

Product datasheet for **RG214303**

USP51 (NM_201286) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	USP51
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



ORF Nucleotide Sequence: >RG214303 representing NM_201286
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGCCCGAGGTTTCGAGAACTTCTTTGCCCTCCGGCTCTGGGTCGCTGGATCTCCGAGGTGGGGAG
 GAGCCTCTCCTGAGGAGGCGGTTGAGAAGGCGGGGAAAATGGAGGAGGCGGCGGGGGCTACGAAGGC
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 AACTTGACGTGGAGCAGCAGCGGCGGCGAGAGAAGGTGCTCCCTTCAATCCCCCTTCGCTGTACAGCA
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 GGCTGGGCTCTCGGCCCAACCCCGCTCCAGCCCGGCCCGCCCGCCCGCCAGCCCGCCCGCCAGCC
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 AGCAGAATGAAAGAAGGCCAGCCACCAACAGATTGTGTGCCAATGAGAATAAGTATTCCTTGTTTGCGAG
 TGATTAATCACCATGGAACCTTGGAAAGTGGCCACTATACCAGTTCATCCGGCAACAAAAGGACCAGTG
 GTTCAGCTGTGATGATGCCATCATACCAAGGCTACCATTGAGGACTTACTCTACAGTGAAGGATTTTA
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

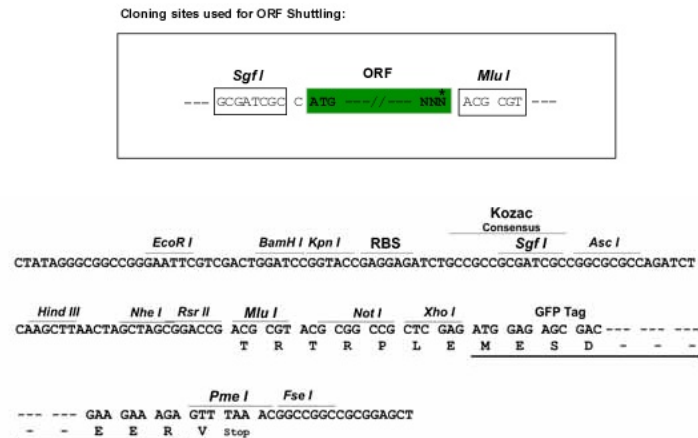
Protein Sequence: >RG214303 representing NM_201286
 Red=Cloning site Green=Tags(s)

MAQVRETSLPSSGVRWISGGGGGASPEEAVEKAGKMEEAAGATKASSRREAEEMKLEPLQEREPAPEE
 NLTWSSSGGDEKVLPSIPLRCHSSSSPVCPRRKPRPRPQPRARSRSQPLSAPPPPPARPPPPPPPPPP
 APRPRAWRGSRRRSRPGSRPQTRRSCSGDLDGSGDPGGLGDWLLVEFQGPTGCSHVESFKVGNWQKN
 LRLIYQRFVWSGTPETRRKRAKSCICHVSTHMLHSLSCVFFGCFTEKHIHKAETKQHHLAVDLYH
 GVIYCFMCKDYVDKDIEQIAKETKEKILRLLTSTSTDVSHQQFMTSGFEDKQSTCETKEQEPKLVKPKK
 KRRKKSYYTVGLRGLINLGNCFMNCIVQALTHIPLKDFFLSDKHKCIIMTSPSLCLVCEMSSLFHAMYS
 GSRTPHIPYKLLHLIWIHAELHAGYRQQAHEFLIAILDVLHRSKDDSGGQEAANNPNCNCIIDIQIFTG
 GLQSDVTCQACHSVSTTIDPCWDISLDLPGSCATFDSQNPADSTVSRDDHIPGIPSLTDCLQWFTRPE
 HLGSSAKIKCNSCQSYQESTKQLTMKKLPVACFHLKRFHVKGQRRKINTFISFPLELDMTPFLASTKE
 SRMKEGQPPTDCVPNENKYSLFAVINHHGTLES GHYTSFIRQKQDQWFSRDDAIITKATIEDLLYSEGYL
 LFFHKQGLEKD

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:

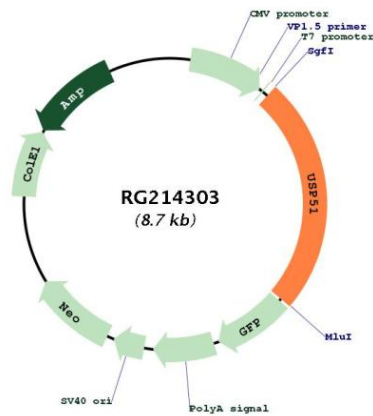
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_201286.3](#)

RefSeq Size:	2490 bp
RefSeq ORF:	2136 bp
Locus ID:	158880
UniProt ID:	Q70EK9
Cytogenetics:	Xp11.21
Protein Families:	Druggable Genome, Protease
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 RG214303