

Product datasheet for **MR230700**

Usp2 (NM_198092) Mouse Tagged ORF Clone

Product data:

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



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ORF Nucleotide Sequence:

>MR230700 representing NM_198092
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATG**TCCAGCTCTCCTCCACCCTGAAGCGCTATACAGAATCGTCCCGCTACACAGATGCCCCCTATGCCA**
AACCGGCTATGGCACCTACACCCTTCTTCTATGGGCCAACCTGGCCGCTCCTTCCTGGAGAAGGA
AAAACCTGGTTTCAAGCCGCTCTCCCCACCAGCTTCTCCACGGCCCCGCACCTACGGCCCTCCTCC
ATTCTGGACTGTGACAGGGGCCGCCCTGCTGAGATCTGACATCATTGGGAGTAGTAAGCGGTGAGAGA
GCCAGACCCGTGGCAATGAAAGGCCCTCGGCCAGTGGACTCAACGGAGGCAGTGGATTTTCTTATGGAGT
TTCCAGCAACTCCCTCAGCTACCTGCCATGAATGCCAGAGACCAGGGGTGACCCTGAGCCAGAAGAAA
TCGAACAGCCAATCAGACCTGGCCGGGATTTCTCCAGCTCCGGACTCAGATGGCTACCGGACTTCAG
ATGGCTACCGGACCTCAGAGGGCTTAGGATAGACCCTGGAACTGGGTGCGAGCCCCATGCTGGCCCC
CACGCGTAAGGAGCTCTGTGCCCTGCAGGGCTCTACCAAGCAGCCAGCGTTCTGAGTACCTAACAGAC
TATCTGGAGAACTATGGTCGAAAGGGCAGTGCACCACAGGTGCTCACGCAAGCCCTCCTCCCTCCCGAG
TCCCTGAAGTCCCTCAGTCCCACCTACCGACCAAGTGGCCGTTACACACTGTGGGAGAAGGCAAGGGCCA
GGCCTCTGGGCCAGCCGCTCCAGTTCTCCAGGGCGAGACACCATGAATCAAAGAGTGGCCAGGGTCTG
GCTGGTCTTCAAACCTTGGGAACACGTGCTTCATGAATCAATCTTCAAGTGCCTGAGCAACACCCGAG
AGCTGAGAGATTACTGCCTCCAGAGGCTGTACATGCGGGACCTCGGCCACACCAGCAGCGCTCACACGGC
CCTCATGGAAGAGTTTGCAAACTAATCCAGACCATATGGACGTCGTCGCCCAATGATGTGGTGAGCCCA
TCTGAGTCAAGACCCAGATCCAGAGATATGCGCCACGCTTATGGGCTATAATCAGCAGGATGCTCAGG
AATTCCTCGTTCTTCTGGATGGTCTCCACAATGAGGTGAACCGGGTGGCAGCAAGGCCCTAAGGCCAG
CCCTGAGACCCTTGATCATCTCCCTGATGAAGAAAAGGGCGACAGATGTGGAGGAAGTATCTGGAAAGG
GAAGACAGTCGGATTGGGGATCTCTCGTTGGGACGCTGAAGAGCTCCCTCACATGCACCGATTGTGGCT
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GACGTTAATGGATTGTATGAGGCTTTACCAAAGAGGACATATTGGATGGTGATGAGAAGCCAACCTTGC
TGCCGTGCCGAGCCAGAAAACGATGCATAAAAAAGTTCTCTGTCCAGAGGTTCCCAAAGATCTTGGTGC
TCCACCTGAAGCGATTCTCAGAATCCAGGATACGAACCAGCAAGCTCACAACTTTGTGAATTTCCCACT
AAGAGACCTGGACTTGAGAGAATTTGCTTCAGAAAACCAACCATGCTGTTACAACCTGTATGCTGTG
TCCAATCACTCCGGAACCACCATGGGAGGCCACTATACAGCCTACTGCCGAAGTCCGGTTACAGGCGAAT
GGCACACTTTCATGATTCCAGTGTACACCCATGTCTCCAGCCAAGTGGCACCAGCGACGCCTATTT
GCTCTTCTATGAAGTGGCCAGTCCACCCTCCCGTATG

