

## Product datasheet for **RG235284**

### USP19 (NM\_001199162) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	USP19 (NM_001199162) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	USP19
Synonyms:	ZMYND9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG235284 representing NM_001199162 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTGGCGGGCCAGTGCCACAGGCCAAGGAGAGGGCCCCAGGACTGGAGGACACCACTAGTAAGA  
AGAAGCAGAAGGATCGAGCAAACCAGGAGAGCAAGGATGGAGATCCTAGGAAAGAGACAGGGTCTCGATA  
TGTTGCCAGGCTGGTCTTGAACCTCTGGCCTCAGGTGATCCTTCTGCCTCAGCCTCCCATGCAGCTGGG  
ATCACAGGCTCAGCCACCGTACCCGGCTGTTCTTTCCTTCATCGTCAGGGTCAAGTCCACTCCTCAAG  
AGGAGCAGACAAAGAGGGAGCTTGTGAAGACCCTCATGATCTCTTGGCTACTCCACTCCAGAGTTGTT  
GCTCGATTGGAGGCAGAGTGCAGAAGAGGTGATTGTCAAGCTTCGTGTGGGAGTAGTCCCTGCAGCTG  
GAGGATGTAGATGCTGCTTTCACAGATACAGACTGTGTGGTGCGGTTTGCAGGTGGTGCAGAGTGGGGT  
GTGTTCTTATGCTGAGATAAAAAGCTCTTGTGCTAAAGTGCAAACCCGCAAGGGCAGTCTCCTGCACCT  
GACTGCCCCAAAAGAAGAAACCTCTAGGGACCCAGGAGCTGGTGCCGGGGCTGCGGTGCCAGGAGAAT  
GGCAGGAAGTGTCTCCATTGCCCTGGAGCCAGGCCCTGAGCCCCACCGGGCTAAGCAGGAGGCCCGGA  
ACCAGAAGCGGGCCAGGGCCGTGGTGAAGTAGGCGCAGGGCTGGCCCCGGGGCCAGGCAGGGCCAG  
CGCCAAGAGGGCTGTGCATCTCTGCAGAGGGCCAGAGGGGACGGTCCAGGGATGACCTGGACCCCGG  
GGTGTGCCACCCTTCTGGCTGACCCAGCCACCCAGGTTGAGGCTGATGAACAGCTTTGCATACCAC  
CGCTGAACCTCCAAACCTGCCTCCTGGGCTCAGAGGAGAATTTAGCCCTTTGGCAGGAGAGAAAGCAGT  
GCCTCCCGGGAATGACCCAGTCTCTCCAGCCATGGTCCGAGCAGAAAACCTGGGAAAGATGACTGTGCC  
AAGGAGGAGATGGCAGTGGCAGCAGATGCTGCAACCTTGGTGGATGAGCCGAGTCGATGGTGAACCTGG  
CGTTTGTCAAGAATGACTCGTATGAGAAGGGCCCGGATTAGTGGTGGTGCACGTGTACGTGAAGGAGAT  
CTGCAGGGACACCTCAAGAGTACTTTTCCGTGAGCAGGACTTCACGCTCATCTTCCAGACCAGGGATGGA  
AACTTCTGAGGCTGCACCCGGGCTGTGGGCCACACCACCTCCGTTGGCAGGTGAAGCTCAGGAATC  
TGATTGAGCCAGAGCAGTGCACCTTCTGTTTACGGCTTCTCGCATCGACATCTGCCTTCGTAAGAGGCA  
GAGTCAGCGCTGGGGGGCTGGAGGCCCGGCTGCACGAGTGGTGGTCAAGGTTGCCGTGCCGACA



[View online >](#)

