

Product datasheet for **MG209481**

Usp2 (BC017517) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Usp2 (BC017517) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Usp2
Synonyms:	B930035K21Rik; Ubp41
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209481 representing BC017517
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCCCAGCTCTCTCCACCCTGAAGCGCTATACAGAATCGTCCCGCTACACAGATGCCCCCTATGCCA
 AACCGGGCTATGGCACCTACACCCTTCTTCTATGGGGCAACCTGGCCGCTCCTTCTTGAGAGAAGGA
 AAAACTTGGTTTCAAGCCGGTCTCCCCACCAGCTTCTCCACGGCCCCGCACCTACGGCCCTCTCC
 ATTCTGGACTGTGACAGGGGCGCCCTGCTGAGATCTGACATCATTGGGAGTAGTAAGCGGTGAGAGA
 GCCAGACCCGTGGCAATGAAAGGCCCTCGGGCAGTGGACTCAACGGAGGCAGTGGATTTTCTTATGGAGT
 TTCCAGCAACTCCCTCAGCTACCTGCCATGAATGCCAGAGACCAGGGGTGACCCTGAGCCAGAAGAAA
 TCGAACAGCCAATCAGACCTGGCCGGGATTTCTCCAGCTCCGGACTTCAGATGGCTACCGGACTTCAG
 ATGGCTACCGGACCTCAGAGGGCTTAGGATAGACCCTGGAAACCTGGGTCGAGCCCCATGCTGGCCCG
 CACGCGTAAGGAGCTCTGTGCCCTGCAGGGCTCTACCAAGCAGCCAGCGTTCTGAGTACCTAACAGAC
 TATCTGGAGAACTATGGTCGAAAGGGCAGTGCACCACAGGTGCTCAGCAAGCCCTCCTCCCTCCCGAG
 TCCTGAAGTCTCAGTCCCACCTACCGACCAAGTGGCCGTTACACACTGTGGGAGAAGGCAAGGGCCA
 GGCTCTGGGCCAGCCGCTCCAGTTCTCCAGGGCGAGACACCATGAATTCAAAGAGTGCCAGGGTCTG
 GCTGGTCTTCAAACCTTGGGAACACGTGCTTCATGAACTCAATCTTCAAGTGCCTGAGCAACACCCGAG
 AGCTGAGAGATTACTGCCTCCAGAGGCTGTACATGCGGGACCTCGGCCACACCAGCAGCGCTCACACGGC
 CCTCATGGAAGAGTTTGCAAAATAATCCAGACCATATGGACGTCGTCCCCAATGATGTGGTGAGCCCA
 TCTGAGTTCAAGACCCAGATCCAGAGATATGCCACGCTTTCATGGGCTATAATCAGCAGGATGCTCAGG
 AATTCCTTCGTTTCTTCTGGATGGTCTCCACAATGAGGTGAACCGGGTGGCAGCAAGCCCTAAGGCCAG
 CCCTGAGACCCTTGATCATCTCCCTGATGAAGAAAAGGGGCGACAGATGTGGAGGAAGTATCTGGAAAGG
 GAAGACAGTCCGATTGGGGATCTCTTCTGGGACGCTGAAGAGCTCCCTCACATGCACCGATTGTGGCT
 ACTGCTCTACAGTCTTCGATCCCTTCTGGGATCTCTCGTTGCCCATCGCAAAGAGAGTTACCCTGAGGT
 GACGTTAATGGATTGTATGAGGCTCTTACCAAAGAGGACATATTGGATGGTGTGAGAAGCCAACCTTGC
 TGCCGCTGCCGAGCCAGAAAACGATGCATAAAAAAGTTCTCTGTCCAGAGGTTCCCAAAGATCTTGGTGC
 TCCACCTGAAGCGATTCTCAGAATCCAGGATACGAACCAGCAAGCTCACAACTTTGTGAATTTCCCACT
 AAGAGACCTGGACTTGAGAGAATTTGCTTCAGAAAACCAACCATGCTGTTTACAACCTGTATGCTGTG
 TCCAATCACTCCGGAACCACCATGGGAGGCCACTATACAGCCTACTGCCGAAGTCCGGTTACAGGCGAAT
 GGCACACTTTCAATGATTCCAGTGTACACCCATGTCCTCCAGCCAAGTGCACACCGACGACGCCTATTT
 GCTCTTCTATGAACTGGCCAGTCCACCCTCCCGTATG

