

Product datasheet for **RG229390**

USP20 (NM_006676) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	USP20 (NM_006676) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	USP20
Synonyms:	hVDU2; LSFR3A; VDU2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG229390 representing NM_006676
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGGGACTCCAGGGACCTTTGCCTCACCTTGACTCCATAGGAGAGGTGACCAAAGAGGACTTGCTGC
 TCAAATCTAAGGGAACCTGTGAGTCGTGTGGGGTACCGGACCAAACCTATGGCCGTGTCTGCAGGTTGC
 CTGCCCTATGTTGGCTGCGGAGAATCCTTTGCTGACCACAGCACCATTTCATGCACAGGCAAAAAAGCAC
 AACTTGACCGTGAACCTGACCACGTTCCGACTGTGGTGTACGCCTGTGAGAAGGAGGATTCTCTGGAGC
 AGCGGCTGGCAGCCCTCTGCTGGGCTCCTCTTCAAGTTCTCTGAACAGGACTCCCGCCACCCTCCCA
 CCCTCTGAAAGCTGTTCTATTGCTGTGGCTGATGAAGGAGAGTCTGAGTCAGAGGACGATGACCTGAAA
 CCTCGAGGCCCTACGGGCATGAAGAACCTCGGAACTCCTGCTACATGAACGCTGCCCTGCAGGCCCTGT
 CCAATTGCCCGCGCTGACTCAGTCTTCTTGGAGTGTGGCGGCCTGGTGCACAGATAAGAAGCCAGC
 CCTGTGAAGAGTACCAGAAGCTGGTCTCTGAGGTCTGGCATAAGAAACGGCCAAGCTACGTGGTCCCC
 ACCAGTCTGTCTCATGGGATCAAGTTGGTCAACCCAATGTTCCGAGGCTATGCCAGCAGGACACCCAAG
 AGTTCTTCGCTGCCTGATGGACAGCTGCACGAGGAGCTCAAGGAGCCGGTGGTGGCCACGGTGGCGCT
 GACGGAGGCTCGGGACTCAGATTCGAGTGACACGGATGAGAAACGGGAGGGTGACCGGAGCCCATCAGAA
 GATGAGTCTTGTCTGTGACTCGAGCAGTGACCGGGGTGAGGGTGACGGGCAGGGGCGTGGCGGGGCA
 GCTCGCAGGCCGAGACGGAGCTGCTGATCCCAGATGAGGCGGGCCGAGCCATCTCTGAGAAGGAGCGGAT
 GAAGGACCGCAAGTTCTCTGGGGCCAGCAGCGTACAACTCGGAGCAAGTGACGAGGACGCTGATGTG
 GACACTGCCATGGCTGCCCTTACGACACGCCCCGAGGAGCCAGCCCCGTACCACGGTCTCCAGCC
 CCTGCCGACGCCAGAGCCGGACAATGATGCTCACCTACGAGCTCCTCTCGCCCCGTGACCCCTCCCA
 CCACCAGGAGGCCATGCCAAGCTGTCTAGCAGCCCCCTCGTGCAAGCCCCGTGAGGATGGCACCGTCTG
 TACGTGCTCAAGAAAGCCAGGTATTGAGTGTGGCAGCCGAGGCGGAAGGAGCAGCGCTACCGCAGCG
 TCATCTCAGACATCTTTGACGGCTCCATTCTCAGCCTTGTGAGTGTCTCACCTGTGACCGGGTATCCAC
 CACAGTGGAAACGTTCCAGGACTTACTGCCCCATTCTGAAAAGGAGGACCTGGCCAAGCTCCATTCA
 GCCATCTACCAGAATGTGCCGGCAAGCCAGGCGCTGTGGGGACAGCTATGCCGCCAGGGCTGGCTGG
 CCTTCATTGTGGAGTACATCCGACGTTTGTGGTATCCTGTACCCCCAGCTGGTTTTGGGGCCTGTCGT
 CACCCTGGAAGACTGCCTTGTGCCTTCTTGGCGCTGATGAGTAAAGGGTGACAACATGTACAGCTGT
 GAGCGGTGTAAGAAGCTGCGGAACGGAGTGAAGTACTGCAAAGTCTGCGGTTGCCCGAGATCCTGTGCA
 TTCACCTAAAGCGCTTTCGGCAGGAGGTGATGACTCATTCAAGATCAACAGCCAGTCTCCTTCCCCCT
 CGAGGGGCTCGACCTGCGCCCTTCTTCCCAAGGAGTGACATCCCAGATCACCACCTACGACCTCCTC
 TCGGTCTCTGCCACCACGGCACGGCAGGACAGTGGGCACTACATCGCCTACTGCCAGAAGCTGATCAATG
 GGCAGTGGTACGAGTTTGTGATGACCAGTACGTCACAGAAGTCCACGAGACGGTGGTGCAGAACGCCAGGG
 CTACGTACTCTTACAGGAAGAGCAGCGAGGAGGCCATGCGGGAGCGACAGCAGGTGGTGTCCCTGGCC
 GCCATGCGGGAGCCAGCCTGCTGCGGTTCTACGTGTCCCGGAGTGGCTCAACAAGTTCAACACCTTCG
 CGGAGCCAGGCCCATCACCAACCAGACCTTCTCTGCTCCCACGGAGGCATCCCGCCCCACAAATACCA
 CTACATCGACGACCTGGTGGTCACTCTGCCCCAGAAGCTCTGGGAGCACCTGTACAACAGATTCGGGGGT
 GGCCCCGCGTGAACCACCTGTACGTGTGCTCCATCTGCCAGGTGGAGATCGAGGCACTGGCCAAGCGCA
 GGAGGATCGAGATCGACACCTTCATCAAGTTGAACAAGGCCTTCCAGGCCGAGGAGTCCGCGGGCGTCT
 TACTGCAATCAGCATGCAGTGGTTCGGGAGTGGGAGGCGTTCGTCAAGGGGAAGGACAACGAGCCCCC
 GGGCCATTGACAACAGCAGGATTGCACAGGTCAAAGGAAGCGGCATGTCCAGTGAAGCAGGGAGCTG
 ACTACGGGAGATTTCCGAGGAGACCTGGACCTACCTGAACAGCCTGTATGGAGGTGGCCCCGAGATTGC
 CATCCGCCAGAGTGTGGCGCAGCCGCTGGGCCAGAGAACCTGCACGGGGAGCAGAAGATCGAAGCCGAG
 ACGCGGGCCGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG229390 representing NM_006676
 Red=Cloning site Green=Tags(s)

