

Product datasheet for **RG202624**

USP5 (NM_003481) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	USP5 (NM_003481) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	USP5
Synonyms:	ISOT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG202624 representing NM_003481
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGAGCTGAGTGAGGAGGCGCTGCTGTCACTATTACCGACGATCCGGTCCCTAAGGCTGGAGACC
 GGGTCCACAAAGACGAGTGCGCCTTCTCCTTCGACACGCCGGAGTCTGAGGGGGCCTCTACATCTGTAT
 GAACACGTTTCTGGGCTTTGGGAAACAGTATGTGGAGAGACATTTCAATAAGACCGGCCAGCGAGTCTAC
 TTGCACCTCCGGCGGACCCGGCGCCGAAAGAGGAGGACCCTGCTACAGGCACTGGAGACCCACCCCGGA
 AGAAGCCACGCGGCTGGCTATTGGTGTGAAGGCGGATTTGACCTTAGCGAGGAGAAGTTGAATTAGA
 CGAGGATGTGAAGATTGTCAATTTGCCAGATTACCTGGAGATTGCCCGGATGGACTGGGGGACTGCCT
 GACATTGTGAGAGATCGGGTGACCACTGAGTGGAGGCCCTACTGTGCGCGGACTCAGCCTCCCGCAAGC
 AGGAGGTGCAGGCATGGGATGGGAAAGTACGGCAGGTGTCTAAGCATGCCTTCAGCCTCAAGCAGTTGGA
 CAACCCTGCTCGAATCCCTCCCTGTGGCTGGAAGTGTCTCAAGTGTGACATGAGAGAGAACCTGTGGCTC
 AACCTGACTGATGGCTCCATCCTCTGTGGCGACGCTACTTCGATGGCAGTGGGGCAACAACACGCTG
 TGGAGCACTACCGAGAGACAGGCTACCCGTTAGCTGTCAAGCTGGGCACCATCACCCCTGATGGAGCTGA
 CGTGTACTCATATGATGAGGATGACATGGTCTGGACCCAGCCTGGCTGAGCACCTGTCCCACTTCGGC
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 TTGGTGAATGGGAGCTGATCCAGGAGTCAGGTGTGCCACTCAAGCCCCTGTTTGGGCTGGCTACACAGG
 CATCCGGAACCTGGGTAAACAGCTGCTACCTCAACTCTGTGGTCCAGGTGCTCTTCAGCATCCCTGACTTC
 CAGAGGAAGTATGTGGATAAGCTGGAGAAGATCTTCCAGAATGCCCGACGAGCCCTACCCAGGATTTCA
 GCACCCAGGTGGCAAGCTGGCCATGGCCTTCTCTCGGGGAGTATTCCAAGCCAGTACCGAGTGGG
 CGATGGGGAGCGGGTGCCAGAACAAGGAAGTTCAAGATGGCATTTGCCCTCGGATGTTCAAGGCCCTC
 ATCGGCAAGGGCCACCCTGAATTCTCCACCAACCGGCAGCAGGATGCCAGGAGTTCTTCTTCACCTTA
 TCAACATGGTGGAGAGGAATTGCCGAGCTCTGAAAATCCTAATGAAGTGTTCGGCTTCTTGGTGGAGGA
 AAAGATCAAGTGCCTGGCCACAGAGAAGGTGAAGTACCCAGCGAGTTGACTACATCATGCAGCTGCCT
 GTGCCCATGGATGCAGCCCTTAACAAAGAGGAGCTTCTGGAGTACGAGGAGAAGAAGCGGCAAGCCGAAG
 AGGAGAAGATGGCACTGCCAGAAGTGGTTCGGGCCCAGGTGCCCTTCAGCTCTTGCTGGAGGCCTACGG
 GGCCCTGAGCAGGTGATGACTTCTGGAGCACGGCCCTGCAGGCCAAGTCAGTAGCTGTCAAGACCACA
 CGATTTGCCTCATTCCCTGACTACCTGGTCATCCAGATCAAGAAGTTCACCTTCGGCTTAGACTGGGTGC
 CCAAGAACTGGATGTGTCCATCGAGATGCCAGAGGAGCTCGACATCTCCAGTTGAGGGGCACAGGGCT
 GCAGCCCAGGAGAGGAGGAGCTGCCAGACATTGCCCCACCCTGGTCACTCCGGATGAGCCAAAGCGCCC
 ATGCTGGATGAATCAGTCATCATCCAGCTGGTGGAGATGGGATTCCTATGGACGCTGCCGCAAAGCTG
 TCTACTACAGGGCAACAGCGGGGCTGAGGCCGCCATGAAGTGGTCACTGTACACATGGATGATCCAGA
 TTTTGCAAACCCCTCATCCTGCCTGGCTCTAGTGGGCCGGGCTCCACAAGCGCAGCAGCCGACCCCT
 CCTGAGGACTGTGTGACCACCATTTGTCTCCATGGGCTTCTCCGGGACCAGGCCTTGAAAGCGCTGCGGG
 CCACGAACAATAGTTTGAACGGGCTGTGGACTGGATCTTCAGTCACATTGACGACCTGGATGCTGAAGC
 TGCCATGGACATCTCAGAGGGCCGCTCAGCTGCCGACTCCATCTCTGAGTCTGTGCCAGTGGGACCTAAA
 GTCCGGGATGGTCTGGAAAGTATCAGCTCTTTGCCCTTATTAGTCACATGGGCACCTCTACCATGTGTG
 GTCACTACGTCTGCCACATCAAGAAAGAAGGCAGATGGGTGATCTACAATGACCAGAAAGTGTGTGCTC
 CGAGAAGCCGCCAAGGACCTGGGCTACATCTACTTCTACCAGAGAGTGGCCAGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG202624 representing NM_003481
 Red=Cloning site Green=Tags(s)

