

Product datasheet for **MR210686**

Usp10 (NM_009462) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Usp10 (NM_009462) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Usp10
Synonyms:	2610014N07Rik; mKIAA0190; UBPO; Uchrp
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR210686 representing NM_009462
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCTCCACAACCCACAGTATATCTTTGGCGATTTCAGCCCTGATGAATTCAATCAGTTTTTTGTGA
 CTCCTCCGCTCTTCTGTTGAGCTCCCTCCATACAGTGGGACTCTGTGTAGCATACAGGCTGAAGATGAACT
 GCCAGATGCAGGACAGGAGCACCAGAGGATCGAGTTTGGTGTAGATGAAGTCATCGAACCTAGTGAGGGG
 CTGCCGCCAACTCCTAGCTACAGTATTTCAAGCACCTGAACCCCAAGGCACCCGAATTTATCCTTGGTT
 GTACGACTTCTAAAAAGATCCCTGAAGCCGTTGAAAAAGATGAGACCTACAGCTCCATTGACCAGTACCC
 CGCCTCGGCTTGGCTCTGAAAAGCAACTCTAACGCAGAGGCTGAGACCTGGAGAACGACAGTGGTGCC
 GGGCGCCTTGGTCAGAGGGAACGAAAAAGAAGAAGCGGCCCCCTGGGTTACTACAGTATTTTGAAG
 ATGGCGGTGAGGACAGTCTTCCCAGCCACCCTGGTCAACGGCCATGCCACCTCAGTGGGCACGAGCGG
 CGAGGCTGTGGAGACGCGGAGTTCATGGACGTGCTTCTCCAGTCATGCCAGGACTTGTGACAGCCCT
 CAGAATCCTGTGGACTTCATCAGTGGCCCTGTCCCTGACAGTCCGTTCCCAGGACACTAGGAGGCGATG
 CCAGGACTGCAGGGCTGTGTGAGGGCTGCCATGAAGCTGACTTTGAGCAGCCCTGCCTCCCTGCAGACAG
 CCTGCTAAGGACAGCTGGGACGCAGCCCTACGTTGGCACCATACTACTGAGAATTCGAGTTGCTAAT
 GGGAAAACTTTGAATCCCCGGGCGAGGACACTGCTGCCAACGGGGCAGAACTGCACACCGACGAGGGTG
 CAGACCTGGACCTGCGAAGCCGGAGAGCCAGTCACTCCTGCCGAAAGTGCCTCTCTGCCTCTGGCGC
 CATCCCCATTAGCCAGCTGCAAAGTCTGGGCTAGTCTTTTCATGATTCTAAGCCCTCTGCCTCCTCA
 CCCATGGCGTATGTGAAACTAAGTGTTCCTCCCTGTCCATCCCCCTGGCCTCTGAAAAACAGATGG
 AAGTCAAAGAAGGGCTTGTTCAGTGTGAGAGTCTGTAGCCATAAAGATTGCAGATTATTGGAGAC
 TGTAACCCCTAATACATAAGCCAGTGTATTGCAACCCCGTGGGCTGATCAATAAAGGAAACTGGTGCTAC
 ATTAATGCCACCCTGCAGGCATTGGTGGCTTGCCTCCGATGTATCACCTGATGAAGTTCATTCTCTGT
 ACTCAAAGTGCAGCGGCTTGCACATCAACGCCATGATAGATAGCTTTGTTCCGCTCATGAATGAGTT
 CACTAACATGCCAGTGCCTCCAAACCCCGCAAGCTCTCGGGGATAAAATCGTGAGAGATATCCGCCCA
 GGGGCTGCCTTTGAACCCACATACATACAGACTCCTGACAGTCATCAAGTCGAGCCTGTCTGAAAAGG
 GCCGGCAGGAGGACGCAGAGGATCTAGGTTTCATCTCAATGGACTCCATGAAGAGATGCTGAGCCT
 GAAGAAGTACTCTCACCCACGCAGAAAAACTCTGTTTCCAATGGGCCAGAAAGCGACTTGATAGAG
 GACGAGGAGCTGGAAGACACGGCAAGGGCAGCGAGGACGAGTGGGAGCAAGTGGTCCCAAGAATAAGA
 CGTCCATCACCCGGCAGGCGGACTTCGTCCAGACGCCATCACTGGCATTTCCTGGGGACACATCAGGTC
 TGTGGTCTACCAGCAGAGTTCAAAGAGTCAGCTACTCTGCAACTGTTTTTCACGCTGCAGTTGGACATC
 CAGTCTGACAAGATACGCACAGTCCAGGATGCGCTGGAGAGCTTGGTGGCCAGGGAGTCTGTCCAAGTT
 ACACCACCAAAACCAAGCAGGAGTTGAGGTGAGCCGAGAGTACTCTGGAGAAGCTGCCCCCTGTCT
 CGTGCTCCACCTGAAGCGCTTTGTCTATGAGAAGACAGGTGGATGCCAGAAGCTGGTCAAGAACATTGAC
 TACCCTGTGGACTTGAGATCAGCAGAGAACTACTTTCTCCAGGCATCAAAAATAAAATTTTAAATGCC
 AGAGAACCTATAGGCTGTTTGCAGTGGTCTACCACCATGGCAACAGCGCTACAGGCGCCACTACACTAC
 GGACGTCTCCAGATTGGGCTTAATGGCTGGCTACGAATCGATGACCAACGGTCAAGTTATTAACCCAG
 TACCAGGTGGTAAACCGCTGCCGACCGCACAGCCTACCTCCTATATTACCGCCCGTGGACCTGCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210686 representing NM_009462
Red=Cloning site Green=Tags(s)

