

## Product datasheet for MR211601

### Usp8 (NM\_019729) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Usp8 (NM_019729) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Usp8
Synonyms:	A1574262; AW557536; mKIAA0055; Ubpy
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211601 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGTAGCTTCAGTTCTAAAGAACTCTACCTCAGTTCTTCACTAAAAGACCTCAATAAGAAGA  
CCGAAGTTAAACCTGAGAAAACCAGCACCAAGAATTATACACAGCGCGCAGAAGATCTTCAAGACAGC  
AGAAGAATGCAGACTAGATCGTGATGAGGAAAGGGCTATGTGCTTTATGAAATATGTGGCAGTTTAT  
AATCTTATCAAAAAGAGACCTGATTTCAAGCAACAGCAGGATTATTATCTTTCAACTTGGACCTGCAA  
ACATCAAAAAGCTATTGAAGAAGCTGAAAGACTCTCCGAAAGCCTTAACTAAGATACGAAGAGGCTGA  
AGTTCCGAAACAACCTTGAAGAAAAGGACAGACGGGAGGAAGAGCAGCTGCAGCAACAGAAAAGGCAGGAG  
ATGGGGAGAGAGGACAGCGGTGCGGCAGCCAAACGCTCTGTGGAAAATTTACTGGATTCCAAAACAAAA  
CCCAAAGGATTAACGGCGAGAAGAGTGAAGGAGCTGCAGCTGCAGAGAGAGGAGCCATCACAGCAAAGGA  
ACTATATACGATGATGGATAAAAACACAAGCTTAATTATAATGGATGCTCGAAAAATACAGGATTAT  
CAGCATTCTGTATCTTGGATTCTCAGTGTTCTGAAGAAGCTATCAGTCCAGGAGTCACTGTAGTT  
GGATTGAAGCAAACCTCTCAGATGATTCTAAAGACACATGGAAAAAGAGGGGAGTGTGGACTATGTGGT  
CCTTCTCGACTGGTTTAGTTCAAGCAAGATTTGCTGCTTGGGACCACTACGGAGTCTGAAAGATGCA  
CTTTTCAAGTGGGAAAGTAAAAGTGTCTGCGCCATGAGCCTTTGGTGTGGAGGGCGGCTATGAAAAC  
GGCTGCTTTGCTACCCGAGTTTACAACCAATGCTAAGGTCACTCCACCCCTCGGAGCAGAGCTGAAGA  
GGTGTCTGTCTATTGGATTTTACTTATCCCTCATTGGAAGAACCAGTTCCTTCCAACTTCTACCCAG  
ATGCCACCTCCTCTATAGAAAACAAATGAAAAGGCACTGTTGGTAACTGATCAAGATGAAAAGCTGAGAC  
TGTCAACCCAGCCAGCTCTAGCTGGACCTGGTGGCTCCAGAGCTGAAGCCTCACCCATAATTCAGCC  
AGCGCCTGCTACAAAGAGTGTCCACAGGTTGATCGTACGAAAAAACCGTCAAGTCAAGTTGCTGAAAGAT  
CATAGAATAAAAATCTGAAAATACAGATCAGAGTGAAGAGTTCCTTCTGATCGATCCACCAAGCCAGTAT  
TTCCCTCTCAACCAACATGTTAACAGATGAAGAAAAGGCTCGTATTCATCAAGAACTGCCTTCTTAT  
GGAAAAGAATAAACAGGAGAAGGAACCTTGGGACAAGCAGCAGAAGGAACAGAAAAGAGAAGCTGAGAAG



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GAGGAACAAGAGCGCAAAGCTGGAAGACACAGGATGCAGATGAACGTGACTCCACTGAGAATCAGCACA  
 AAGCAAAGGATGGACAAGAGAAAAAGACAGCAAACAGACCAAGACGGAAGACAGAGAGCTTTCAGCAGA  
 CGGGGCCAGGAAGCCACAGGAACACAAAGACAAAGTAAGAGTGAGCATGAAGCTTCTGATGCTAAGGTA  
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 TGTCAGGAGAGCTGAATGCAGGCAAGGCTCAGCGAGAACCTTTGACGAGAGCAGCAAGTGAAGAAATGGG  
 GAGAATTGTGCCGGGACTGCCTTTGGGCTGGGCCAAGTTTCTTGATCCAATCACCGGGACCTTTCGTTAC  
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 CCCC GCCACTCACAAAGTCAAGCCCCAGGTCCCTGCCGAGCGGGACAGGGAGCCATCGAAACTGAAGCG  
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 ATGGTCAACCGGAAAACAAGCCACCATGTTACCTAAAGCTGAGATTCGAGGCTTTCTGCTTCTCAGA  
 TTCGGAACCTCAATCCTGATTTGGAGGATCAGGACCAGCTTTACTGGACTTCGTAATTTGGAAATAC  
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 TGCTACCAGGATGATATCAACAGGTCAAATTTGTTGGGCATAAAGGTGAAGTGGCAGAAGAATTTGGTA  
 TAATCATGAAAGCACTGTGGACAGGACAGTATAGATACATCAGTCAAAGGACTTTAAAGTACCATTGG  
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 GTTCCAGGGCCAGTTCAAGTCCACAGTGCAGTGCCTCACCTGCCGAGGAGGTCGCGCACCTTCGAGGCC  
 TTCATGTACTTGTCTTTGCCGCTAGCATCCACAAGTAAATGTAAGTCTACAGGACTGCCTTAGATTATTT  
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 AAAGAAAATAGAAATCTGGAAATTAACCTCCTGTGCTGTAGTGCACCTGAAACGATTTTCTATGACGGC  
 AGGTGGAAGCAGAAGCTGCAACATCCGTGGATTTCCATTGGAAAATCTTGACCTGTACAGTACGTTA  
 TTGGTCCAAAAAACAGCTTGAAGAAATATAACTGTTTTCTGTTTCAAACCACTACGGCGGGCTAGACGG  
 AGGCCACTACACAGCCTACTGTGAAGAACGCGCAAGGCAGCGCTGGTTTAAAGTTTGTATGACCATGAAGTT  
 TCTGATATCTCTGTCTTCTGTGAGGTCATCAGCAGCTTATATCCTCTTTTATACTTCCCTGGACCAC  
 GCATAACTGATGTAGCCACA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR211601 protein sequence  
 Red=Cloning site Green=Tags(s)

