

Product datasheet for **RC214303**

USP51 (NM_201286) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	USP51 (NM_201286) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	USP51
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214303 representing NM_201286
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCCAGGTTGAGAACTTCTTTGCCCTCCGGCTCTGGGTCGGCTGGATCTCCGGAGTGGGGGAG
 GAGCCTCTCCTGAGGAGCGGTTGAGAAGCGGGGAAAAATGGAGGAGCGCGCGGGGGCTACGAAGGC
 GTCTTCGAGACGTGAAGCCGAGGAGATGAAGCTGGAGCCATTACAAGAGCGTGAGCCCGCCGGAGGAG
 AACTTGACGTGGAGCAGCAGCGCGGACGAGAAGGTGCTCCCTTCAATCCCCCTTCGCTGTCACAGCA
 GCTCCTCGCCGTTTGCCCGCGCCGAAGCCCCGCCCTCGGCCAGCCCCGGGCCGCTCCCGCAGCCA
 GCCTGGGCTCTCGGCCACCCCCGCTCCAGCCCGCCCCGCCCGCCCGCCACCCCCGCCACCC
 GCACCGCGGCCAGGGCTGGCGTGGATCCCGGCGAGATCCCGGCTGGGTCCAGGCCTCAGACACGGA
 GAAGCTGCTCTGGTGACCTAGACGGGTCGGGGATCCTGGCGGCTTAGGGGACTGGTTGCTGGAGGTCGA
 GTTTGGTCAGGGTCCCACAGGCTGCTCTCATGTGGAGAGCTTTAAAGTAGGTAAGAAGTGCAGAGAAGC
 CTGAGGTTGATCTACCAGCGTTTCGTTGGAGTGGGACCCAGAGACTAGGAAACGTAAAGCAAAGTCAT
 GCATCTGTACGTATGTAGTACCATATGAACAGACTCCACTCTTGTCTCTCTGTGCTTTTTTGGCTG
 CTTCACTGAGAAACATATTCACAAACATGCAGAAACAAAGCAGCACCATTTAGCTGTAGACCTTTATCAT
 GGGGTCATATATTGCTTCATGTGTAAGGATTATGTATATGACAAAGACATAGAACAGATTGCCAAAGAAA
 CAAAAGAAAAATTTTGAGATTATTAACCTCCACCTCAACAGATGTTTCTCATCAACAGTTTATGACATC
 AGGGTTTGAAGACAAGCAATCAACCTGTGAGACAAAGGAACAGGAGCCAAAATGGTGAAACCAAGAAA
 AAGAGAAGAAAAAGTCAGTCTATACTGTAGGCCTGAGAGGGCTAATCAATCTTGGGAACACTTGTTTTA
 TGAATTGATTGTCCAGGCACTACCCATATTCCTCTACTGAAAGATTTCTCCTCTGACAAGCACAA
 ATGTATAATGACAAGCCCCAGCTTGTGTCTGGTCTGTGAAATGTCTTCGCTTTTTTCATGCTATGACTCT
 GGGAGCCGAACCTCCTCACATTCCCTATAAGTTACTGCATCTGATATGGATCCATGCAGAACATTTAGCAG
 GGTACAGGCAGCAGGATGCCCATGAGTTCCTTATTGCAATATTAGACGTGCTACATAGACACAGCAAAGA
 TGATAGTGGTGGGAGGAGGCAATAACCCCAACTGCTGTAAGTGCATCATAGACCAAATCTTTACAGGT
 GGCCTGCAATCAGATGTCACATGTCAAGCCTGCCATAGTGTCTACCACCATAGACCCATGCTGGGACA
 TCAGTTTGGACTTGCTGGCTCTTGTGCCACATTCGATTCAGAACCCAGAGAGGGCTGACAGCACAGT
 GAGCAGGGATGACCACATACCAGGAATCCCCTCACTTACAGACTGTCTACAGTGGTTTACAAGGCCAGAG
 CACCTAGGAAGCAGTGCCAAAATCAAATGCAATAGTTGCCAAAGTACCAGGAGTCTACTAACAGCTCA
 CAATGAAAAAATTACCCATTGTGGCTTGTTCATCTCAAGCGGTTTGAGCATGTAGGCAAACAGAGGCG
 AAAGATTAATACCTTTATCTCCTTTCCCTTGGAGCTGGACATGACTCCGTTTTTGGCCTCTACTAAAGAG
 AGCAGAAATGAAAGAAGGCCAGCCACCAACAGATTGTGTGCCCAATGAGAAATAAGTATTCCTGTTTGCAG
 TGATTAATCACCATGGAACCTTTGGAAAGTGCCACTATACCAGCTTATCCGGCAACAAAAGGACCAGTG
 GTTCAGCTGTGATGATGCCATCATCACCAAGGCTACCATTGAGGACTTACTCTACAGTGAAGGGTATTTA
 CTGTTCTATCACAAACAGGGTCTAGAGAAAGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214303 representing NM_201286
 Red=Cloning site Green=Tags(s)

