

Product datasheet for **RC204352**

RPUSD4 (NM_032795) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RPUSD4 (NM_032795) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RPUSD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204352 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCGCCAGGTGGAGCGCGTCGGGCCCTGGATCCGGGAAACGGCCAAGGTTGCGGGAGTCTCT
TCACTCTCGTCTCAAAGCCATTTTGTGCCGCTGCCGCTGCCTCTACGGCCATAAATGCCAGAGATTAGC
GGAGAAGTCCGAGCCCAGAAACGGGAACAAGACACAAAGAAGGAGCCGGTGTCCACAAACGCTGTTTCAG
CGGAGAGTGCAAGAAATAGTGCAGTTCACACGGCAGCTGCAGCGAGTCCACCCCAACGTGCTTAAAG
CACTGACCCGAGGAATTCTCCACCAGGACAAGAACCTTGTGGTCAATAAGCCCTACGGTCTCCCTGT
GCATGGTGGCCCTGGGGTCCAGCTCTGCATCACTGATGTACTACCTATCCTGGCAAAGATGCTTCATGGC
CACAAGGCAGAGCCCTTGATCTGTGCCACCGGCTGGACAAGGAAACCACAGGTGTAATGGTGTGGCTT
GGGACAAGGACATGGCACATCAAGTCCAAGAGTTGTTTGAACCCGTCAGGTGGTGAAGAAGTACTGGGC
CATCACTGTGCATGTCCCATGCCCTCAGCAGGAGTCGTGGACATCCCCATTGTGGAGAAGGAGCGCAA
GGCCAGCAGCAACACCACAAGATGACATTGTCCCCGAGCTACCGCATGGACGATGGGAAATGGTGAAG
TGCGGCGCAGCCGAATGCGCAAGTTGCTGTAACCTCAGTACCAGGTGCTCAGCAGCACTCTCCTCCGC
CCTCGTGGAGCTCCAGCCATCACTGGAATAAAACATCAGCTTCGAGTTCAGTTGCTTTTGGATTGGAT
TGTCCAATCCTTGGTGTACAAAGTACTCAGACTGGAATAGGTTGGCCCCCAGAAGCTGTCTGTGGGCA
CCCTGAAGAAGCTGGGGCTAGAACAGTCGAAGGCCGCTACATCCCCCTCACCTGCACGCCCGCAGCT
GATCCTGCCTGCCTGGGGTCCGGGAAGGAGGAACTCAACTTGGTCTGCAAATTCCTCGCTTTTGTG
CATTCCCTGCACCGCCTGCGTTTAGAGATGCCAAATGAGGATCAAATGAGAACAATGAAGCCAAGTGTC
TGGGAGCACAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204352 protein sequence
Red=Cloning site Green=Tags(s)

MAAPRWSASGPWIRGNGQCGSLFTLVSKPFCAAAAASTAINAQR^{*}LAEKLRAQKREQDTKKEPVSTNAVQ
 RRVQEI^{*}VRFRTRQLQRVHPNVLAKALTRGILHQDKNLVVINKPYGLPVHGGPGVQLCITDVLPI^{*}LAKMLHG
 HKAEPHLCHRLDKETTGVMLAWDKDMAHQVQELFRTRQVVKYWAITVHVPMP^{*}SAGVVDIPIVEKEAQ
 GQQQHKKMTLSPSYRMDGKMKVRRSRNAQVAVTQYQVLSSTLSSALVELQPITGIKHQLRVHLSFGLD
 CPILGDHKYSDWNRLAPQKLSVGTLLKLGLEQSKARYIPLHLHARQLILPALGSGKEELNLVCKLPRFFV
 HSLHRLRLEMPNEDQENNEAKLGAQ

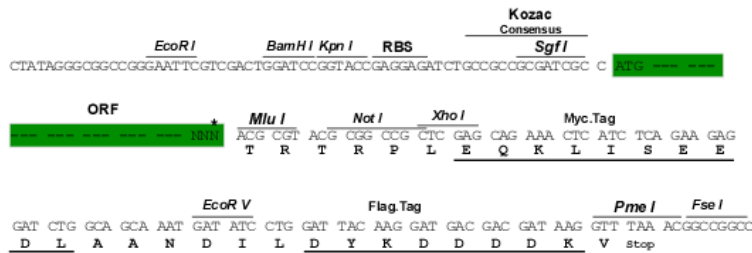
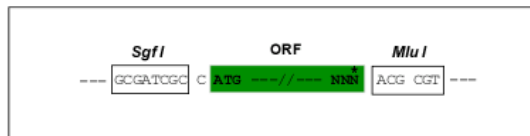
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6567_c09.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_032795

ORF Size: 1131 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_032795.3](#)

RefSeq Size: 2527 bp

RefSeq ORF: 1134 bp

Locus ID: 84881

UniProt ID: [Q96CM3](#)

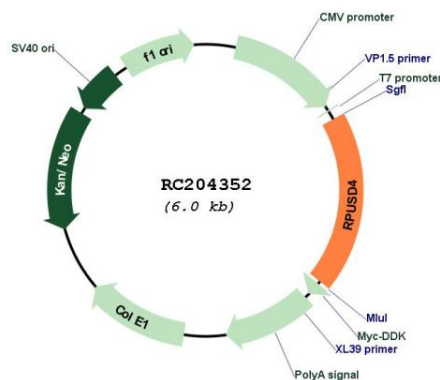
Cytogenetics: 11q24.2

Domains: PseudoU_synth_2

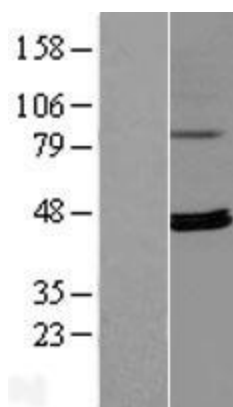
MW: 42.2 kDa

Gene Summary: Catalyzes uridine to pseudouridine isomerization (pseudouridylation) of different mitochondrial RNA substrates. Acts on position 1397 in 16S mitochondrial ribosomal RNA (16S mt-rRNA). This modification is required for the assembly of 16S mt-rRNA into a functional mitochondrial ribosome (PubMed:27974379). Acts on position 39 in mitochondrial tRNA(Phe) (PubMed:28082677). As a component of a functional protein-RNA module, consisting of RCC1L, NGRN, RPUSD3, RPUSD4, TRUB2, FASTKD2 and 16S mt-rRNA, controls 16S mt-rRNA abundance and is required for intra-mitochondrial translation (PubMed:27667664). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC204352



Western blot validation of overexpression lysate (Cat# [LY409829]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204352 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).