MAELSEEALLSVLPTIRVPKAGDRVHKDECAFSFDTPESEGGLYICMNTFLGFGKQYVERHFNKTGQRVY
 LHLRRTRRPKEEDPATGTGDPPrKKPTRLAIGVEGGFDLSEEKFEDEDVKIVILPDYLEIARDGLGGLP
 DIVRDRVTSAVEALLSADSASRKQEVQAWDGEVRQVSKHAFSLKQLDNPARIPPCGWKCSKCDMRENWL
 NLTDGSILCGRRYFDGSGGNNHAVEHYRETGYPLAVKLGTITPDGADVSYDEDDMVLDPSLAEHLSHFG
 IDMLKMQKTDKTMTELEIDMNQRIGEWELIQESGVPLKPLFGPGYTGIRNLGNSCYLNSVVQVLFSSIPDF
 QRKYVDKLEKIFQNAPTDPDQDFSTQVAKLGHGLLSGEYSKVPVPSGDGERVPEQKEVQDGIAPRMFKAL
 IGKGHPEFSTNRQQDAQEFFLHLINMVERNCRSSENPNVFRFLVEEKIKCLATEKVKYTQRVDYIMQLP
 VPMDAALNKEELLEYYEKKRQAEKKMALPELVRAQVPFSSCLEAYGAPEQVDDFWSTALQAKSVAVKTT
 RFASFPDYLVIQIKKFTFGLDWVPKKLDVSIEMPEELDISQLRGTGLQPGEELPDIAPLVTPDEPKAP
 MLDESVIIQLVEMGFPMDACRKAVYYTGNSGAEAMNWMVSHMDDPDFANPLILPGSSGPGSTSAADPP
 PEDCVTTIVSMGFSRDQALKALRATNNSLERAVDWIFSHIDDLDAEAAMDISEGRSAADSISESVPVGP
 VRDGPQKYQLFAFISHMGTSTMCGHYVCHIKKEGRWVIYNDQKVCASEKPPKDLGYIYFYQVRAS

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

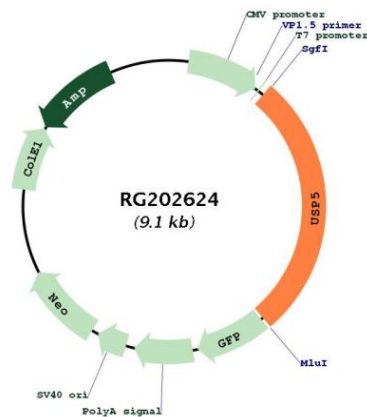
Cloning Scheme:



ACCN:	NM_003481
ORF Size:	2505 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_003481.3</u>
RefSeq Size:	3102 bp
RefSeq ORF:	2508 bp
Locus ID:	8078
UniProt ID:	<u>P45974</u>
Cytogenetics:	12p13.31
Domains:	UBA, UCH, zf-UBP
Protein Families:	Druggable Genome, Protease
Gene Summary:	Ubiquitin (see MIM 191339)-dependent proteolysis is a complex pathway of protein metabolism implicated in such diverse cellular functions as maintenance of chromatin structure, receptor function, and degradation of abnormal proteins. A late step of the process involves disassembly of the polyubiquitin chains on degraded proteins into ubiquitin monomers. USP5 disassembles branched polyubiquitin chains by a sequential exo mechanism, starting at the proximal end of the chain (Wilkinson et al., 1995 [PubMed 7578059]).[supplied by OMIM, Mar 2010]

Product images:



Circular map for RG202624