

Product datasheet for **RR200138**

Usp4 (NM_001135012) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Usp4 (NM_001135012) 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:

>RR200138 representing NM_001135012
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGAAGGCCGGGGACCCATGAGCGACCGGATGTGGAGACCCAGAAGACGGAGCTCGGAGCCTTGA
 TGGGGACCACGCTCCAGCGTGGGCTCAGTGGTATCTGATCGACACCGGTGGTTCAAGCAGTGGAAAGAA
 GTACGTCGGCTTTGACAGCTGGGACATGTACAACGTGGGGGAGCACAATCTCTTTCTGGACCGATTGAC
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 GCTGGCTTCTCTGCCTCGTATAATTGCCAGGAGCCCCATCACCTCATATCCAGCCTGGCCTCTGTGGAC
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR200138 representing NM_001135012
 Red=Cloning site Green=Tags(s)

MAEGRGTPDPVETQKTELGALMGTTLQRGAQWYLIDSRWFQWKYVGFDSWDMYVNGEHNLFPGPID
 NSGLFSDPESQTLKEHLIDELDYVLVPTAEWNKLLNHYGCVGQQPIVRKVVEHGLFVKHCKVEVYLLLEL
 KLCENSPTNVLSCHFSAKADTIATIEKEMRKLFNIPAEERTRLNKYSNTYEQLSKLDNTIQDAGLYQG
 QVLVIEPQNEGTWPRQTLQSKSSTAPSRNFTTSSKPSASPYSSMSASLIANGDSTNSSGMHNSGVSRGG
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 VFLVPADPHCRPIQYRVTVPLMGAISDLCEALSKLSGIAAENMVVTDVYNHRFHKIFQMDEGLSHITPRD
 DIFVYEICTTPMDGSEYITLPPVYFREKKSRSSTSSGAVLYGQPLLVSVPKHRLTLESLYQAVCERISRY
 IKQPLPEEFLSSPLEPGACNGSRGSYEGDEEEMDHQEEGKEQLSEVEESGEDSQGGDPTETTQKAKGPPR
 HKRLFTFSLVNSCGTADINSLATDGKLLKLSRSTLAIDWSETRSLYFDEQESEACEKHTSMSQPQKKK
 KAAIALRECIELFTTMTLGEHDPWYCPTCKKHQQATKKFDLWSPKILVVHLKRF SYNRYWRDKLDTVV
 EFPVRALNMSEFVCDRAARPYVYDLIAVSNHYGAMGVGHYTAYAKNRLNGKWWYFDSSVSLASEDQIVT
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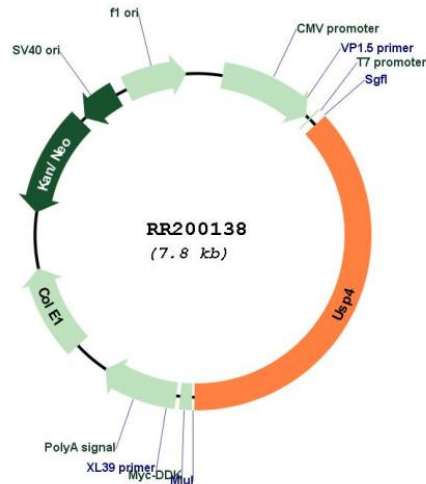
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001135012

ORF Size: 2883 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_001135012.1](#), [NP_001128484.1](#)

RefSeq Size: 4096 bp

RefSeq ORF: 2886 bp

Locus ID: 290864

UniProt ID: [B2GUZ1](#)

Cytogenetics: 8q32

MW: 108.4 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]