAGATGAGGATTCGGTGAAAGTTTTAGACAAAGCAACTGTACCTATTATTAAATTAACAGATT
CTTTTACTGAAGTGAAAGTTGATATCAGCTTTAATGTACAGAATGGCGTGAGAGCAGCTGACCTCATCAA
AGATTTTACCAAGAAATATCCTGTATTGCCATACTTGGTTTTAGTATTGAAACAATTCCTATTGCAGAGG
GACCTTAATGAAGTATTTACAGGTGGAATTGGTTCTTATAGTCTCTTTTTAATGGCAGTCAGTTTCCTTC
AGTTACATCCCAGGGAAGATGCTTGCATCCCCAATACAAACTATGGTGTTCTCTTAATAGAATTTTTTGA
ATTATATGGACGACACTTCAATTATTTAAAGACTGGCATCCGGATAAAGGATGGTGGTTCATATGTGGCC
AAAGATGAAGTACAGAAAAATATGCTAGATGGCTACAGGCCATCAATGCTTTATATCGAAGATCCTTTAC
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CGTTGTTTTGAGTCATGCTGTATCACCAATAGCAAAGTACTATCCCAACAATGAAACAGAAAGCATACTA
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AGAATAGACCTGAGCCTTCATGCAATGGTCCAGTGTCGTCCTCTTCTGCCACACAGTCCAGCTCTAGTGA
TGTAGATTCCGATGCAACACCATGCAAAACCCCGAAACAGCTGCTTTGCCGTCCGTCCACTGGGAACCGA
GTAGGGTCGCAAGATGTATCCTTGGAGTCCTCTCAGGCAGTTGGGAAAATGCAAAGCACCCAAACCACTA
ACACATCCAACAGCACCAACAAATCTCAGCATGGATCAGCAAGGCTCTTTCGTTCTTCCAGCAAAGGCTT
CCAAGGTACAACTCAAACAAGCCATGGTTCCTTGATGACAAACAAACAACATCAAGGCAAATCCAATAAT
CAGTATTACCATGGCAAAAAGAGGAAACACAAGAGGGACGCGCCCCTCTCAGACCTCTGTAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC229323 representing NM_001040285
Red=Cloning site Green=Tags(s)

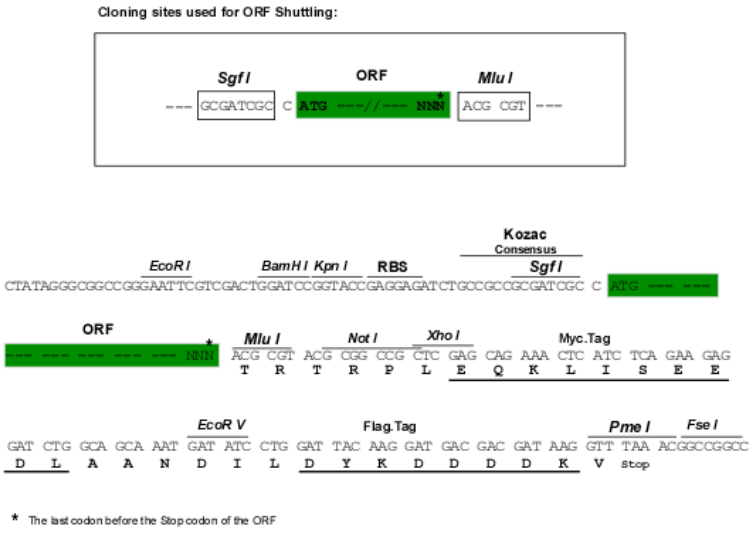
MRPRPRSAPGKPRRRSRARLRSSRTPSGGASGGGGSSSSSSTATGGSGSSTGSPGGAASAPAPAPAGMYR
SGERLLGSHALPAEQRDFLPLETTNNNNNHHQPGAWARRAGSSASSPPSASSSPHPSAAVPAADPADSAS
GSSNKRKRDNKASTYGLNYSLLQPSGGRAAGGGRADGGGVVYSGTPWKRRNYNQGVVGLHEEISDFYEYM
SPRPEEEKMRMEVVNRIESVIKELWPSADVQIFGSFKTGLYLPTSDIDLVVFGKWENLPLWTLEEALRKH
KVADEDSVKVLDKATVPIIKLTDSFTEVKVDISFNVQNGVRAADLIKDFTKKYPVLPYLVLVLKQFLLQR
DLNEVFTGGIGSYSLFLMAVSFLQLHPREDACIPNTNYGVLLIEFFELYGRHFNYLKTGIRIKDGGSYVA
KDEVQKNMLDGYRPSMLYIEDPLQPGNDVGRSSYGAMQVKQAFDYAYVVLSHAVSPIAKYYPNNETESIL
GRIIRVTDEVATYRDWISKQWGLKNRPEPSCNGPVSSSSATQSSSSDVDSDATPCKTPKQLLCRPSTGNR
VGSQDVSLESSQAVGKMQSTQTTNTSNSTNKSQHGSARLFRSSSKGFQGTTQTSHGSLMTNKQHQGKSNN
QYYHGKKRKHKRDAPLSDLCR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8071_e04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



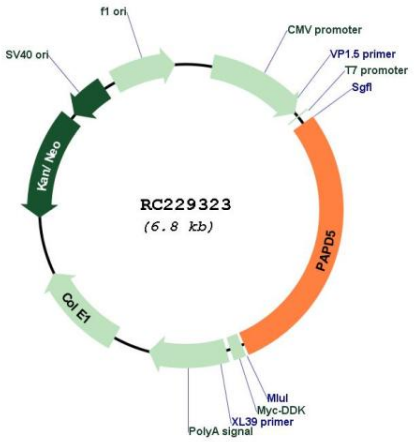
ACCN: NM_001040285

ORF Size: 1953 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_001040285.3
RefSeq ORF:	1956 bp
Locus ID:	64282
UniProt ID:	Q8NDF8
Cytogenetics:	16q12.1
MW:	70.6 kDa

Gene Summary: Terminal nucleotidyltransferase that catalyzes preferentially the transfert 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 RC229323