

## Product datasheet for **RG213986**

### USP7 (NM\_003470) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | USP7 (NM_003470) Human Tagged ORF Clone                                     |
| Tag:                      | TurboGFP  |
| Symbol:                   | USP7  |
| Synonyms:                 | HAFOUS; HAUSP; TEF1   |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)   |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| ORF Nucleotide Sequence:  | >RG213986 representing NM_003470<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAACCACCAGCAGCAGCAGCAGCAGCAGCAAAGCGGGCAGCAGCAGTTGAGCGAGCCCGAGGACATGG  
AGATGGAAGCGGGAGATACAGATGACCCACCAAGAATTACTCAGAACCCTGTGATCAATGGGAATGTGGC  
CCTGAGTGATGGACACAACACCGCGGAGGAGGACATGGAGGATGACACCAGTTGGCGCTCCGAGGCAACC  
TTTCAGTTCAGTGTGGAGCGCTTCAGCAGACTGAGTGAGTCGGTCCTTAGCCCTCCGTGTTTTGTGCGAA  
ATCTGCCATGGAAGATTATGGTGATGCCACGCTTTTATCCAGACAGACCACCAAAAAAGCGTAGGATT  
CTTTCTCCAGTGAATGCTGAATCTGATTCCACGTCATGGTCTTGCCATGCACAAGCAGTCTGAAGATA  
ATAAATTACAGAGATGATGAAAAGTCGTTCACTCGTCGTATTAGTCATTTGTTCTCCATAAAGAAAATG  
ATTGGGGATTTTCCAATTTATGGCCTGGAGTGAAGTGACCGATCCTGAGAAAGGATTTATAGATGATGA  
CAAAGTTACCTTTGAAGTCTTTGTACAGGCGGATGCTCCCATGGAGTTGCGTGGGATTCAGAAGCAC  
ACAGGCTACGTCGGCTTAAAGAATCAGGGAGCGACTTGTTACATGAACAGCCTGTACAGACGTTATTTT  
TCACGAATCAGCTACGAAAGGCTGTGTACATGATGCCAACCGAGGGGGATGATTCGTCTAAAAGCGTCCC  
TTTAGCATTACAAAGAGTGTCTATGAATTACAGCATAGTGATAAACCTGTAGGAACAAAAAGTTAACA  
AAGTCATTTGGTGGGAACTTTAGATAGCTTTCATGCAACATGATTTTCAGGAGCTTTGTGAGTGTTC  
TCGATAATGTGGAAAATAAGATGAAAGGCACCTGTGTAGAGGGCACCATACCCAAATTATTCGCGGCAA  
AATGGTGTCTATATCCAGTGTAAAGAAGTAGACTATCGTCTGATAGAAGAGAAGATTATTATGATATC  
CAGCTAAGTATCAAAGGAAAGAAAAATATATTTGAATCATTTGTGGATTATGTGGCAGTAGAACGCTCG  
ATGGGGACAATAAATACGACGCTGGGGAACATGGCTTACAGGAAGCAGAGAAAGGTGTGAAATTCCTAAC  
ATTGCCACCAGTGTACATCTACAATGATGAGATTTATGTATGACCCTCAGACGGACCAAAATATCAAG  
ATCAATGATAGGTTTGAATTCAGAGCAGTTACCACTTATGATGAAATTTTGCAAAAACAGATCCTAAGG  
ACCCTGCAAATTATTTCTTCATGCAGTCTGGTTCATAGTGGAGATAATCATGGTGACATTATGTGGT  
TTATCTAAACCCAAAGGGGATGCCAAATGGTGAATTTGATGACGACGTGGTGTCAAGGTGTACTAAA



