

Product datasheet for **RC223407**

USP37 (NM_020935) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	USP37 (NM_020935) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	USP37
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC223407 representing NM_020935
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCTCCTCTGAAGATACATGGTCTATCAGAATTCGAAGTATGCAGACTGGGATTACAAAGTGGAAAG
 AAGGATCCTTTGAAATTGTAGAAAAAGAGAATAAAGTCAGCCTAGTAGTTCACTACAATACTGGAGGAAT
 TCCAAGGATATTTTCAGCTAAGTCATAACATTAATAATGTGGTGCTTCGACCCAGTGGAGCGAAACAAGC
 CGCCTAATGTTAACTCTGCAAGATAACAGCTTCTTGCTATTGACAAAGTACCAAGTAAGGATGCAGAGG
 AAATGAGGTTGTTCTAGATGCAGTCCATCAAACAGACTTCTGCAGCCATGAAACCGTCTCAGGGGTC
 TGGTAGTTTTGGAGCCATTCTGGGCAGCAGGACCTCACAGAAGGAAACCAGCAGGCGACTTTCTTACTCA
 GACAATCAGGCTTCTGCAAAAAGAGGAAGTTGGAACTAAAGATGATATTCATTTGAAAAGTTCTTG
 GTAATCCGGGTAGAGGATCGATTAAGACTGTAGCAGGAAGTGAATAGCTCGGACGATTCCTTCTTTGAC
 ATCTACTTCAACACCTCTTAGATCAGGGTTGCTAGAAAATCGTACTGAAAAGAGGAAAAGATGATATCA
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 GACATCAGGGCTTTTACCTTTACAGTCATCATCTTTTATGGTAGCAGAGCTGGATCCAAGGAACACTCT
 TCTGGTGGCACTAACTTAGACAGGACTAATGTTTCAAGCCAGACTCCCTCTGCCAAAAGAAGTTGGGAT
 TTCTTCTCAGCCAGTTCCTCTTTCTGTTAAAAAACTGAGGTGTAACCAGGATTACACTGGCTGGAATAA
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 TACCAGAGCATACACTTGCCCTGTTATTACTAATTTGGAGTTTGGAGTTCAGCACTCCATCATTTGTAAA
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 AACCACTCCCTCCTCGTTCAATTAAGATTCTCTTGATCTTTTCTTTAGGGCCGAAGAACTGGAGTATTC
 TTGTGAGAAGTGTGGTGGGAAGTGTCTTGTGCAGGCACAAATTAACAGGCTTCTAGGGTCTCATT
 CTCCATTTGAAACGATATAGCTTCAATGTGGCTCTCTCGTTAACATAAGATTGGGCAGCAAGTCATCA
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 TGCACATATGGCAATTTCTAGACCATTGAAAGCCTCTCAATGGTGAATTCCTGCATCACCAGCCCTTCT
 ACACCTTCAAAGAAATTCACCTTCAATCCAAGAGCTCCTTGGCTTTATGCCTTGATTGAGACAGTGAGG
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 GACAGAATGAGCGAAGAAGAGCTTCTAGCAGCTGTCTTGGAGATAAGTAAGAGAGATGCTTACCATCTC
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 AATGCCAGAAAATCCAGACACTATGAAAAGTGAAGCCAAAACAATCACAGAGCTGGATCCTGCCAGT
 TTTACTGAGATAACTAAAGACTGTGATGAGAATAAAGAAAACAAAACCTCCAGAAGGATCTCAGGGAGAAG
 TTGATTGGCTCCAGCAGTATGATATGGAGCGTGAAGGGAAGAGCAAGAGCTTACGACAGGCACTGGCTCA
 GAGCCTTCAAGAGCAAGAGGCTTGGGAACAGAAAGAGATGATGACCTCAAAAGAGCTACCGAGTTAAGT
 CTTCAAGAGTTTAAACACTCCTTTGTGGATGCATTGGGTCTGATGAGGACTCTGGAAATGAGGATGTTT
 TTGATATGGAGTACACAGAAGCTGAAGCTGAGGAACTGAAAAGAAATGCTGAGACAGGAAATCTGCCTCA
 TTCGTACCGGCTCATCAGTGTGTCAGTCACATTGGTAGCACTTCTTCTCAGGTCATTACATTAGTGAT
 GTATATGACATTAAGAAGCAAGCGTGGTTTACTTACAATGACCTGGAGGTATCAAAAATCCAAGAGGCTG
 CCGTGCAGAGTATCGAGATCGGAGTGGCTACATCTTCTTTATATGCACAAGGAGATCTTTGATGAGCT
 GCTGGAACAGAAAAGAACTCTCAGTCACTTAGCACGGAAGTGGGAAGACTACCGTCAAGGCTCG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC223407 representing NM_020935
 Red=Cloning site Green=Tags(s)

