

Product datasheet for **MR209481**

Usp2 (NM_016808) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Usp2 (NM_016808) 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:

>MR209481 representing NM_016808
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCACAGCTCTCCTCCACCCTGAAGCGCTATACAGAATCGTCCCGCTACACAGATGCCCCCTATGCCA
 AACCGGCTATGGCACCTACACCCTTCTTCTATGGGCCAACCTGGCCGCTCCTTCCTGGAGAAGGA
 AAAACTTGGTTTCAAGCCGCTCTCCCCACCAGCTTCTCCACGGCCCCGCACCTACGGCCCTCCTCC
 ATTCTGGACTGTGACAGGGGCCGCCCTGCTGAGATCTGACATCATTGGGAGTAGTAAGCGGTGAGAGA
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 TTCCAGCAACTCCCTCAGCTACCTGCCATGAATGCCAGAGACCAGGGGTGACCCTGAGCCAGAAGAAA
 TCGAACAGCCAATCAGACCTGGCCGGGATTTCTCCAGCTCCGGACTCAGATGGCTACCGGACTTCAG
 ATGGCTACCGGACCTCAGAGGGCTTAGGATAGACCCTGGAACTGGGTGCGAGCCCCATGCTGGCCCC
 CACGCGTAAGGAGCTCTGTGCCCTGCAGGGCTCTACCAAGCAGCCAGCGTTCTGAGTACCTAACAGAC
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 GGCTCTGGGCCAGCCGCTCCAGTTCTCCAGGGCAGACACCATGAATCAAAGAGTGGCCAGGGTCTG
 GCTGGTCTCGAAACCTTGGGAACACGTGCTTCATGAATCAATCTTCAAGTGCCTGAGCAACACCCGAG
 AGCTGAGAGATTACTGCCTCCAGAGGCTGTACATGCGGGACCTCGGCCACACCAGCAGCGCTCACACGGC
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 TCTGAGTCAAGACCCAGATCCAGAGATATGCCACGCTTATGGGCTATAATCAGCAGGATGCTCAGG
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 GACGTTAATGGATTGTATGAGGCTCTTACCAAAGAGGACATATTGGATGGTGATGAGAAGCCAACTTGC
 TGCCGCTGCCGAGCCAGAAAACGATGCATAAAAAAGTTCTCTGTCCAGAGGTTCCCAAAGATCTTGGTGC
 TCCACCTGAAGCGATTCTCAGAAATCCAGGATACGAACCAGCAAGCTCACAACTTTGTGAATTTCCCACT
 AAGAGACCTGGACTTGAGAGAATTTGCTTCAGAAAACCAACCATGCTGTTTACAACCTGTATGCTGTG
 TCCAATCACTCCGGAACCACCATGGGAGGCCACTATACAGCCTACTGCCGAAGTCCGGTTACAGGCGAAT
 GGCACACTTTCAATGATTCCAGTGTACACCCATGTCTCCAGCCAAGTGGCACCAGCGACGCCTATTT
 GCTCTTCTATGAACTGGCCAGTCCACCCTCCCGTATG

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

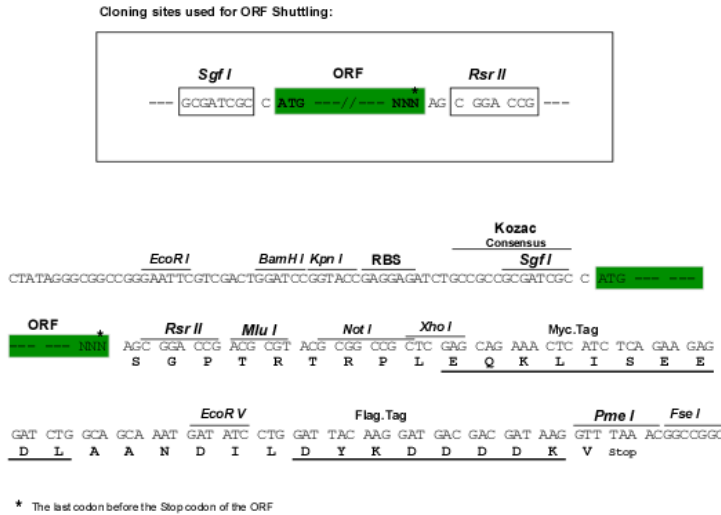
>MR209481 representing NM_016808
 Red=Cloning site Green=Tags(s)

MSQLSSTLKRYTESSRYTDAPYAKPGYGYTPSSYGANLAASFLEKEKLGFKPVSPSFLPRPRTYGPSS
 ILDCDRGRPLLRSDIIGSSKRSESQTRGNERPSGSLNGGSGFSYGVSSNSLSYLPNMARDQGVTLQK
 SNSQSDLARDFSSLRTSDGYRTSDGYRTSEGFRIDPGLGRSPMLARTRKELCALQGLYQAASRSEYLT
 YLENYGRKGSAPQVLTQAPPSRVPEVLSPTYRPSGRYTLWEKSKGQASGSPSRSSSPGRDTMNSKSAQGL
 AGLRNLGNTCFMNSILQCLSNRELRDYCLQRLYMRDLGHTSSAHTALMEEFAKLIQTIWTSPPNDVVSP
 SEFKTQIQRYAPRFMGYNQQAQEFLLRFLLDGLHNEVNRVAARPKASPETLDHLPDEEKGRQMWRYLER
 EDSRIGDLFVGQLKSSLTCTDCGYCSTVDFPFWDLSLPIAKRGYPEVTLMDCMRLFTEKEDILDGDEKPTC
 CRCRARKRCIKKFSVQRFPKILVLHLKRFSESRIKRTSKLTTFFVNFPLRDLDLREFASENTNHAVNYLYAV
 SNHSGTTMGGHYTAYCRSPVTGEWHTFNDSSVTPMSSSQVRTSDAYLLFYELASPPSRM

SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_016808

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_016808.2](#), [NP_058088.2](#)

RefSeq Size: 3785 bp

RefSeq ORF: 1860 bp

Locus ID: 53376

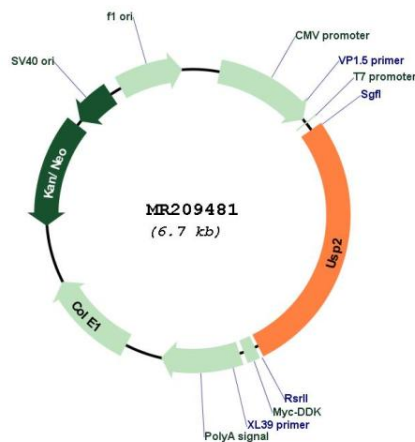
UniProt ID: [O88623](#)

Cytogenetics: 9 A5.1

MW: 70 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 MR209481