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GAGGAAGCAATTGAGCACAATTATGGGGTCCACGATGACGACCTGTCTGTTTCGACACTGCACTAATGCTT  
 ACATGTTAGTCTACATCAGGGAATCAAACCTGAGTGAAGTTTTACAGCGGTCCACGACCATGATATTCC  
 TCAGCAGTTGGTGGAGCGATTACAAGAAGAGAAAAGGATCGAGGCTCAGAAGCGGAAGGAGCGGCAGGAA  
 GCCCATCTCTATATGCAAGTGCAGATAGTCGCAGAGGACCAGTTTTGTGGCCACCAAGGGAAATGACATGT  
 ACGATGAAGAAAAAGTAAATACACTGTGTTCAAAGTATTGAAGAACTCCTCGTTGCTGAGTTGTTCA  
 GAGCCTCTCTCAGACCATGGGATTTCCACAAGATCAAATTCGATTGTGGCCCATGCAAGCAAGGAGTAAT  
 GGAACAAAACGACCAGCAATGTTAGATAATGAAGCCGACGGCAATAAAACAATGATTGAGCTCAGTGATA  
 ATGAAAACCCCTTGACAATATTCCTGAAAACAGTTGATCCCGAGCTGGCTGCTAGTGGAGCGACCTTACC  
 CAAGTTTGATAAAGATCATGATGTAATGTTATTTTTGAAGATGTATGATCCCAAAACGCGGAGCTTGAAT  
 TACTGTGGGCATATCTACACACCAATATCCTGTAAAATACGTGACTTGCTCCAGTTATGTGTGACAGAG  
 CAGGATTTATTCAAGATACTAGCCTTATCCTCTATGAGGAAGTTAAACCGAATTTAACAGAGAGAATTCA  
 GGACTATGACGTGCTCTTGATAAAGCCCTTGATGAAGTAAATGGTGGTACATCATAGTATTTCAGAAG  
 GATGACCTGAAAATGATAACAGTGAATACCCACCGCAAAGGAGATTTCCGAGATCTCTACCACCGCG  
 TTGATGTCATTTTCTGTGATAAAAACAATCCCTAATGATCCTGGATTTGTGGTTACGTTATCAATAGAAT  
 GAATTATTTTTCAGGTTGCAAAGACAGTTGCACAGAGGCTCAACACAGATCCAATGTTGCTGCAGTTTTTC  
 AAGTCTCAAGGTTATAGGGATGGCCAGGTAATCCTCTTAGACATAAATTGAAGGTAAGTAAAGAGATC  
 TTCTACAGTTCTCAAGCCTAGACAACCTAAGAACTTTACTATCAGCAGCTTAAGATGAAAATCACAGA  
 CTTTGAGAACAGGCGAAGTTTTAAATGTATGTTTAAACAGCCAATTTAGGGAAGAGGAAATAACACTA  
 TATCCAGACAAGCATGGGTGTGTCGGGACCTGTTAGAAGAAATGTAAGGTAACAAAATCATTGGTGTTCATCAAGAAGATGA  
 AAGCATCAGGAAACTTAGGCTGCTAGAAATGTAAGCTACAAAATCATTGGTGTTCATCAAGAAGATGA  
 ACTATTAGAATGTTTATCTCTGCAACGAGCCGGACGTTTCGAATAGAGGAAATCCCTTTGGACCAGGTG  
 GACATAGACAAAAGAGAATGAGATGCTTGTACAGTGGCGCATTTCCACAAAAGAGGTTCCGGAACGTTCCG  
 GAATCCCGTTTTGCTGAGGATACACCAGGGCAGCATTTTCGAGAAGTATGAGCGCAATCCAGAGCCT  
 GCTGGACATCCAGGAGAAGGAGTTTGAGAAGTTTAAATTTGCAATTGTAATGATGGGCCGACACCGATAC  
 ATAAATGAAGACGAGTATGAAGTAAATTTGAAAGACTTTGAGCCACAGCCCGGTAATATGTCTATCCTC  
 GCCTTGCTAGGGCTCGACCACTTCAACAAAGCCCAAGAGGAGTTCGCTACACTTACCTTGAAGAGGC  
 CATTAATCCATAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG213986 representing NM\_003470  
 Red=Cloning site Green=Tags(s)

