

Product datasheet for RC217695

USP2 (NM_171997) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	USP2 (NM_171997) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	USP2
Synonyms:	UBP41; USP9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217695 representing NM_171997 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGCACCTCGTACACCGTGACCCTGCCGAGGACCCCCCGCCGCCCTTTCCCGCCCTCGCCAAGG
AGCTGCGGCCGCTCCCTCTCTCCCCGTCCTGCTGCTCTCCACCTTCGTGGGCTCTGCTCAACAA
AGCCAAGAATTCTAAGAGTGCCAGGGTCTGGCTGGTCTTCGAAACCTTGGGAACACGTGCTTCATGAAC
TCAATTCTGCAGTGCCTGAGCAACTCGGGAGTTGAGAGATTACTGCCTCCAGAGGCTCTACATCGGG
ACCTGCACCACGGCAGCAATGCACACACAGCCCTCGTGAAGAGTTTGCAAACTAATTCAGACCATATG
GACTTCATCCCCAATGATGTGGTGAGCCATCTGAGTTCAAGACCCAGATCCAGAGATATGCACCGCGC
TTTGTTGGCTATAATCAGCAGGATGCTCAGGAGTTCCTTCGCTTTCTTCTGGATGGGCTCCATAACGAGG
TGAACCGAGTGACTGAGACCTAAGTCCAACCTGAGAACCTCGATCATCTTCTGATGACGAGAAAGG
CCGACAGATGTGGAGAAAATATCTAGAACGGGAAGACAGTAGGATCGGGGATCTCTTTGTTGGGCAGCTA
AAGAGCTCGTGACGTGTACAGATTGTGGTACTGTTCTACGGTCTTCGACCCCTTCTGGGACCTCTCAC
TGCCCATGCTAAGCGAGGTTATCCTGAGGTGACATTAATGGACTGCATGAGGCTCTTACCAAAGAGGA
TGTGCTTGATGGAGATGAAAAGCCAATGCTGTCGCTGCCGAGGCAGAAAACGGTGTATAAAGAAGTTC
TCCATCCAGAGGTTCCCAAAGATCTTGGTCTCCATCTGAAGCGTTCAGAAATCCAGGATCCGAACCA
GCAAGCTCACAACATTTGTGAACCTCCCCCTAAGAGACCTGGACTTAAGAGAATTTGCCTCAGAAAACAC
CAACCATGCTGTTTACAACCTGTACGCTGTGTCCAATCACTCCGGAACCCATGGGTGGCCACTATAACA
GCCTACTGTGCGAGTCCAGGGACAGGAGAAATGGCACACTTTCAACGACTCCAGCGTCACTCCCATGTCT
CCAGCCAAGTGCGCACCAGCGACGCTACCTGCTCTTCTACGAACTGGCCAGCCCGCCCTCCCGAATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC217695 representing NM_171997
Red=Cloning site Green=Tags(s)

MRTSYTVTLPEDPPAAPFPALAKELRPRSPLSPSLLLSTFVGLLLNKAKNSKSAQGLAGLRNLGNTCFMN
 SILQCLSNTRERLDYCLQRLYMRDLHHGSNAHTALVEEFAKLIQTIWTSSPNDVVPSEFKTIQRYAPR
 FVGYNQQAQEFRLRFLDGLHNEVNRVTLRPKSNPENLDHLPDDEKGRQMRKYLKEDSRIGDLFVGQL
 KSSLTCTDCGYCSTVDFPFDLSLPIAKRGYPEVTLMDCMRLFTEKEDVLDGDEKPTCCRCRGRKRCIKKF
 SIQRFPKILVHLKRFSESRIRTSKLTTFVNFPLRDLDLREFASENTNHAVYNLYAVSNHSGTTMGGHYT
 AYC RSPGTGEWHTFNDSSVTPMSSQVRTSDAYLLFYELASPPSRM

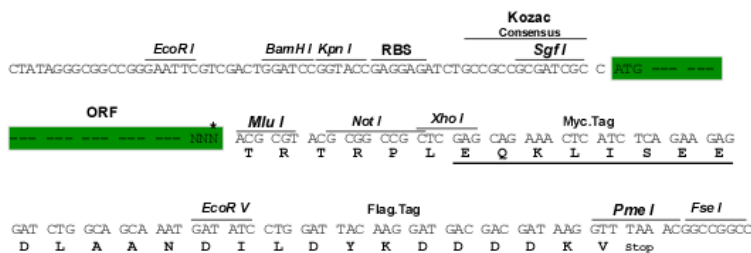
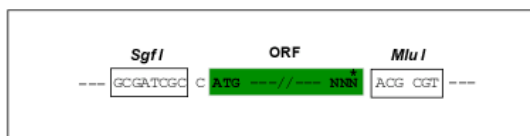
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6096_a05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_171997

ORF Size: 1188 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_171997.3](#)

RefSeq Size: 1378 bp

RefSeq ORF: 1191 bp

Locus ID: 9099

UniProt ID: [O75604](#)

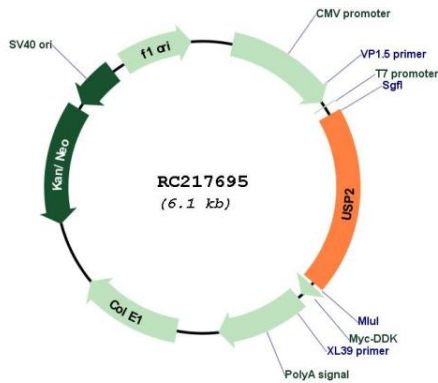
Cytogenetics: 11q23.3

Protein Families: Protease

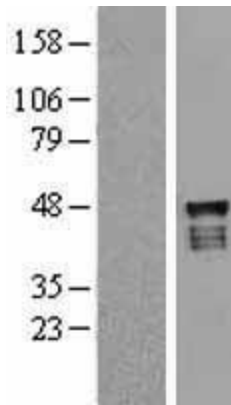
MW: 45.1 kDa

Gene Summary: This gene encodes a member of the family of de-ubiquitinating enzymes, which belongs to the peptidase C19 superfamily. The encoded protein is a ubiquitin-specific protease which is required for TNF-alpha (tumor necrosis factor alpha) -induced NF-kB (nuclear factor kB) signaling. This protein deubiquitinates polyubiquitinated target proteins such as fatty acid synthase, murine double minute 2 (MDM2), MDM4/MDMX and cyclin D1. MDM2 and MDM4 are negative regulators of the p53 tumor suppressor and cyclin D1 is required for cell cycle G1/S transition. Multiple alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Aug 2011]

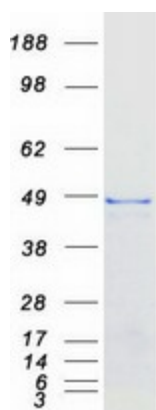
Product images:



Circular map for RC217695



Western blot validation of overexpression lysate (Cat# [LY403527]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217695 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified USP2 protein (Cat# [TP317695]). The protein was produced from HEK293T cells transfected with USP2 cDNA clone (Cat# RC217695) using MegaTran 2.0 (Cat# [TT210002]).