

Product datasheet for **RC239991**

UPF1 (NM_001297549) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: UPF1 (NM_001297549) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: UPF1
Synonyms: HUPF1; NORF1; pNORF1; RENT1; smg-2; UTF
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC239991 representing NM_001297549
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAGCGTGGAGGCGTACGGGCCAGCTCGCAGACTCTCACTTTCCTGGACACGGAGGAGCCGAGCTGC
TTGGCCCGCACACAGGGCTCCGAGTTCGAGTTCACCGACTTTACTCTTCTAGCCAGACGCAGACGCC
CCCCGGCGGCCCGGGCGCCCGGGCGGTGGCGGCGGGAGGCCCGGGCGGCGGGCGCGGGCGTGGC
GCGGGACAGCTCGACGCGCAGGTTGGGCCCGAAGGCATCCTGCAGAACGGGGCTGTGGACACAGTGTAG
CCAAGACCAGCCAGTTGTTGGCTGAGTTGAACTTCGAGGAAGATGAAGAAGACACCTATTACACGAAGGA
CCTCCCCATACACGCCTGCAGTACTGTGGAATACACGATCCTGCCTGCGTGGTTTACTGTAATACCAGC
AAGAAGTGGTTCGCAACGGACGTGAAATACTTCTGGCAGCCACATTGTAATCACCTTGTGAGGGCAA
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CAGCCCTGTGCCAGCCAGAGCAGCCTCAAGGACATCAACTGGGACAGCTCGCAGTGGCAGCCGCTGATCC
AGGACCGTCTTCTGTCTGGCTGGTCAAGATCCCCTCGAGCAGGAGCAGCTGCGGGCAGCCAGAT
CACGGCACAGCAGATCAACAAGCTGGAGGAGCTGTGGAAGGAAAACCTTCTGCCACGCTGGAGGACCTG
GAGAAGCCGGGGTGGACGAGGAGCCGACGATGTCTCCTGCGGTACGAGGACGCTACCAGTACCAGA
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TAACATCACTGTGAGTGGGACCTGGGCCCTTAACAAGAAGAGAATCGCCTACTTCACTTTGCCAAAGACT
GACTCTGGTAATGAGATTTAGTCATAATTTGGTTAAGAGACATGCGGCTCATGCAGGGGGATGAGATAT
GCCTGCGGTACAAAGGGACCTTGCGCCCTGTGGAAAGGGATCGGCCACGTCATCAAGTCCCTGATAA
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CCACCATCGTCTACCACCTGGCCCGCAAGGCAACGGGCCGGTGTGGTGTGTGCTCCGAGCAACATCGC
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 GCCAGCCAGGATGTGGCGTCACAGCCCTTCTCTCAGGGCCCTGACGACGGGCTACATCTCCATGAGCC
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 GCGGGGTGACGGGGCTGTCCAGTAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence:

>RC239991 representing NM_001297549
 Red=Cloning site Green=Tags(s)