GGTCCAACCCCTCTGGATTCAACCCACCAGGAGGTGCTCCCCACCCCTGACAGGCCAGGAGGAGGCC  
GGGCTGTGGAGAAGGATAAATCCAAGGCACGATCTGAGGACACAGGGCTAGACAGTGTGGCAACCCGCAC  
ACCCATGGAGCATGTAACCCAAAGCCAGAGACACACCTGGCCTCGCCCAAGCCTACATGCATGGTGCCT  
CCCATGCCCCACAGCCAGTTAGTGGAGACAGCGTGGAGGAGGAGGAAGAGGAAGAAGGTGTGTC  
TGCCAGGCTTCACTGGCCTTGTCAATTTAGGCAACACCTGCTTCATGAACAGCGTCATTCAGTCTCTGTC  
CAACACTCGGGAACCTCCGGGACTTCTCCATGACCGCTCCTTTGAGGCTGAGATCAACTACAACAACCCA  
CTAGGGACTGGTGGCGTCTGGCCATTGGCTTTGCCGTGCTGCTTCGGGCGCTGTGGAAGGGCACCCACC  
ATGCCTTCCAGCCTTCCAAGTTGAAGGCCATTGTGGCGAGTAAGGCCAGCCAGTTCACAGGCTATGCACA  
GCATGATGCCAGGAGTTCATGGCTTTCCTGCTGGATGGGCTGCACGAGGACCTGAATCGCATTAGAAC  
AAGCCCTACACAGAGACCGTGGATTAGATGGGCGGCCGATGAGGTGGTAGCTGAGGAAGCATGGCAGC  
GGCACAAGATGAGGAATGACTCTTTCATCGTGGACCTATTTAGGGGCGAGTACAAGTGAAGCTGGTGTG  
CCCTGTGTGTGCCAAGGTCTCCATCACTTTTACCCTGTTCTTTATCTGCCGGTGCCTTGCACAAAAG  
CAAAAGTTTCTCCCTGTCTTTATTTTGGCCGAGAGCCCCACAGCAAGCCATCAAGTTCCTGGTGAGCG  
TCAGCAAGGAGAACTCCACTGCGAGCGAAGTATTGGACTCCCTCTCTCAGAGTGTTCATGTGAAGCCTGA  
GAACCTGCGTTTGGCGGAGGTAATTAAGAATCGTTTTTCATCGTGTGTTCTACCCTCCCACTCACTGGAC  
ACTGTGTCCCATCTGATACGCTCCTCTGCTTTGAGCTGCTATCCTCAGAGTTGGCTAAGGAGCGGGTAG  
TGGTGCTAGAGGTGCAACAGCGCCCCAGGTGCCAGCGTCCCCATCTCCAAGTGTGCAGCCTGCCAGCG  
GAAGCAACAGTCCGAGGATGAAAAGCTGAAGCGCTGTACCCGGTGTACCGTGTGGGCTACTGCAACCAG  
CTCTGCCAGAAAACCACTGGCCTGACCACAAGGGCCTCTGCCGACCTGAGAACATTGGCTACCCCTTCC  
TGGTCAGTGTACCTGCCTCACGCCTCACTTATGCCCGCTCGCTCAGTTGCTAGAGGGCTATGCCCGTA  
CTCTGTGAGTGTATTCCAGCCACCCTTTCAGCCAGGCCGATGGCCTTGGAGTCTCAGAGCCCTGGCTGC  
ACCACACTGCTCTCCACAGTTCCCTGGAGGCTGGGACAGCGAGAGAGACCCCACTCAGCCACCTGAGC  
TCCAGTGGTGACCCCTATGGCTGAGGGGGACACAGGGCTTCCCAGGGTGTGGGCAAGCTGACCCGGG  
TCCTGTGCCAGCACCAAGTGAATTTCTTCTGAGATGCTGGCCAGTGGGCCATTGAGGTTGGCTCCTTG  
CCAGCTGGCGAGAGGGTGTCCCAGCCGAAGCTGCTGTGCCTGGGTACCAGCATCCAAGTGAAGCTATGA  
ATGCCACACACCCCACTTCTTCTATATAAAAATTGATTCATCCAACCGAGAGCAGCGGCTAGAGGACAA  
AGGAGACACCCCACTGGAGCTGGGTGACGACTGTAGCCTGGCTCTCGTCTGGCGAACAATGAGCGCTTG  
CAGGAGTTTGTGTTGGTAGCCTCCAAGGAGCTGGAATGTGCTGAGGATCCAGGCTCTGCCGGTGGGCTG  
CCCGGGCCGGCCACTTACCCTGGACCAGTGCCTCAACCTCTTACACGGCCTGAGGTGCTGGCACCCGA  
GGAGGCTGGTACTGCCACAGTCAAACAGCACCGTGGGCTCCAAGCAGCTGTTGCTATGGCGCCTG  
CCAAATGTTCTCATCGTGCAGCTCAAGCGCTTCTCCTTTCGTAGTTTTATCTGGCGTGACAAGATCAATG  
ACTTGGTGGAGTTCCTGTTAGGAACCTGGACCTGAGCAAGTTCGCAATTGGTCAGAAAGAGGAGCAGCT  
GCCAGCTACGATCTATATGCTGTCAACCACTATGGAGGCATGATTGGTGGCCACTACACTGCCTGT  
GCACGCCTGCCAATGATCGTAGCAGTACGCGCAGTGACGTGGGCTGGCGCTTGTGTTGATGACAGCACAG  
TGACAACGGTAGACGAGAGCCAGGTTGTGACGCGTTATGCCTATGTACTTCTACCCGCCGGCGAACTC  
TCCTGTGGAGAGGCCCCAGGGCAGGTCACTCTGAGCACCAACCCAGACCTAGGCCCTGCAGCTGAGGCT  
GCTGCCAGCCAGGACTAGGCCCTGGCCAGGCCCCGAGGTGGCCCCACGCGGACAGCCCTGAACGCT  
TCGCCCCCTGTGGATCGGCCAGCCCCACCTACAGCAACATGGAGGAGGTGGAT

AGCGGACCGACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG235284 representing NM\_001199162  
 Red=Cloning site Green=Tags(s)

```

MSGGASATGPRRPPGLEDTTSKKKQKDRANQESKDGDPKETSRYVAQAGLEPLASGDPSASASHAAG
ITGSRHRTLFFPSSSGSASTPQEEQTEGACEDPHDLLATPTPELLLDWRQSAEEVIVKLRVGVGGLQL
EDVDAAF TDTDCVVRFAGGQQWGGVFYAEIKSSCAKVQTRKGSLLHL TLPKKKKPLGTQELVPLRCQEN
GQELSPIALEPGPEPHRAKQEARNQKRAQGRGEVGAGAGPGAQAGPSAKRAVHL CRGPEGDGSRDDPGPR
GDAPPFVADPATQVEADEQLCIPPLNSQTCLLGSEENLAPLAGEKAVPPGNDPVSPAMVRSRNP GKDDCA
KEEMAVAADAATLVDEPESMVNLAFVKNDSEYKGPDSVVVHVYVKEICRDTSRVLFREQDFTLIFQTRDG
NFLRLHPGCGPHTTFRWQVKLRNLEIEPQCTFCFTASRIDICLRKRQSQRWGGL EAPAARVGGAKVAVPT
GPTPLDSTPPGGAPHLTGQEEARAVEKDKSKARSED TGLDSVATRTPMEHVTPKETHL ASPKPTCMVP
PMPHSPVSGDSVEEEEEEEKKVCLPGFTGLVNLGNTCFMNSVIQSL SNTREL RDFFHDRSFEAEINYNP
LGTGGRLAIGFVLLRALWKGTHHAFQPSKLAIVASKASQFTGYAQHDAQEFMAFLLDGLHEDLNRIQN
KPYTETVDSGRPDEVVAEEAWQRHKMRNDSFIVDLFQGGYKSKLVCPVCAKVSITFD PFLYLPVPLPQK
QKVLVPVYFAREPHSKPIKFLVSVSKENSTASEVLDLSQSVHVKPENLRLAEVIK NRFHRVFLPSHSLD
TVSPSDTL LCFELL SSELAKERVVLEVQRPQVPSVPI SKCAACQKQKQSEDEKLKRCRTRCYRVGYNQ
LCQKTHWPDHKG LCRPENIGYPFLVSVPASRLTYARLAQLLEGYARYSVSVFQP PFQPGRMAL ESQSPGC
TLLSTGSL EAGDSERDPIQPPELQLVTPMAEGDTGLPRVWAAPDRGPVPSTSGI SSEM LASGPIEVGSL
PAGERVSRPEAAVPGYQHPSEAMNAHTPQFFIYKIDSSNREQRLEDKGDTPLELGD DCSLALVWRNNERL
QEFVLVASKELECAEDPGSAGEAARAGHFTLDQCLNLFTRPEVL APEEAWYCPQCKQHREASKQLLLWRL
PNVLIVQLKRF SFRSFIWRDKINDLVEFPVRNLDL SKFCIGQKEEQ LPSYDL YAVINHYGMI GGHYTAC
ARLPNDRSSQ RSDVGRWLFDDSTVTTVDESQVVTRYAYVLFYRRRNSPVERPPRAGHSEHHPDLGPAAEA
AASQGLGPGQAPEVAPTRTAPERFAPPVDRPAPTYSNMEEVD
    
```