MAQVRETSLPSGSGVRWISGGGGGASPEEAVEKAGKMEEAAAGATKASSRREAEMKLEPLQEREPAPEE
 NLTWSSSGDEKVLPSIPLRCHSSSSPVCPRRKPRPRPQPRARSRSQPGLSAPPPPPARPPPPPPPPPP
 APRPRAWRGSRRRSRPGSRPQTRRSCSGDL DSGSDPGGLDWLLEVEFGQGPTGCSHVESFKVGNWQKN
 LRLIYQRFVWSGTPETRRKAKSCICHVCSTHMNRLHSLSCVFFGCFTEKHIHKHAETKQHHLAVDL YH
 GVIYCFMCKDYVYDKDIEQIAKETKEKILRLLTSTDVSHQQFMTSGFEDKQSTCETKEQEPKLVKPKK
 KRRKKSYYTVGLRGLINLGNTCFMNCIVQALTHIPLLKDFFLSDKHKCINTSPSLCLVCEMSSLFHAMYS
 GSRTPHIPYKLLHLIWIHAEHLAGYRQQAHEFLIAILDVLRHSKDDSGGQEANNPNCNCIIDQIFTG
 GLQSDVTCQACHSVSTTIDPCWDISLDLPGSCATFDSQNPERADSTVSRDDHIPGIPSLTDCLQWFTRPE
 HLGSSAKIKCNSCQSYQESTKQLTMKKLPVACFHLKRFEHVKGQRKINTFISFPLEDMTPFLASTKE
 SRMKEGQPPTDCVPNENKYSLFAVINHHGTLESGHYTSFIRQQKQWFSCDDAIIITKATIEDLLYSEG YL
 LFYHKQGLEKD

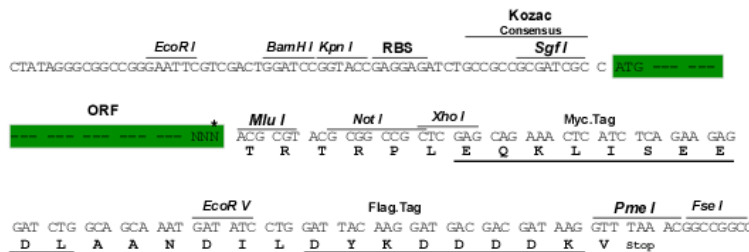
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8030_f09.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_201286

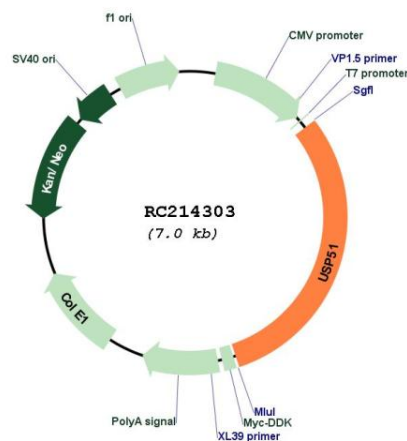
ORF Size: 2133 bp

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](#)

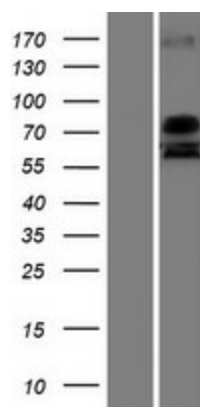
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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_201286.3
RefSeq Size:	2490 bp
RefSeq ORF:	2136 bp
Locus ID:	158880
UniProt ID:	Q70EK9
Cytogenetics:	Xp11.21
Protein Families:	Druggable Genome, Protease
MW:	79.6 kDa
Gene Summary:	Specifically deubiquitinates 'Lys-14' (H2AK13Ub) and 'Lys-16'(H2AK15Ub) of histone H2A regulating the DNA damage response at double-strand breaks (DSBs) (PubMed:27083998). USP51 is recruited to chromatin after DNA damage and regulates the dynamic assembly/disassembly of TP53BP1 and BRCA1. Exhibits also activity for 'Lys-27' or 'Lys-63'-linked di-ubiquitin (PubMed:27083998).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC214303



Western blot validation of overexpression lysate (Cat# [LY404517]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214303 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).