MGDSRDLCPHLDSIGEVTKEDLLLKSKGTCQSCGVTGPNLWACLQVACPYVGCGESFADHSTIHAQAKKH
 NLTVNL TTFRLWCYACEKEVFLEQRLAAPLLGSSSKFSEQDSPPSHPLKAVPIA VADEGESESEDDDLK
 PRGLTGMKNLGNSCYMNAALQALSNCPPLTQFFLECGGLVRTDKKPALCKSYQKLVSEVWHKKRPSYVVP
 TSLSHGIKLVNPMFRGYAQQDTQEFRLCLMDQLHEELKEPVVATVALTEARSDSSDTDEKREGDRSPSE
 DEFLSCDSSSDRGE GDGQGRGGSSQAETELLIPDEAGRAISEKERMKDRKFSWGQQRNTNSEQVDEDADV
 DTAMAALDDQPAEAQPPSPRSSPCRTPEPDND AHLRSSSRPCSPVHHHEGHAKLSSSPRASPVRRMAPS
 YVLKKAQVL SAGSRRRKEQRYRSVISDIFDGSILSLVQCLTCDRVSTTVETFQDLSLPIPKEDLAKLHS
 AIYQNVPAKPGACGDSYAAQGWLA FIVEYIRRFVVSCTPSWFGPVVTTLEDCLAFFAADELKGDNMYS
 ERCKKLRNGVKYCKVLR LPEILCIHLKRF RHEVMYSFKINSHVSFPLEGLDLRPFLAKECTSQITTYDLL
 SVICHGHTAGSGHYIAYCQNVINGQWYEFDDQYVTEVHETVVQNAEGYVLFYRKSSEEAMRERQVVS
 LAAMREPSLLRFYVSREWL NKFNTFAEPGPITNQTF L CSHGGIPPHKYHYIDDLVVILPQNVWEHL
 YNRFGGGPAVNHLVYCSICQVEIEALAKRRRIEIDTFIKLNKAFQAEESPGVIYCSMQWFREWEAFV
 KGKDNNEP GPIDNSRIAQVKGSGHVQLKQGADYQGI SEETWTYLNSLYGGGPEIAIRQSV AQPL
 GPENLHGEQKIEAE TRAV

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

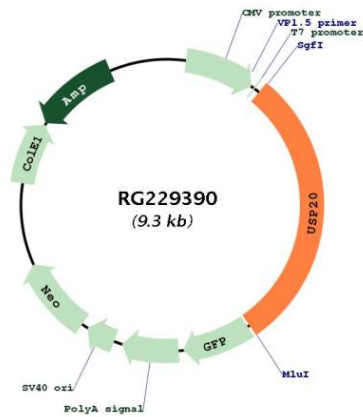


ACCN: NM_006676

ORF Size:	2742 bp
OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_006676.7 , NP_006667.3
RefSeq Size:	4490 bp
RefSeq ORF:	2745 bp
Locus ID:	10868
UniProt ID:	Q9Y2K6
Cytogenetics:	9q34.11
Domains:	UCH, zf-UBP, DUSP
Protein Families:	Druggable Genome, Protease

Gene Summary:

This gene encodes a ubiquitin specific processing protease that was first identified as a substrate of the VHL (von Hippel-Lindau disease) protein E3 ubiquitin ligase complex. In addition to being ubiquitinated by the VHL-E3 ligase complex, this enzyme deubiquitinates hypoxia-inducible factor (HIF)-1 alpha and thereby causes increased expression of HIF-1 alpha targeted genes which play a role in angiogenesis, glucose metabolism, cell proliferation and metastasis. The enzyme encoded by this gene also regulates G-protein coupled receptor signaling by mediating the deubiquitination of beta-2 adrenergic receptor (ADRB2). This enzyme is a ubiquitously expressed thiolester hydrolase. Alternative splicing results in multiple transcript variants encoding the same protein. [provided by RefSeq, Jan 2013]

Product images:


Circular map for RG229390