MALHNPQYIFGDFSPDEFNQFFVTPRSSVELPPYSGTLCSTQAEDEL PDAGQEHQRIEFGVDEVIEPSEG
LPPTPSYSSSTLNPQAPEFILGCTTSKKIPEAVEKDETYSSIDQYPASALAESNSNAEAETLENDSGA
GGLGQRRERKKKKRPPGYSYLKDGGEDSASPATLVNGHATSVGTSGEAVEDAEFMDVLPVMPRTCDSP
QNPVDFISGPVPDSPFPRTLGGDARTAGLCEGCEADFEQPCLPADSLLRTAGTQPYVGTDTTENFAVAN
GKILESPGEDTAANGAELHTDEGADLDPKPESQSPPAESALSASGAIPISQPAKSWASLFHDSKPSASS
PMAYVETKCSPPVPSPLASEKQMEVKEGLVPVSEDPVAIKIAELLETVTLIHKPVSLQPRGLINKGNWCY
INATLQALVACPPMYHLMKFIPLYSKVQRPCTSTPMIDSFVRLMNEFTNMPVPPKPRQALGDKIVRDIRP
GAAFEPTYIYRLLTVIKSSLSEKGRQEDAEYLGFI LNGLHEEMLSLKLLSPTHEKHSVSNRPSDLIE
DEELEDTGKSEDEWEQVGPNKTSITRQADFVQTPITGIFGGHIRSVVYQQSSKESATLQLFFTLQLDI
QSDKIRTVDALVARESVQGYTTTKQVEVSRRTLEKLPVVLVHLKRFVYEKTGGCQKL VKNID
YPVDLEISRELLSPGIKKNFKCQRTYRLFVAVYHHGNSATGGHYTTDFVQIGLNGWLRIDDQTVKVINQ
YQVVKPPADRTAYLLYRRVDLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9040_b05.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


ACCN: NM_009462

ORF Size: 2379 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_009462.2](#)

RefSeq Size: 3236 bp

RefSeq ORF: 2382 bp

Locus ID: 22224

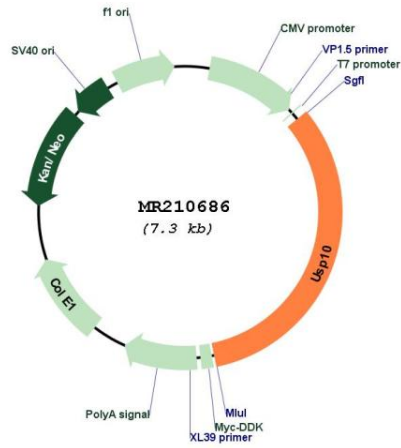
UniProt ID: [P52479](#)

Cytogenetics: 8 E1

MW: 87.5 kDa

Gene Summary: Hydrolase that can remove conjugated ubiquitin from target proteins such as p53/TP53, BECN1, SNX3 and CFTR. Acts as an essential regulator of p53/TP53 stability: in unstressed cells, specifically deubiquitinates p53/TP53 in the cytoplasm, leading to counteract MDM2 action and stabilize p53/TP53. Following DNA damage, translocates to the nucleus and deubiquitinates p53/TP53, leading to regulate the p53/TP53-dependent DNA damage response. Component of a regulatory loop that controls autophagy and p53/TP53 levels: mediates deubiquitination of BECN1, a key regulator of autophagy, leading to stabilize the PIK3C3/VPS34-containing complexes. In turn, PIK3C3/VPS34-containing complexes regulate USP10 stability, suggesting the existence of a regulatory system by which PIK3C3/VPS34-containing complexes regulate p53/TP53 protein levels via USP10 and USP13. Does not deubiquitinate MDM2. Deubiquitinates CFTR in early endosomes, enhancing its endocytic recycling. Involved in a TANK-dependent negative feedback response to attenuate NF-kappaB activation via deubiquitinating IKBKG or TRAF6 in response to interleukin-1-beta (IL1B) stimulation or upon DNA damage. Deubiquitinates TBX21 leading to its stabilization. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210686