

Product datasheet for **RN201548**

Usp10 (NM_001034146) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Usp10 (NM_001034146) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Usp10
Synonyms:	MGC124997
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN201548 representing NM_001034146
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCTCCACAACCCACAGTATATTTTTGGCGATTTCAGCCCTGATGAATTCAATCAGTTTTTTGTGA
 CTCCCGCTCTTTCAGTCGAGCTCCCTCCATACAGTGGGACTCAGTGTGGCATTACAGGCTGAAGAGGAACT
 TCTGGACGGACAAGAATCAGAGGATTGAGTTTGGTGTAGACGAAGTCATCGAACCCAGTGATGGTCTG
 CAGAGAGCCCCTAGCTACAGTATTTCAAGCACCTTGAACCCTCAGGCACCTGAATTTATCCTTGGTTGTC
 CAACTTCCAAGAAGACCCCTGATGACATAGAAAAAGACGAGACCTACAGCTCCATTGATCAGTACCCGGC
 CTCAGCCTTGGCTCTGGAAGCAGCTCTAACGCAGAGGCCGAGACCTGGAGAATGACAGTGGCGCTGGT
 GGTCTTGGTCAGAGGGAGCGGAAGAAGAAGAAGCGGCCCTGGGACTACAGTTATCTGAAAGATG
 GTAGTGAAGGGTGCTTCCCGGCCCTTGTCAACGGCCATGCCACGTCAGTGGGCACGAACAGCGA
 GGGTGTGGAGGATCCTGAGTTCATGGTGGACATGCTTCTTCAGTCATGCCAGGACTTGTGACAGCCCT
 CAGAACCCCATGGACTTAATCAGTGACCCTGTCCCTGATAGTCCCTTCCCGAGGACACTAGTGGTGATG
 CCAGGACTGCAGGACTGCCTGAGGGCTGCCGTGAAACTGACTTTGAGCAGCCCTGCCTCCCTACAGACAA
 CCTGCTAAGGACAGCTGTGACGCAGCCCAACGCTGGCGCCGACACTACTGAGAACCCTCGCAGTTGCTAAT
 GGAAAAATACTTGAATCCTTGGGCGAGGGCACTGCTGCTGCCAATGGGGTAGAGCTGCACACTGATGAGA
 GTGCAGACTTGGACCCTGCGAAGCCTGAGAGCCAGTCACTCCTGCCGAAAGTGCCTCTCTGTCTCTGG
 CGCCATTTCCATTAGCCAACCTGCAAAGTCTGGGCTAGCCTCTTTCATGATTCTAAGCCTTCTTCTCC
 TCACCCGTGGCGTATGTGAAACTAAGTGTCCCGCTGTCCCGTCCCGCTGGCCTTGAAAAACAGA
 TGAAGTCAAAGAAGGGCTTGTCCCGTGTGAGAGGCCCGTAGCCATAAAGATTGCAGAGTTATTGGA
 GACTGTAACCCTAGTACATAAGCCAGTGTATTGCAACCCCGTGGCTGATCAATAAAGGAACTGGTGC
 TACATTAATGCCACCCTGCAGGCATTGGTGGCTTCCCTCCGATGTATCACCTGATGAAGTTCATTCCTC
 TGTACTCAAAGTGCAAAGGCCGTGCACGTCCACGCCATGATAGATAGCTTTGTTGGGCTCATGAACGA
 GTTTACTAATATGCCAGTACCTCCAAACCCCGCAAGCTCTTGGGGATAAAATCGTGAGAGATATCCGC
 CCAGGAGCTGCCTTTGAACCCACATACATTTATCGACTCCTGACAGTCATCAAGTCGAGCCTGTCTGAAA
 AGGGCCGACAGGAGGACGCCGAGGAGTACCTAGGCTTTCCTCAATGGACTCCACGAGGAGATGCTGAG
 CCTGAAGAAGCTTCTCTACCCACGCACGAAAAGCACTCTGTTTCTAATGGGCCCGAAGCCACTTGATA
 GAGGATGAGGAGCTGGAAGACACAGGCGAGGGCAGTGAGGACAGTGGGAGCAAGTGGTCCCAAGAACA
 AGACGTCTGTACCCGGCAGGCGGATTTTCGTTACAGACCCCTATCACTGGCATTTCGGTGGACACATCAG
 GTCTGTGGTTTACCAGCAGAGTTCAAAAGAACTGCCACGCTGCAGCCATTTTTCACACTGCAGTTGGAC
 ATCCAGTCCGACAAGATTCGCACAGTCCAGGATGCCTTGAAAGCTTGGTGGCAAGAGAGTCTGTCCAGG
 GCTACACCACCAAGACCAAGCAGGAGGTTGAAGTCAGCCGTAGAGTGACTCTGGAGAAGCTTCCCGCTGT
 CCTTGTGCTCCACCTGAAGCGCTTCGTCTATGAGAAGACGGGCGGATGCCAGAAGCTCGTCAAGAATC
 GAGTACCCTGTGGACTTGGAGATCAGCAGAGAAGTCTTCTCCAGGCGTCAAAAATAAAAACTTTAAAT
 GCCACAGAACCTATAGGCTGTTTCGAGTGGTCTACCATCATGGCAACAGTGTACAGGTGGCCACTACAC
 CACGGACGTCTCCAGATTGGGCTTAACGGCTGGCTGCGAATTGATGACCAGACGGTCAAGGTTATCAAC
 CAGTACCAGTGGTGGAGCAAGTGTGACCGCACCGCCTACCTCCTGTATTACCGCCGTGTGGACCTGC
 TG**TAG**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_001034146
Insert Size: 2385 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).
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:	<ol style="list-style-type: none">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_001034146.1 , NP_001029318.1
RefSeq Size:	3287 bp
RefSeq ORF:	2385 bp
Locus ID:	307905
UniProt ID:	Q3KR59
Cytogenetics:	19q12
Gene Summary:	<p>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]</p>