

Product datasheet for **MR221203**

Usp13 (NM_001013024) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Usp13 (NM_001013024) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Usp13
Synonyms:	2700071E21Rik; AI848077; IsoT-3; ISOT3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR221203 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAGCGCCGGGCGCCCTGTTCAGCGTGCCGGGCGGCGGGGAAGATGGCTGCAGGGGACCTGGGCG
 AGCTGCTGGTGCCTCATATGCCACGATCCGCGTGCCAGGTCGGGGACCGCGTCTACAAGAACGAGTG
 CGCCTTCTCTACGACTCCCCGAACCTGAAGGTGGGCTCTACGTATGCATGAATACCTTTTTGGCCTTT
 GGAAGGGAACACGTAGAAAGACTTTTCAAAAACTGGACAGAGCGTATACATGCACCTGAAGAGGCACA
 TGCGAGAGAAGGTAAGAGGAGCCTCTGGTGGAGCTTTACCCAAAAGGAGGAATCCAAGATATTTTTAGA
 TCTAGATATGGATGACGATTTAAATAGTGACGATTACGAATATGAAGACGAAGCCAACTTGTTATATTC
 CCAGACCACTATGAAATAGCCCTTCTAACATTGAGGAGTTACCAGCCCTGGTAACAATTGCTTGTGATG
 CAGTGCTCAGCTCAAAGTCCCCTTACAGGAAGCAGGATCCAGACACATGGGAAAACGAAGTGCCAGTATC
 GAAGTATGCCAACACCTTGTGCAACTGGACAACGGGGTCAAGATTCTCCAGTGGCTGGAAGTGTGCC
 CGATGTGACCTGCGGGGAGAACCTCTGGTGAATCTGACTGACGGCTCTGTCTGTGTGGGAAGTGGTTTT
 TTGACAGCTCAGGGGGCAACGGCCACGCACTGGAGCATTACAGGGACATGGGCTATCCTCTGGCCGTGAA
 GCTGGGACCATCACACCTGATGGGGCAGATGTTTATTCTTTCAAGAAGAGGGGCTGTTTCGGATCCT
 CATTGGCCAAACACTTAGCACATTTTGGGATCGACATGCTCCACACGCAAGGGACAGAGAACCGTCTCC
 GGGACAATGACATCAAACCGAGAGTCAGCGAGTGGGAAGTGATCCAGGAGTCAGGAACCTAAGCTGAAGCC
 GATGTACGGCCAGGGTACACGGGCTGAAGAACCTGGCAACAGTTGCTACCTCAGTTCTGTATGCAG
 GCCATTTACAGCATCCCAGAGTTCCAGAGAGCGTATGTAGGAAACCTCCAAGGATATTTGACTACTCAC
 CGTTAGATCCAACGCAGGACTTCAACACACAATGACTAAGTTGGGACATGGCCTCCTCTCTGGCCAGTA
 CTGGAAGCCTCCAGTGAATCTGAGCTCATTGAACAGGTGATGAAGGAGGAGCACAAAGCCTCAGCAGAAT
 GGGATCTCTCCACGCATGTTCAAGGCCTTTGTGACGAAGGCCACCCGGAATTCTCTCCACAGACAGC
 AGGATGCCAGGAGTTTTTCTTGCAATTTGGTCAATCTGGTAGAGAGGAATCGCATTGGCTCAGAAAACCC
 AAGTGATGTTTTCCGGTTTTTGGTGGAGGAGCGAATTCAATGCTGTGACACCAGAAAGGTTCCGTACACG
 GAGAGGGTGGACTACCTAATGCAGTTACCTGTGGCCATGGAGGCAGCAACCAACAAAGATGAGCTGATCA
 CCTATGAACTCATGCGGAGGGAAGCAGAAGCCAACAGAAGACCCCTACCTGAGCTGGTGCAGCCAAGAT
 CCCATTAGTGCCTGCCTCAGGCCTTTGCTGAACCAGACAATGTGGATGATTTCTGGAGCAGTGCCTCTG
 CAGGCCAAGTCTGCAGGGGTCAAACCTTCTCGCTTTGCCTCATTCCCTGAATACTTGGTAGTGCAGATAA
 AGAAGTTCACCTTTGGTCTTGACTGGGTTCCCAGAAAATTTGATGTTTCTATTGATATGCCAGACCTACT
 AGATATACGCCATCTCAGAGCCAGGGGCTTGCAGCCAGGGGAAGAGGAGCTTCTGACATCAGCCCCCCC
 ATAGTCATTCTGATGACTCAAAGACCGCTTGATGAACCAAGTTGATAGACCCCTCAGACATTGATGAGT
 CTTCCGGTATGCAGCTGGCTGAGATGGGCTTCCCTTTGGAAGCCTGCAGGAAGGCTGTGTACTTCACGGG
 GAACACCGGAGCTGAGGTGGCCTTCAACTGGATTATCGTGACATGGAGGAGCCTGACTTTGCTGAACCA
 CTGGCCATACCTGGGTATGGAGGGGCTGGGGCCTCTGTCTTTGGTGTACTGGATTGGACAACCAACCTC
 CTGAGGAAATCGTAGCTATTATCACCTCGATGGGATCCAGCGAAATCAGGCAGTGCAGGCTCTACAAGC
 AACGAATCATAACCTGGAAAGAGCACTGGACTGGATCTTCAGCCACCCGAGTTTGAAGAGGACAGTGCAG
 TTTGTGATCGAGATGGAGAACAATGCAAAATGCCAACATCGTGTCTGAGGCCAAGCCAGAGGGACCCAGAG
 TGAAGGATGGGTCTGGAATGTACAGATTGTTTGTCTTTCATCAGTACATGGGAACATCTACAATGAGTGG
 CCATTATGTTTGCATATCAAGAAAGAGGGACGATGGGTGATCTACAATGACCACAAAGTTTGTGCCTCA
 GAAAGGCCCCCAAGACCTGGGCTATATGTACTTTTACCGCAGGATACCAAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR221203 protein sequence
 Red=Cloning site Green=Tags(s)

