

## Product datasheet for **MC228489**

### **Usp2 (NM\_198092) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Usp2 (NM_198092) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Usp2
Synonyms:	B930035K21Rik; Ubp41
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC228489 representing NM\_198092  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATG**TCC**AGCTCTCCTCCACCCTGAAGCGCTATACAGAATCGTCCCGCTACACAGATGCCCCCTATGCCA  
 AACCGGCTATGGCACCTACACCCTTCTTCTATGGGGCCAACCTGGCCGCTCCTTCCTGGAGAAGGA  
 AAAACTTGGTTTCAAGCCGGTCTCCCCACCAGCTTCTCCACGGCCCCGCACCTACGGCCCTCCTCC  
 ATTCTGGACTGTGACAGGGGCCGCCCTGCTGAGATCTGACATCATTGGGAGTAGTAAGCGGTGAGAGA  
 GCCAGACCCGTGGCAATGAAAGGCCCTCGGGCAGTGGACTCAACGGAGGCAGTGGATTTTCTTATGGAGT  
 TTCCAGCAACTCCCTCAGCTACCTGCCATGAATGCCAGAGACCAGGGGTGACCCTGAGCCAGAAGAAA  
 TCGAACAGCCAATCAGACCTGGCCGGGATTTCTCCAGCTCCGGACTCAGATGGCTACCGGACTTCAG  
 ATGGCTACCGGACCTCAGAGGGCTTAGGATAGACCCTGGAACTGGGTGCGAGCCCCATGCTGGCCCC  
 CACGCGTAAGGAGCTCTGTGCCCTGCAGGGCTCTACCAAGCAGCCAGCGTTCTGAGTACCTAACAGAC  
 TATCTGGAGAACTATGGTCGAAAGGGCAGTGCACCACAGGTGCTCACGCAAGCCCTCCTCCCTCCCGAG  
 TCCCTGAAGTCTCAGTCCCACCTACCGACCAAGTGGCCGTTACACACTGTGGGAGAAGGCAAGGGCCA  
 GGCTCTGGGCCAGCCGCTCCAGTTCTCCAGGGCGAGACACCATGAATCAAAGAGTGGCCAGGGTCTG  
 GCTGGTCTCGAAACCTTGGGAACACGTGCTTCATGAATCAATCTTCAAGTGCCTGAGCAACACCCGAG  
 AGCTGAGAGATTACTGCCTCCAGAGGCTGTACATGCGGGACCTCGGCCACACCAGCAGCGCTCACACGGC  
 CCTCATGGAAGAGTTTGCAAACTAATCCAGACCATATGGACGTGTCGCCCAATGATGTGGTGAGCCCA  
 TCTGAGTCAAGACCCAGATCCAGAGATATGCGCCACGCTTATGGGCTATAATCAGCAGGATGCTCAGG  
 AATTCCTCGTTTCTTCTGGATGGTCTCCACAATGAGGTGAACCGGGTGGCAGCAAGGCCAAGGCCAG  
 CCCTGAGACCCTTGATCATCTCCCTGATGAAGAAAAGGGCGACAGATGTGGAGGAAGTATCTGGAAAGG  
 GAAGACAGTCGGATTGGGGATCTCTCGTTGGGACGCTGAAGAGCTCCCTCACATGCACCGATTGTGGCT  
 ACTGCTTACAGTCTTCGATCCCTTCTGGGATCTCTCGTTGCCCATCGCAAAGAGAGGTTACCCTGAGGT  
 GACGTTAATGGATTGTATGAGGCTCTTCCACAAAGAGGACATATTGGATGGTGATGAGAAGCCAACCTTGC  
 TGCCGCTGCCGAGCCAGAAAACGATGCATAAAAAAGTTCTCTGTCCAGAGGTTCCCAAAGATCTTGGTGC  
 TCCACCTGAAGCGATTCTCAGAATCCAGGATACGAACCAGCAAGCTCACAACTTTGTGAATTTCCCACT  
 AAGAGACCTGGACTTGAGAGAATTTGCTTCAGAAAACCAACCATGCTGTTTACAACCTGTATGCTGTG  
 TCCAATCACTCCGGAACCACCATGGGAGGCCACTATACAGCCTACTGCCGAAGTCCGGTTACAGGGCAAT  
 GGCACACTTTCATGATTCCAGTGTACACCCATGTCTCCAGCCAAGTGGCACCAGCGACGCCTATTT  
 GCTCTTCTATGAACTGGCCAGTCCACCCTCCCGTATG**TAG**

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-RsrII

**ACCN:** NM\_198092

**Insert Size:** 1860 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

**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.

**RefSeq:** [NM\\_198092.2](#), [NP\\_932760.2](#)

**RefSeq Size:** 3882 bp

**RefSeq ORF:** 1860 bp

**Locus ID:** 53376

**UniProt ID:** [O88623](#)

**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]

Transcript Variant: This variant (3) represents the longest transcript and encodes the longer protein (isoform Usp2-69). Variants 1 and 3 encode the same protein.