

Product datasheet for **SC324089**

USP20 (NM_006676) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: USP20 (NM_006676) Human Untagged Clone
Tag: Tag Free
Symbol: USP20
Synonyms: hVDU2; LFR3A; VDU2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC (PS100020)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_006676.4
 CAGGCGGCGGCGGCGCAGTTGCGAGTGCAGGCTCCTTGCCAGAGGCTCCACTACTCCA
 GACCCCTATAGCCCGTCGCTGTCAAGGATGCGAATGCTGGCCGCTTCCT
 GTGGGCTTCGTGTACCCAGAGGTGAGCCAGGCCAGGATGGGGGACTCCAGGGACCTTT
 GCCCTCACCTTGACTCCATAGGAGAGGTGACCAAAGAGGACTTGCTGCTCAAATCTAAGG
 GAACCTGTGAGTGTGGGTACCCGACCAAACCTATGGCCTGTCTGCAGGTTGCC
 GCCCTATGTTGGCTGCGGAGAACTCCTTCGCTGACCACAGCACCATTGACACAGGCAA
 AAAAGCACAACCTGACCGTGAACCTGACCACGTTCCGACTGTGGTGTACGCCTGTGAGA
 AGGAGGTATTCTGGAGCAGCGGCTGGCAGCCCTCTGCTGGGCTCCTTCCAAGTTCT
 CTGAACAGGACTCCCGCCACCCTCCACCTCTGAAAGCTGTTCTATTGCTGTGGCTG
 ATGAAGGAGAGTCTGAGTCAGAGGATGATGACCTGAAACCTCGAGGCCTCACGGGATGA
 AGAACCTCGGGAACCTCTGCTACATGAACGCCGCTGCAGGCCCTGTCCAATTGCCCGC
 CGCTGACTCAGTTCTTCTTGAGTGTGGCGGCCTGGTGGCCACAGATAAGAAGCCAGCC
 TGTGCAAGAGCTACCAGAAGCTGGTCTCTGAGGTCTGGCATAAGAAACGGCCAAGCTACG
 TGGTCCCCACCACTGTCTCATGGGATCAAGTTGGTCAACCAATGTTCCGAGGCTATG
 CCCAGCAGGACACCAAGAGTTCCTTCGCTGCCTGATGGACCAGCTGCACGAGGAGCTCA
 AGGAGCCGGTGGTGGCCACGGTGGCGTGACGGAGGCTCGGGACTCAGATTGAGTGACA
 CGGATGAGAAACGGGAGGGTGACCGGAGCCATCAGAAGATGAGTTCTTGTCTGTGACT
 CGAGCAGTGACCGGGGTGAGGGTGACGGGACGGGCGTGGCGGGGACGCTCGCAGGCGG
 AGACGGAGCTGCTGATCCAGATGAGGCGGGCCGAGCCATCTCTGAGAAGGAGCGGATGA
 AGGACCGCAAGTTCTCCTGGGGCCAGCAGCGTACAAACTCGGAGCAAGTGACGAGGACG
 CTGATGTGGACTGCCATGGCTGCCCTTGACCAGCCCGGAGGCCAGCCCCGCTCAC
 CACGGTCTCCAGCCCTGCCGACGCCAGAGCCGACAATGATGCTCACCTACGAGCT
 CCTCTCGCCCTGCAGCCCCGTCCACCACCAGAGGGCCATGCCAAGCTGTCTAGCAGCC
 CCCCTCGTCAAGCCCCGTGAGGATGGCACCCTGTACGTCTCAAGAAAGCCAGGAT
 TGAGTGTGGCAGCCGGAGGCGGAAGGAGCAGCGCTACCGCAGCGTCATCTCAGACATCT
 TTGACGGTCCATTCTCAGCCTCGTGCAGTGTCTCACCTGTGACCGGTATCCACCACAG



