

Product datasheet for **RR200137**

Usp4 (NM_001106093) Rat Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Usp4 (NM_001106093) Rat Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Usp4 |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |



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ORF Nucleotide Sequence:

>RR200137 representing NM_001106093
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGGAAGGCCGGGGACCCATGAGCGACCGGATGTGGAGACCCAGAAGACGGAGCTCGGAGCCTTGA
 TGGGGACCACGCTCCAGCGTGGGCTCAGTGGTATCTGATCGACAGCCGGTGGTTCAAGCAGTGGAAAGAA
 GTACGTCGGCTTTGACAGCTGGGACATGTACAACGTGGGGGAGCACAATCTCTTTCTGGACCGATTGAC
 AACTCTGGGCTCTTCTCAGATCCTGAGAGTCAGACCTGAAGGAACACTTAATCGATGAGCTGGACTATG
 TGTTGGTTCCAACGAAGCCTGGAATAAATTGCTAAATTGGTATGGCTGTGTGGAAGGCCAGCAGCCTAT
 TGTCAGAAAAGTTGTGGAGCATGGCCTGTTTGTCAAGCACTGCAAAGTGGAAAGTGTATTTGCTGGAGTTG
 AAGCTCTGTGAGAACAGTGACCCACCAATGTGCTAAGTTGCCATTTTAGCAAAGCAGATACCATTGCAA
 CTATTGAGAAGGAGATGAGGAAGCTCTCAACATCCCTGCAGAGCGTAAAACACGACTTTGGAACAATA
 CATGAGCAACACCTATGAGCAGTTGAGCAAGCTAGACAACACTATCCAGGATGCTGGGCTGTACCAGGGT
 CAGGTGCTAGTAATTGAGCCCCAAAATGAAGACGGCACATGGCCAGGCAGACCTGCAATCAAATGGAG
 CTGGCTTCTCTGCCTCGTATAATTGCCAGGAGCCCCATCACCTCATATCCAGCCTGGCCTCTGTGGACT
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 CAGAGAAAAGAAGTCCAGGCCATCGAGTACTTCTCTGGGGCCGTGCTCTATGGACAGCCACTTCTGTGT
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 TAGCTATGAAGGAGATGAAGAAGAAATGGATCATCAAGAGGAAGGGAAAGAACAGCTTTCTGAAAGTGAA
 GAAAGTGGTGAGGACAGTCAGGGAGGGGACCCTACTGAGACCACCCAAAAGGCGAAAGGCCCGCCCGCC
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 TACTTTGATGAGCAAGAATCTGAGGCCTGTGAGAAGCACACGAGCATGTCCAGCCTCAGAAGAAGAAGA
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 CCTGATTGCTGTGTTCCAATCACTATGGCGCTATGGGGGTCGGTCACTATACTGCATATGCGAAGAACAGA
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 CCCGGTTCTGATGGAGGGGCGAAGCTCAGCAGCTCACAGCAGGACTTGGGGGAAGAGGAGGCTTACACC
 ATGGACACCAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

Protein Sequence: >RR200137 representing NM_001106093
 Red=Cloning site Green=Tags(s)

MAEGRGTPDPVETQKTEL GALMGTTLQRGAQWYLIDSRWFKQWKYVGFDSWDMYVNGEHNLFPGPID
 NSGLFSDPESQTLKEHLIDELDYVLVPTAEWNKLLNWCVEGQQPIVRKVVEHGLFVKHCKVEVYLLEL
 KLCENS DPTNVL SCHFSKADTIATIEKEMRKL FNIPAE RETRLWNKYMSNTYEQLSKLDNTIQDAGLYQG
 QVLVIEPQNE DGTWPRQTLQSNAGF SASYNCEPPSPHIQPGLCGLGNLNTCFMNSALQCL SNTGPLT
 EYFLKDEYEA EINRDNPLGMKGEIAEAYAE LKQMWSGRDTHVAPRMFKTQVGRFAPQFSGYQQDSQEL
 LAFILDGLHEDLNRVKKKPYLEPKDANGRPDAVVAKEAWENHRLRNDSVIVDTFHGLFKSTLVCP ECAKV
 SVTFDPFCYLTLP LPLKDRIMEVFLVPADPHCRPIQYRVTVPLMGAISDLCEALSKLSGIAAENMVVTD
 VYNHRFHKIFQMDEGLSHITPRDDIFVYEICTTPMDGSEYITLPVYFREKKS RPSSTSSGAVLYGQPLL
 SVPKHRLTLESLYQAVCERISRYIKQPLPEEFLSSPLEPGACNGSRGSEYEGDEEEMDHQEEGKEQLSEV
 ESGEDSQGGDPTETTQKAKGPPRHKRLFTFSLVNSCGTADINSLATDGKLLKLSRSTLAIDWSETRSL
 YFDEQESEACEKHTSMSQPQKKKAAIALRECIELFTTMTLGEHDPWYCPTCKKHQATKKFDLWLPK
 ILVVHLKRF SYNRYWRKLDTVVEFPVRALNMSEFVCDRAARPYVDLIAVSNHYGAMGVGHYTA YAKNR
 LNKWYFYFDDSSVSLASEDQIVTKAAYVLFYQRRDDECPSTSSPVSPGSDGGAKLSSSQDLGEEEA YT
 MDTN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

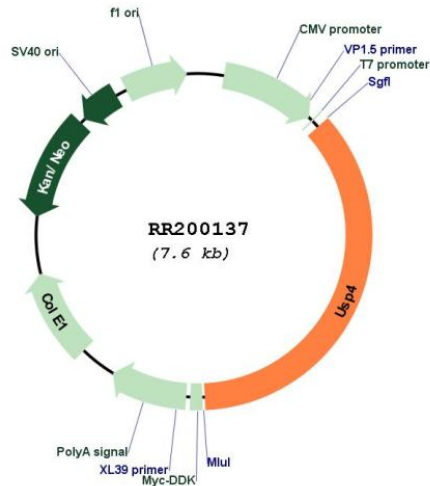
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001106093

ORF Size: 2742 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_001106093.2](#), [NP_001099563.1](#)

RefSeq Size: 3955 bp

RefSeq ORF: 2745 bp

Locus ID: 290864

Cytogenetics: 8q32

MW: 103.7 kDa

Gene Summary:

Deubiquitinating enzyme that removes conjugated ubiquitin from target proteins. Deubiquitinates PDPK1. Deubiquitinates TRIM21. Deubiquitinates receptor ADORA2A which increases the amount of functional receptor at the cell surface. May regulate mRNA splicing through deubiquitination of the U4 spliceosomal protein PRPF3. This may prevent its recognition by the U5 component PRPF8 thereby destabilizing interactions within the U4/U6.U5 snRNP. May also play a role in the regulation of quality control in the ER. [UniProtKB/Swiss-Prot Function]