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

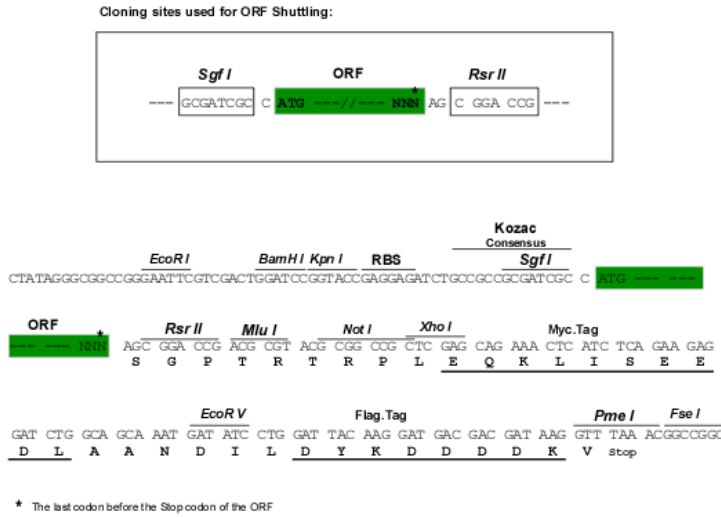
>MR230700 representing NM_198092
 Red=Cloning site Green=Tags(s)

MSQLSSTLKRYTESSRYTDAPYAKPGYGYTPSSYGANLAASFLEKEKLGFKPVSPSFLPRPRTYGPSS
 ILDCDRGRPLLRSDIIGSSKRSESQTRGNERPSGSLNGGSGFSYGVSSNSLSYLPMNARDQGVTL**SQKK**
 SNSQSDLARDFSSLRTSDGYRTSDGYRTSEGFRIDPGNLGRSPMLARTRKELCALQGLYQAASRSEYLT
 YLENYGRKGSAPQVLTQAPPPSRVPEVLSPTYRPSGRYTLWEKSKGQASGSPSRSSSPGRDTMNSKSAQGL
 AGLRNLGNTCFMNSILQCLSNRELRDYCLQRLYMRDLGHTSSAHTALMEEFAKLIQTIWTSPPNDVVSP
 SEFKTQIQRYAPRFMGYNQQDAQEFLRFLLDGLHNEVNRVAARPKASPETLDHLPDEEKGRQMWKYLER
 EDSRIGDLFVGQLKSSLTCTDCGYCSTVDFPFWDLSLPIAKRGYPEVTLMDCMRLFTEKIDLDGDEKPTC
 CRCRARKRCIKKFSVQRFPKILVLHLKRFSESIRTSKLTTFVNFPLRDLDLREFASENTNHAVYNYLAV
 SNHSGTTMGGHYAYCRSPVTGEWHTFNDSSVTPMSSSQVRTSDAYLLFYELASPPSRM

SGP**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_198092

ORF Size: 1857 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.

RefSeq: [NM_198092.2](#), [NP_932760.2](#)

RefSeq Size: 3882 bp

RefSeq ORF: 1860 bp

Locus ID: 53376

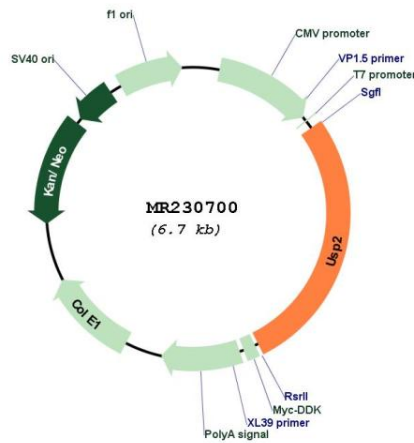
UniProt ID: [O88623](#)

Cytogenetics: 9 A5.1

MW: 69.5 kDa

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]

Product images:



Circular map for MR230700