MQRRGALFSVPGGGGKMAAGDLGELLVPHMPTIRVPRSGDRVYKNECAFSDSPNSEGGLYVCMNTFLAF
 GREHVERHFRKTGQSVYMHKLRHMREKVRGASGGALPKRRNSKIFLDLMDDDLNSDDYEYEDAEKLVIF
 PDHYEIALPNIEELPALVTIACDAVLSSKSPYRKQDPDTWENEVPSKYANNLVQLDNGVRIPPSGWKCA
 RCDLRENLWNLTDGSVLCGKWFDFSSGGNGHALEHYRDMGYPLAVKLGITPDGADVYSFQEEGVPVSDP
 HLAKHLAHFGIDMLHTQGTENGLRDNDIKPRVSEWEVIQESGTLKPMYGPYGTGLKNLGNSCYLSSVMQ
 AIFSIPEFQRAYVGNLPRIFDYSPLDPTQDFNTQMTKLGHGLLSGQYSKPPVKSELIEQVMKEEHKQQN
 GISPRMFKAFVSKSHPEFSSNRQQDAQEFFHLVNLVERNRISENPSDVFRFLVEERIQCQTRKYRYT
 ERVDYLMQLPVAMEAATNKDELI TYELMRREAEANRRPLPELVRAKIPFSACLQAF AEPDNVDDFWSSAL
 QAKSAGVKT SRFASFPEYL VVQIKKFTFGLDWVPRKFDV SIDMPDLLDISHLRARGLQPGEELPDISPP
 IVIPDDSKDRMLNQLIDPSDIDESVSQLAEMGFLEACRKAVYFTGNTGAEVAFNWIIVHMEEPDFAEP
 LAIPGYGGAGASVFGATGLDNQPPEEIVAITITSMGFQRNQAVQALQATNHNLERALDWIFSHPEFEEDSD
 FVIEMENNANANIVSEAKPEGPRVKDGGSGMYELFAFISHMGTSTMSGHYVCHIKKEGRWVIYNDHKVCAS
 ERPPKDLGYMYFYRRIPS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

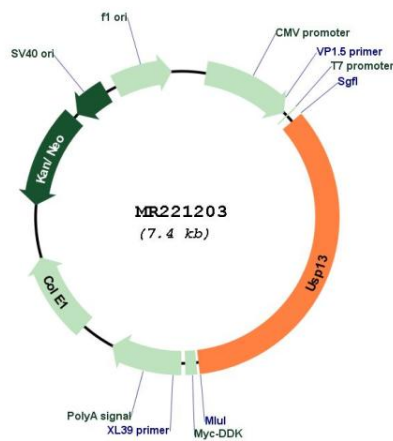


ACCN:	NM_001013024
ORF Size:	2577 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its 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_001013024.1
RefSeq Size:	4686 bp
RefSeq ORF:	2577 bp
Locus ID:	72607
UniProt ID:	Q5BKP2
Cytogenetics:	3 A3
MW:	96.7 kDa

Gene Summary:

Deubiquitinase that mediates deubiquitination of target proteins such as BECN1, MITF, SKP2 and USP10 and is involved in various processes such as autophagy and endoplasmic reticulum-associated degradation (ERAD). Component of a regulatory loop that controls autophagy and p53/TP53 levels: mediates deubiquitination of BECN1, a key regulator of autophagy, leading to stabilize the PIK3C3/VPS34-containing complexes. Also deubiquitinates USP10, an essential regulator of p53/TP53 stability. In turn, PIK3C3/VPS34-containing complexes regulate USP13 stability, suggesting the existence of a regulatory system by which PIK3C3/VPS34-containing complexes regulate p53/TP53 protein levels via USP10 and USP13. Recruited by nuclear UFD1 and mediates deubiquitination of SKP2, thereby regulating endoplasmic reticulum-associated degradation (ERAD). Also regulates ERAD through the deubiquitination of UBL4A a component of the BAG6/BAT3 complex. Mediates stabilization of SIAH2 independently of deubiquitinase activity: binds ubiquitinated SIAH2 and acts by impairing SIAH2 autoubiquitination. Has a weak deubiquitinase activity in vitro and preferentially cleaves 'Lys-63'-linked polyubiquitin chains. In contrast to USP5, it is not able to mediate unanchored polyubiquitin disassembly. Able to cleave ISG15 in vitro; however, additional experiments are required to confirm such data.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR221203