MSVEAYGPSSQTLTFLDTEEAELLGADTQGSEFEFTDFTLPSQTQTPPGPGGGGGAGGPGGAGAGAA
 AGQLDAQVPEGILQNGAVDDSVAKTSQLLAELNFEDEEDTYTKDLP IHACSYCGIHPACVVCNTS
 KKWF CNRGN TSGSHIVNHLVRAKCKEVLHKDGPLGETVLECYNCGCRNVFLLGFIPAKADSVVLLCR
 QPCASQSSLK D INWDSSQWQPLIQDR CFLSWLVKIPSEQEQLRARQIT AQQINKLEELWKENPSATLEDL
 EKPGVDEEPQHVLRLRYEDAYQYQNI FGPLVKLEADYDKK LKESQTQDNITVRWDLGLNKKRIAYFTLPKT
 DSGNEDLVIIWLRDMRLMQGDEICLRYKGD L APLWKGI GHVIVKVPDNYGDEIAIELRSSVGPVVEVTHNF
 QVDFVWKSTSFDRMQSALKTF AVDETSVSGYIYHKLLGHEVEDV I IKCQLPKRFTAQGLPDLNHSQVYAV
 KTVLQRPLSLIQPPGTGKT VTSATIVYHLARQNGPVLVCAPSNIAVDQLTEKIHQTGLKVVRLCAKSR
 EAIDSPVSFLALHNQIRNMDMP ELQKLQQLKDETGELSSADEKRYRALKRTAERELLMNADVICTCVG
 AGDPR LAKMQFRSILIDESTQATEPECMVPVVLGAKQLILVGDHCQLGPVVMCKAAKAGLSQSLFERLV
 VLGIRPIRLQVQYRMHPALSAFPSNIFYEGSLQNGVTAADR VKKGFDFQWPQDKPMFFVYVTQGQEEIAS
 SGTSYLNRTEAANVEKITTKLLKAGAKPDQIGIITPYEGQRSYL VQYMQFSGSLHTKLYQEVEIASVDAF
 QGREKDFIILSCVRANEHQIGIFLNDPRLNVALTRARYGVII VGNPKALSKQPLWNHLLNYYKEQKVLV
 EGPLNNLRESLMQFSKPRKLVNTINPGARFMTTAMYDAREAIIPGSVYDRSSQGRPSSMYFQTHDQIGMI
 SAGPSHVAAMNIPIPFNLVMPMPPPGYFGQANGPAAGRGTPK GK TGRGGRQKNRFLPGPSQTNLPNSQ
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 GGVTGLSQY

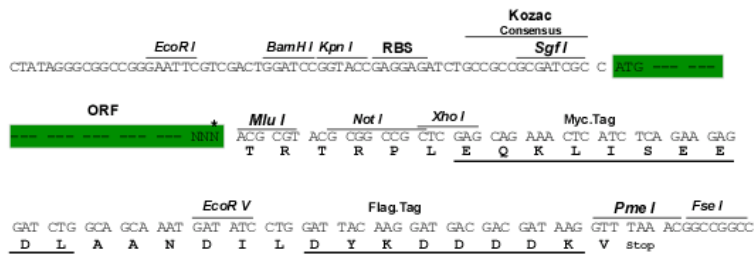
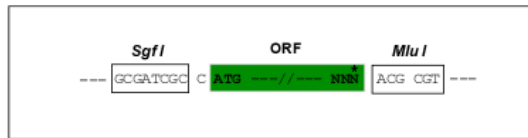
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

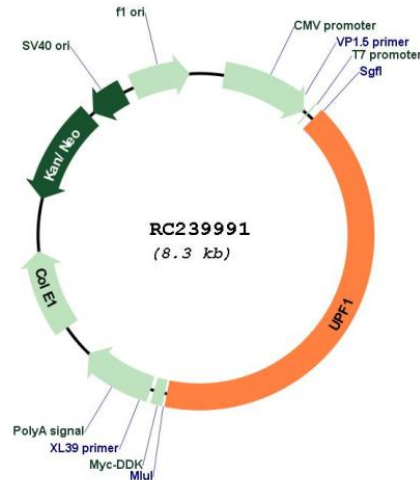
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001297549

ORF Size: 3387 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_001297549.2](#)

RefSeq Size: 5395 bp

RefSeq ORF: 3390 bp

Locus ID: 5976

UniProt ID: [Q92900](#)

Cytogenetics: 19p13.11

Protein Families: Druggable Genome

MW: 124.8 kDa

Gene Summary: This gene encodes a protein that is part of a post-splicing multiprotein complex involved in both mRNA nuclear export and mRNA surveillance. mRNA surveillance detects exported mRNAs with truncated open reading frames and initiates nonsense-mediated mRNA decay (NMD). When translation ends upstream from the last exon-exon junction, this triggers NMD to degrade mRNAs containing premature stop codons. This protein is located only in the cytoplasm. When translation ends, it interacts with the protein that is a functional homolog of yeast Upf2p to trigger mRNA decapping. Use of multiple polyadenylation sites has been noted for this gene. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]