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TGAAACGTTCCAGGACTTATCACTGCCATTCTGAAAGGAGGACCTGGCCAAGCTCC
 ATTCAGCCATCTACCAGAATGTGCCGGCAAGCCAGGCGCTGTGGGGACAGCTATGCCG
 CCCAGGGCTGGCTGGCCTTATTGTGGAGTACATCCGACGGTTTGTGGTATCCTGTACCC
 CCAGCTGGTTTTGGGGCCTGTCGTACCCTGGAAGACTGCCTTGTGCCTTCTTTGCCG
 CTGATGAGTTAAAGGGTGACAACATGTACAGCTGTGAGCGGTGTAAGAAGCTGCGGAACG
 GAGTGAAGTACTGCAAAGTCTGCGGTTGCCGAGATCCTGTGCATTCACCTAAAGCGCT
 TTCGGCACGAGGTGATGTACTCATTCAAGATCAACAGCCACGTCTCCTTCCCCCTCGAGG
 GGCTCGACCTGCGCCCTTCTTCCCAAGGAGTGCACATCCAGATCACCACTACGACC
 TCCTCTCGGTATCTGCCACCACGGCACGGCAGGACGTGGGCACTACATCGCCTACTGCC
 AGAACGTGATCAATGGGCAGTGGTACGAGTTTGTGACCAGTACGTACAGAAAGTCCACG
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 GGTTCACGTGTCCCGCAGTGGCTCAACAAGTTCAACACCTTCGCGGAGCCAGGCCCA
 TCACCAACAGACCTTCTCTGTCTCCACGGAGGCATCCCGCCCAAAATACCACTACA
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 CACAGGTCAAAGGAAGCGGCCATGTCCAGCTGAAGCAGGGAGCTGACTACGGGCAGATTT
 CGGAGGAGACCTGGACCTACCTGAACAGCCTGTATGGAGTGGCCCCGAGATTGCCATCC
 GCCAGAGTGTGGCGCAGCCGCTGGGCCAGAGAACCCTGCACGGGAGCAGAAGATCGAAG
 CCGAGACGCGGGCCGTGTATCTGCTGGGCTAGTCTGTAAGTCCCGCCGCTGGTCCCTC
 CATGGCACTCTGGTCTCTCTCACTCTCCAGAGACCTCACATGTCTCTTTGAACATC
 CAAAGAGCAGGTCCCTGAAAGCACCTTCTGGAGGATGTGGGAGGGCCCTGGACATGGCC
 CGGCCCACTGCTGAGTGCCCGTGTCCCCACAGCCCATGTGCCCAACCCGCGGAAGGC
 GTGTTTGTGCCAGAAGAGAGGGCCGGTGTGCAGAACCCCGCGTGTAAAGAGGCAGA
 AAAGTTGGTTTGGTTTGCAGTAACGCTGCAACTAGAAAATATATGCACTTCAGGCTTGT
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 TCACTGTATCGTTGTGTCCCCACAACGTCTCTTGTAGCTCGGCCAGCTTTGTCC
 CTGGAGCCGATGCTACCCCTGTGACAGAGGCTGCGGCTGGGCCAGAGTCAGGGAGT
 AGCTGTCTTACGCGCTCTCCACTGTGCGATTGGCCCGGAGCCCGAAGACTCGGAGG
 GAGCTGTCTAGGGCCGGTGTGCGCAGCCAGAAGCCCTGGCCAGTGTGAGGCTCACAGGTC
 CTCCCTGGTGGTCCCGCCGACCTCTGCATCTCCTGGGCGTACCAGGAAGGCTCTGAAG
 TCCCGGGTGTCTCAGCACTTCTCCTGCAGACTGAAGACTCTGGACTCATTGCTGATTG
 GAACACCAGGAGGAGGTTGGATTTCTGCCAGTGGGGATGTTTCTGGAGGCAGCTGGTCC
 CCCACACCGCGTCTGCTGAGCCTGCCCTGGATTGGCTGTAATTTGCCTCGAAGTTCA
 GCAGTTCATCTTCATGGGAAATTTGCTGAGCCCCACCAGGAACCGGATGATGAAACAG
 GACAGACTTTCCCTTCTCCAGCAGCAGTGCAGAGCCCGCTGGAGGGATGTGGGG
 GCTGTGCAGGGTGCAGCGCTCAGGTGGATCCTGGGAAGCAGCCTCTGGATGCTGAGTGA
 GGGAGCCACTGAGCACAGCAAGGCACAAAGCCCTGGAGAAACCGCCAGGGCGAGGTGC
 GACCATCATCAGGATCAAAGCAGACGGGGCGTGGTGGGGAAGGGGCTCTGGACCAGAC
 CCCCCACACTACTGCGTCTTTGTTTCTATCAGTCTTTGTAGAAGCAGGTGGTGGTGA
 TTCCAGCAGGTGGTCCCGCAGAGGCCCTGAGGCCTCACTTTTCGGATCTTGTGCCAG
 ATCCTGTCCCTCCCTGTGAGCCTGGGGTCCCTGGCATTGGCCCCAGCCTTCTGAAA
 GCCGGCGTGCAGCCAGAGGCCGACGCTGCACCTGTGCGACGCAGAGAGGCTTCTGTGC
 AGGCTGGGATCGGCCCATGTCTGTGCTCTAGTTTGTGTTCAAATGTCAGAATAAA
 CACAGAATAAATGTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites:

ECORI-NOT

ACCN:

NM_006676

Insert Size:	4500 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_006676.4 , NP_006667.2
RefSeq Size:	4511 bp
RefSeq ORF:	2742 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] Transcript Variant: This variant (1) represents the longest transcript. All three transcript variants encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The extent of this transcript is supported by transcript alignments and orthologous data.