MPAVASVPKELYLSSSLKDLNKKTEVKPEKTSTKNYIHSQKIFKTAEECRDRDEERAYVLYMKYVAVY  
 NLIKRRPDFKQQQDYLSILGPANIKKAIIEEAERLSESLKLYEEAEVRKQLEEKDRREEEQLQQQKRQE  
 MGREDSGAAAKRSVENLLDSKTKTQRINGEKSEGAAAERGAITAKELYTMMMDKNTSLIIMDARKIQDY  
 QHSCILDSLVPPEEAI SPGVTASWIEANLSDSKDTWKKRGSVDYVLLDFWSSAKDLLLGTTLRSLKDA  
 LFKWESKTVLRHEPLVLEGGYENWLLCYPQFTTNAKVTPPPRSRAEEVSVSLDF TYP SLEEVPSKLPQT  
 MPPPIETNEKALLVTDQDEKLRLSTQPALAGPGAAPRAEASPIIQPAPATKSVQVDRTKKPSVKLPED  
 HRIKSENTDQSGRVLSDRSTKPVFPSPPTMLTDEEKARIHQETALLMEKNKQEKELWDKQKQEKELRR  
 EEQERKAGKTQDADERDSTENQHKAKDGQEKKDSKQTKTEDRELSADGAQEATGTQRQSKSEHEASDAKV  
 PVEGKRCPTSEAQKRPADVSPASVSGELNAGKAQREPLTRARSEEMGRIVPGLPLGWAKFLDPITGTFRY  
 YHSPTNTVHMYPPEMAPSSAPPSTPPTHKVKPQVPAERDREPSKLRYSYSPDITQALQEEKRRPAVTP  
 MVNRENKPPCYPKAEISRLSASQIRNLNPVFGGSGPALGLRNLGNTCYMNSILQCLCNAPHLADYFNRN  
 CYQDDINRSNLLGHKGEVAEEFGIIMKALWTGQYRYISPKDFKVTIGKINDQFAGSSQDSQELLFLMD  
 GLHEDLNKADNRKRHKEENNEHLDDLQAAEHAWQKHKQLNESIIIVALFQGFKSTVQCLTCRRRSRTFEA  
 FMYLSLPLASTSKCTLQDCLRLF SKEEKLTDNNRFYCSHCRARRDSLKKIEIWKLPVLLVHLKRF SYDG  
 RWKQKLQTSVDFPLENLDLSQYVIGPKNSLKKNYLFVSNHYGGLDGGHYTAYCKNAARQRWFKFDDEHV  
 SDISVSSVRSSAAYILFYTSLGPRITDVAT

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_019729

**ORF Size:** 3243 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\\_019729.3](#), [NP\\_062703.2](#)

**RefSeq Size:** 4177 bp

**RefSeq ORF:** 3243 bp

**Locus ID:** 84092

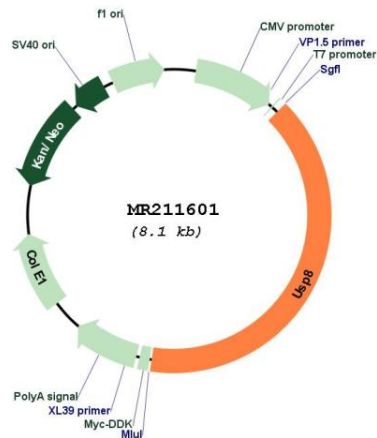
**UniProt ID:** [Q80U87](#)

**Cytogenetics:** 2 F1

**MW:** 122.6 kDa

**Gene Summary:** Hydrolase that can remove conjugated ubiquitin from proteins and therefore plays an important regulatory role at the level of protein turnover by preventing degradation. Converts both 'Lys-48' an 'Lys-63'-linked ubiquitin chains. Catalytic activity is enhanced in the M phase. Involved in cell proliferation. Required to enter into S phase in response to serum stimulation. May regulate T-cell anergy mediated by RNF128 via the formation of a complex containing RNF128 and OTUB1. Probably regulates the stability of STAM2 and RASGRF1. Regulates endosomal ubiquitin dynamics, cargo sorting, membrane traffic at early endosomes, and maintenance of ESCRT-0 stability. The level of protein ubiquitination on endosomes is essential for maintaining the morphology of the organelle. Deubiquitinates EPS15 and controles tyrosine kinase stability. Removes conjugated ubiquitin from EGFR thus regulating EGFR degradation and downstream MAPK signaling. Involved in acrosome biogenesis through interaction with the spermatid ESCRT-0 complex and microtubules. Deubiquitinates BIRC6/bruce and KIF23/MKLP1 (By similarity). Deubiquitinates BACE1 which inhibits BACE1 lysosomal degradation and modulates BACE-mediated APP cleavage and amyloid-beta formation (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR211601