MSPLKIHGPIRIRSMQTGITKWKEGSFEIVEKENKVSLVVHYNTGGIPRIFQLSHNIKNVLRPSGAKQS
 RLMLTLQDNSFLSIDKVPKDAEEMRLFLDAVHQNRLPAAMKPSQGSFSGAILGSRTSQKETSRLSYS
 DNQASAKRGSLETKDDIPFRKVLGNPGRGSIKTVAGSGIARTIPSLTSTSTPLRSGLLNRTKRRMIS
 TGSELNEDYPKENDSSNNKAMTDPKRYLTSREKQLSLKQSEENRTSGLLPLQSSSFYGSRAGSKEHS
 SGGTNLDRTNVSSQTPSAKRSLGFLPQPVPVLSVKKLRNQNQDYTGWNKPRVPLSSHQQQLQGFNLGNTC
 YMNAIQSLFSLQSFANDLLKQGIKWIPLNALLIRRFHLLVKKDLCNSETKKDLLKVKNAISATAER
 FSGYMQNDAHEFLSQCLDQLKEDMEKLNKTKWTEPVSGEENSPDISATRAYTCPVITNLEFEVQHSIICK
 ACGEIIPKREQFNDLSIDLPRKKPLPPRSIQDSLDFFRAELEYSCEKCGKCALVRHKFNRLPRVLI
 LHLKRYSFNVALSLNNIGQQVIIPRYLTLSSHCTENTKPPFTLGWSAHMAISRPLKASQMVNSCITSPS
 TPSKFFTFKSKSSLALCLDSDSEDELKRSVALSQRLCEMLGNEQQQEDLEKSKLCPTEPKSELENSGF
 DRMSEEEELLAAVLEISKRDASPSLSHEDDKPTSSPDTGFAEDDIQEMPENPDTMETPKTITELDPAS
 FTEITKDCDENKENTPEGSQGEVDWLQYDMEREREEQELQALAQSLQEAEWEQKEDDDLKRATELS
 LQEFNNSFVDALGSDSDGNEDVDFMEYTEAEAEELKRNAETGNLPHSYRLISVSHIGSTSSSGHYISD
 VYDIKKQAWFTYNDLEVSKIQAQAVQSDRDRSGYIFFYMHKEIFDELLETEKNSQSLSTEVGKTRQAS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6203_d11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



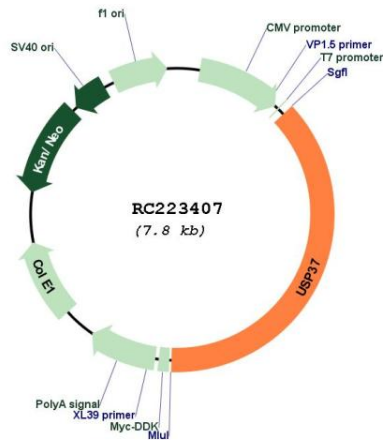
* The last codon before the Stop codon of the ORF

ACCN: NM_020935

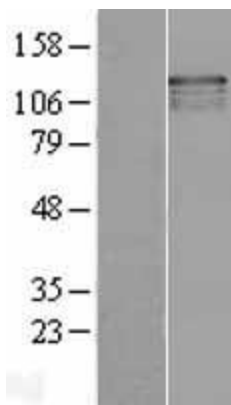
ORF Size: 2937 bp

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_020935.2
RefSeq Size:	8015 bp
RefSeq ORF:	2940 bp
Locus ID:	57695
UniProt ID:	Q86T82
Cytogenetics:	2q35
Protein Families:	Protease
MW:	110 kDa
Gene Summary:	<p>Deubiquitinase that antagonizes the anaphase-promoting complex (APC/C) during G1/S transition by mediating deubiquitination of cyclin-A (CCNA1 and CCNA2), thereby promoting S phase entry. Specifically mediates deubiquitination of 'Lys-11'-linked polyubiquitin chains, a specific ubiquitin-linkage type mediated by the APC/C complex. Also mediates deubiquitination of 'Lys-48'-linked polyubiquitin chains in vitro. Phosphorylation at Ser-628 during G1/S phase maximizes the deubiquitinase activity, leading to prevent degradation of cyclin-A (CCNA1 and CCNA2) (PubMed:21596315). Plays an important role in the regulation of DNA replication by stabilizing the licensing factor CDT1 (PubMed:27296872). [UniProtKB/Swiss-Prot Function]</p>

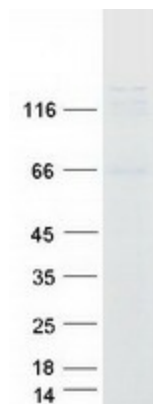
Product images:



Circular map for RC223407



Western blot validation of overexpression lysate (Cat# [LY402812]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223407 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified USP37 protein (Cat# [TP323407]). The protein was produced from HEK293T cells transfected with USP37 cDNA clone (Cat# RC223407) using MegaTran 2.0 (Cat# [TT210002]).