

Product datasheet for **RC228002**

RPUSD4 (NM_001144827) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	RPUSD4
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-Entry (PSI00001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence: >RC228002 representing NM_001144827
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCGGCGCCAGGTGGAGCGCTCGGGCCCTGGATCCGGGAAACGGCCAAGTTGCGGGAGTCTCT
TCACTCTCGTCTCAAAGCCATTTGTGCCGCTGCCGCTGCTCTACGGCCATAATGCCAGAGATTAGC
GGAGAAGCTCCGAGCCAGAAACGGGAACAAGACACAAAGAAGGAGCCGGTGTCCACAAACGCTGTTTCA
CGGAGAGTGCAAGAAATAGTGCAGTTCACACGGCAGCTGCAGCGAGTCCACCCCAACGTGCTTGCTAAGG
CACTGACCCGAGGAATTCTCCACCAGGACAAGAACCTTGTGGTTCATCAATAAGCCCTACGGTCTCCCTGT
GCATGGTGGCCCTGGGTCCAGCTCTGCATCACTGATGTACTACCTATCCTGGCAAAGATGCTTCATGGC
CACAAGGCAGAGCCCTTGCATCTGTGCCACCGGCTGGACAAGGAAACACAGGTGTAATGGTGTGGCTT
GGGACAAGGACATGGCACATCAAGTCCAAGAGTTGTTTGAACCCGTCAGGTGGTGAAGAAGTACTGGGC
CATCACTGTGCATGTCCCATGCCCTCAGCAGGAGTCGTGGACATCCCATTTGTGGAGAAGGAGGCGCAA
GTTGCTGTAACAGTACCAGGTGCTCAGCAGCACTCTCTCCTCCGCCCTCGTGGAGCTCCAGCCCATCA
CTGGAATAAAACATCAGCTTCAGTTCACTTGTCTTTGGATTGGATTGTCCAATCCTTGGTGATCACAA
GTACTCAGACTGGAATAGGTTGGCCCCCAGAAGCTGTCTGTGGGCACCCCTGAAGAAGCTGGGGTAGAA
CAGTCGAAGGCCGCTACATCCCCCTTACCTGCACGCCCGGCAGCTGATCCTGCCTGCCCTGGGGTCCG
GGAAGGAGGAACCACTTGGTCTGCAAACTTCTCGCTTCTTTGTGCATTCCCTGCACCGCTCGCTTT
AGAGATGCCAAATGAGGATCAAAATGAGAACAAATGAAGCCAAGTGTCTGGGAGCACAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence:

>RC228002 representing NM_001144827

Red=Cloning site Green=Tags(s)

MAAPRWSASGPWIRNGQGCGSLFTLVSKPFCAAAAASTAINAQRLAEKLRQKREQDTKKEPVSTNAVQ
RRVQEIVRFTRQLQRVHPNVLAKALTRGILHQDKNLVVINKPYGLPVHGGPGVQLCITDVLPIAKMLHG
HKAEPHLHLCHRLDKETTGVMVLAWDKDMAHQVQELFTRQVVKYWAITVHVPMPASAGVVDIPIVEKAQ
VAVTQYQVLSSTLSSALVELQPIITGIKHQLRVHLSFGLDCPILGDHKYSDWNRLAPQKLSVGTLLKLLGLE
QSKARYIPLHLHARQLILPALGSGKEELNLVCKLPRFFVHSLHRLRLMPNEDQNNENNAKCLGAQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

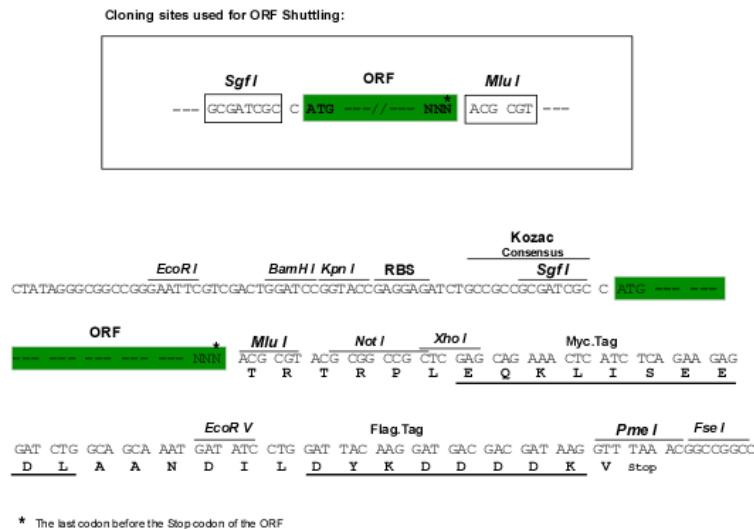
Chromatograms:

https://cdn.origene.com/chromatograms/mk8053_f12.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN:

NM_001144827

ORF Size:

1038 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:

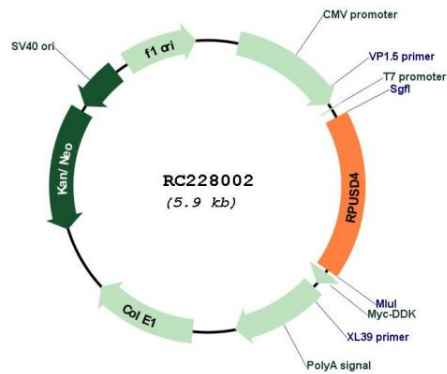
This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components:

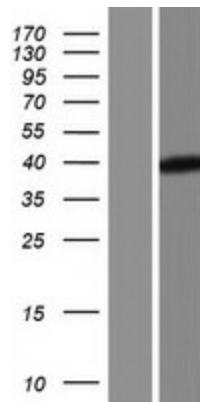
The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001144827.1</u> , <u>NP_001138299.1</u>
RefSeq ORF:	1041 bp
Locus ID:	84881
UniProt ID:	<u>Q96CM3</u>
Cytogenetics:	11q24.2
MW:	38.4 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 RC228002



Western blot validation of overexpression lysate (Cat# [LY428523]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228002 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).