MNHQQQQQQKAGEQQLSEPEDMEMEAGDTPPPRITQNPVINGNVALSDGHNTAEEDMEDDTSWRSEAT  
 FQFTVERFSRLSESVLSPPCFVRNLPWKIMVMPRFYPDRPHQKSVGFFLQCNAESDSTSWSCHAQAVLKI  
 INYRDDEKSFRRISHLFFHKENDWGF SNFMAWSEVTDPEKGFIDDDKVTFEVQADAPHGVAWDSKKH  
 TGYVGLKNQGATCYMNSLLQTLFFTNQLRKAVYMMPTGDDSSKSVPLALQRFVYELQHSKDPVGTKKLT  
 KSFGEWETLDSFMQHDVQELCRVLLDNVENKMKGTVEGTIPKLFGRKMVSYIQCKEVDYRSRRREYYDI  
 QLSIKGKKNIFESFVDYVAVEQLDGDNKYDAGEHGLQEAEGVKFLLPVPVHLQLMRMYDPQTQDNQIK  
 INDRFEFPEQLPLDEFLQKTDPKDPANYILHAVLVHSGDNHGGHYVYVYLNPKGDGKWKCFDDDVVSRCTK  
 EEAEIHNYGGHDDL SVRHCTNAYMLVYIRESKLVAVTDHDIQQQLVERLQEEKRIEQAQRKERQE  
 AHLVMQVQIVAEDQFCGHQGNMDEEKVKYTVFKVLKNSSLAEFVQSLSQTMGFPQDQIRLWPMQARSN  
 GTKRPAML DNEADGNKTMIELSDNENPWTIFLETVDPELAASGATLPKFDKDHVMLFLKMYDPKTRSLN  
 YCGHIYTPISCKIRDLLPVMCDRAGFIQDTSILYEEVKPNLTERIQDYDVS LKALDELMDGDIIVFQK  
 DDPENDNSELP TAKEYFRDL YHRVDVIFCDKTI PNDPGFVVTL SNRMNYFQVAKTVAQRLNDPMLLQFF  
 KSQGYRDGPGNPLRHNYEGTLRDLLQFFKPRQPKKLYYQQLKMKITDFENRRSFKCIWLN SQFREEITL  
 YPDKHGCVRD LLEECKAVELGEKASGLRLL EIVSYKIIGVHQEDELLECLSPATSRTFRIEEIPLDQV  
 DIDKENEMLVTVAHFHEVFGTFGIPFLLR IHQGEHFREVMKRIQSLLDIQEKEFEKFAIVMMGRHQY  
 INEDEYEVNLKDFEPQGNM SHPRPWLGLDHFNKAPKRSRYTYLEKAIKIHN

TRTRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_003470

**ORF Size:** 3306 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](mailto: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\\_003470.3](#)

RefSeq Size: 4022 bp

RefSeq ORF: 3309 bp

Locus ID: 7874

UniProt ID: [Q93009](#)

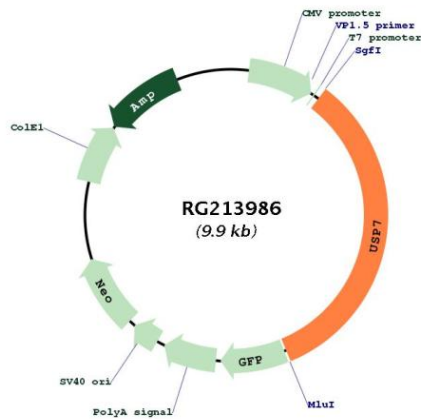
Cytogenetics: 16p13.2

Domains: UCH, MATH

Protein Families: Druggable Genome, Protease

**Gene Summary:** The protein encoded by this gene belongs to the peptidase C19 family, which includes ubiquitinyl hydrolases. This protein deubiquitinates target proteins such as p53 (a tumor suppressor protein) and WASH (essential for endosomal protein recycling), and regulates their activities by counteracting the opposing ubiquitin ligase activity of proteins such as HDM2 and TRIM27, involved in the respective process. Mutations in this gene have been implicated in a neurodevelopmental disorder. [provided by RefSeq, Mar 2016]

**Product images:**



Circular map for RG213986