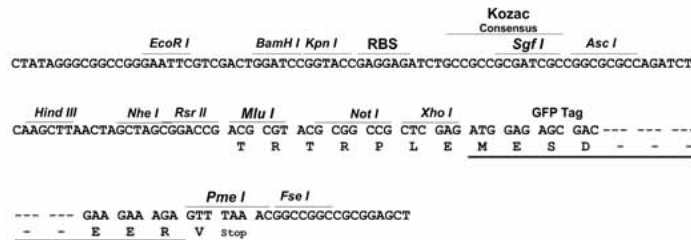
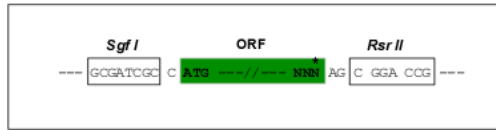
SGPTRRRLE - GFP Tag - V

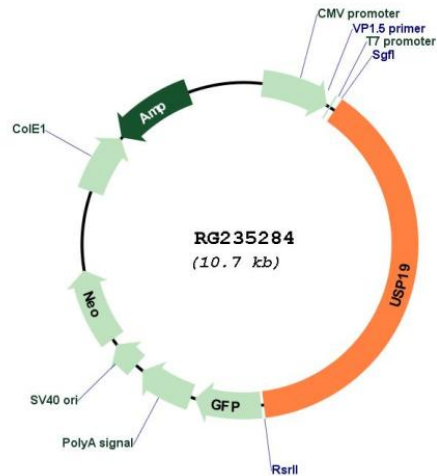
Restriction Sites:

SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_001199162

**ORF Size:** 4116 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\\_001199162.1](#), [NP\\_001186091.1](#)

**RefSeq Size:** 4847 bp

**RefSeq ORF:** 4119 bp

**Locus ID:** 10869

**UniProt ID:** [O94966](#)

**Cytogenetics:** 3p21.31

**Protein Families:** Druggable Genome, Protease, Transmembrane

**Gene Summary:** Protein ubiquitination controls many intracellular processes, including cell cycle progression, transcriptional activation, and signal transduction. This dynamic process, involving ubiquitin conjugating enzymes and deubiquitinating enzymes, adds and removes ubiquitin. Deubiquitinating enzymes are cysteine proteases that specifically cleave ubiquitin from ubiquitin-conjugated protein substrates. This protein is a ubiquitin protein ligase and plays a role in muscle wasting. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2017]