

## Product datasheet for **MG226435**

### Usp2 (NM\_198091) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Usp2 (NM_198091) 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)
ORF Nucleotide Sequence:	>MG226435 representing NM_198091 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGTACCTCCTACACGGTGACCCTGCCGAAGAGCCCCCGCCGCCACTTCCCGCTCTCGCAAGG  
AGCTGCGGCCGCGCTCCCTCTGTCCCCGTCCCTGCTGCTCTCCACCTTCGTGGGCTTCTGCTCAACAA  
AGCCAAGAATTCAAAGAGTGCCAGGGTCTGGCTGGTCTTCGAAACCTTGGGAACACGTGCTTCATGAAC  
TCAATTCTCAGTGCCTGAGCAACACCCGAGAGCTGAGAGATTACTGCCTCCAGAGGCTGTACATGCGGG  
ACCTCGGCCACACCAGCAGCGCTCACACGGCCCTCATGGAAGAGTTTGCAAACTAATCCAGACCATATG  
GACGTCGTCCCCAATGATGTGGTGAGCCATCTGAGTTCAAGACCCAGATCCAGAGATATGCGCCACGC  
TTCATGGGCTATAATCAGCAGGATGCTCAGGAATTCCTTCGTTTCTTCTGGATGGTCTCCACAATGAGG  
TGAACCGGGTGGCAGCAAGGCCTAAGGCCAGCCCTGAGACCTTGATCATCTCCCTGATGAAGAAAAGGG  
GCGACAGATGTGGAGGAAGTATCTGAAAGGGAAGACAGTCGGATTGGGGATCTCTTCGTTGGGCAGCTG  
AAGAGTCCCTCACATGCACCGATTGTGGCTACTGCTCTACAGTCTTCGATCCCTTCTGGGATCTCTCGT  
TGCCCATCGAAAGAGAGGTTACCCTGAGGTGACGTTAATGGATTGTATGAGGCTTTCACCAAAGAGGA  
CATATTGGATGGTGATGAGAAGCCAATTGCTGCCGCTGCCGAGCCAGAAAACGATGCATAAAAAAGTTC  
TCTGTCAGAGGTTCCCAAAGATCTTGGTGTCCACCTGAAGCGATTCTCAGAATCCAGGATACGAACCA  
GCAAGCTCACAACATTTGTGAATTTCCCACTAAGAGACCTGGACTTGAGAGAATTTGCTTCAGAAAACAC  
CAACCATGCTGTTTACAACCTGTATGCTGTGTCCAATCACTCCGGAACCACCATGGGAGGCCACTATAACA  
GCCTACTGCCAAGTCCGGTTACAGGCGAATGGCACACTTTCAATGATTCCAGTGTACACCCATGTCTCT  
CCAGCCAAGTGCGCACCAGCGACGCTATTTGCTCTTCTATGAACTGGCCAGTCCACCCTCCCGTATG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG226435 representing NM\_198091  
Red=Cloning site Green=Tags(s)

MRTSYTVTLPEEPPAAHFALAKELRPRSPLSPSLLLSTFVGLLLNKAKNSKSAQGLAGLRNLGNTCFMN  
 SILQCLSNTRCLRQRLYMRDLGHTSSAHTALMEEFAKLIQTIWTSSPNDVVPSEFKTQIQRYAPR  
 FMGYNQDAQEFLRFLDGLHNEVNRVAARPKASPETLDHLPDEEKGRQMWKYLKREDSTRIGDLFVGQL  
 KSSLTCTDCGYCSTVDFPFWDLSPPIAKRGYPEVTLMDCMRLFTEKEDILDGDEKPTCCRCRARKRCIKKF  
 SVQRFPKILVLHLKRFSESRIKSLTTFVNFPLRDLDLREFASENTNHAVYNLYAVSNHSGTMMGGHYT  
 AYC RSPVTGEWHTFNDSSVTPMSSSQVRTSDAYLLFYELASPPSRM

TRTRPLE - GFP Tag - V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1225\\_c03.zip](https://cdn.origene.com/chromatograms/ja1225_c03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_198091

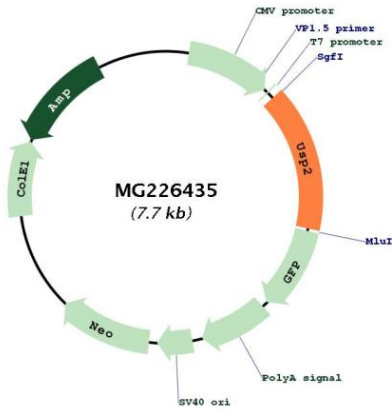
**ORF Size:** 1188 bp

**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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_198091.2</a> , <a href="#">NP_932759.1</a>
<b>RefSeq Size:</b>	3241 bp
<b>RefSeq ORF:</b>	1191 bp
<b>Locus ID:</b>	53376
<b>UniProt ID:</b>	<a href="#">O88623</a>
<b>Cytogenetics:</b>	9 A5.1
<b>Gene Summary:</b>	<p>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]</p>

Product images:



Circular map for MG226435