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG209481 representing BC017517
 Red=Cloning site Green=Tags(s)

MSQLSSTLKRYTESSRYTDAPYAKPGYGTYPSSYGANLAASFLEKEKLGFKVPVSPTSFLPRPRTYGPSS
 ILDCDRGRPLLRSDIIGSSKRSESQTRGNERPSGSLNNGSGFSYGVSSNSLSYLPMNARDQGVTLNQK
 SNSQSDLARDFSSLRTSDGYRTSDGYRTSEGFRIDPGLGRSPMLARTRKELCALQLYQAASRSEYLT
 YLENYGRKGSAPQVLQAPPSPRVPEVLSPTYRPSGRYTLWEKSKQASGSPSRSSSPGRDTMNSKSAQGL
 AGLRNLGNTCFMNSILQCLSNRELRDYCLQRLYMRDLGHTSSAHTALMEEFAKLIQTIWTSPPNDVVSP
 SEFKTQIQRYAPRFMGYNQQAQEFLLRLLDGLHNEVNRVAARPKASPETLDHLPDEEKGRQMWRKYLER
 EDSRIGDLFVQGLKSSLTCTDCGYCSTVDFPFDLSLPIAKRGYPEVTLMDCMRLFTEKIDLDGDEKPTC
 CCRARARKCIKKFSVQRFPKILVLHLKRFSESRIRTSKLTTFVNFPLRDLDLREFASENTNHAVNYLYAV
 SNHSGTTMGHYTAYCRSPVTGEWHFNDSSVTPMSSSQVRTSDAYLLFYELASPPSRM

SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

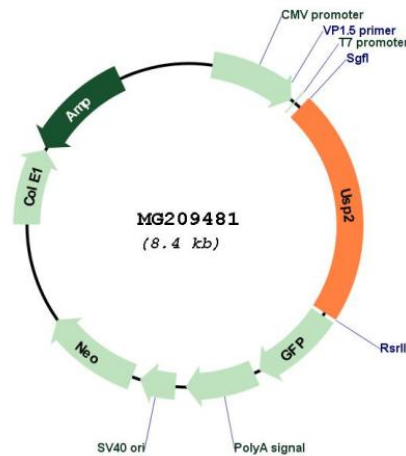
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: BC017517
 ORF Size: 1859 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:	<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:	BC017517 , AAH17517
RefSeq Size:	2115 bp
RefSeq ORF:	1859 bp
Locus ID:	53376
Cytogenetics:	9 A5.1
Gene Summary:	Hydrolase that deubiquitinates polyubiquitinated target proteins such as MDM2, MDM4 and CCND1 (By similarity). Isoform 1 and isoform 2 possess both ubiquitin-specific peptidase and isopeptidase activities (By similarity). Deubiquitinates MDM2 without reversing MDM2-mediated p53/TP53 ubiquitination and thus indirectly promotes p53/TP53 degradation and limits p53 activity (By similarity). Has no deubiquitinase activity against p53/TP53 (By similarity). Prevents MDM2-mediated degradation of MDM4 (By similarity). Plays a role in the G1/S cell-cycle progression in normal and cancer cells (By similarity). Plays a role in the regulation of myogenic differentiation of embryonic muscle cells (By similarity). Regulates the circadian clock by modulating its intrinsic circadian rhythm and its capacity to respond to external cues (PubMed:23213472, PubMed:25238854, PubMed:26756164). Associates with clock proteins and deubiquitinates core clock component PER1 but does not affect its overall stability (PubMed:23213472). Regulates the nucleocytoplasmic shuttling and nuclear retention of PER1 and its repressive role on the clock transcription factors CLOCK and ARNTL/BMAL1 (PubMed:25238854).[UniProtKB/Swiss-Prot Function]