

## Product datasheet for MR201089

### Ube2w (NM\_025773) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ube2w (NM\_025773) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Ube2w  
**Synonyms:** 6130401J04Rik  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR201089 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGTCAATGCAGAAACGACTACAAAAAGAACTGTTGGCTTTGCAGAATGACCCACCTCCTGGAATGA  
CTTTAAATGAAAAGAGTGTTCAGAATTCATCACGCAGTGGATCGTAGACATGGAAGGTGCACCAGGAAC  
CTTATATGAAGGGGAAAAATTTCAACTTTGTTTAAATTTAGTAGTCGATACCCTTTTGACTCTCCTCAG  
GTCATGTTTACTGGTAAAAATATCCCATTCATCCTCATGTGTATAGCAATGGTCATATCTGTTTATCCA  
TTCTAACAGAAGACTGGTCCCCGGCGCTCTCAGTGCAGTCAGTCTGTCTCAGCATTATCAGCATGCTTTC  
CAGCTGCAAAGAAAAGAGACGACCACCAGATAATTCCTTTTATGTGCGAACATGTAACAAGATCCAAAG  
AAAACAAAATGGTGGTATCATGATGACACTTGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR201089 protein sequence  
Red=Cloning site Green=Tags(s)  
MASMQKRLQKELLALQNDPPPGMTLNEKSVQNSITQWIVDMEGAPGTYEGEKFQLLFKFKSSRYPFDSPQ  
VMFTGENIPIHPHVYSNGHICLSILTEDWSPALSVQSVCLSIISMLSSCKEKRRPPDNFVYVRTCNKNPK  
KTKWWYHDDTC

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**


**ACCN:** NM\_025773

**ORF Size:** 456 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\\_025773.4](#)

**RefSeq Size:** 3139 bp

**RefSeq ORF:** 543 bp

**Locus ID:** 66799

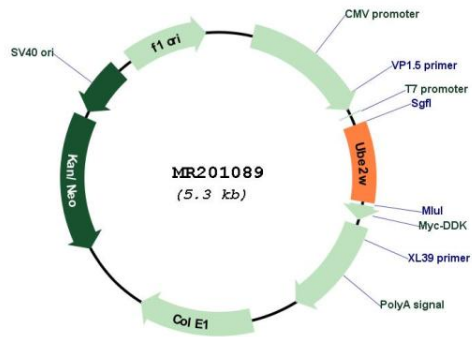
**UniProt ID:** [Q8VDW4](#)

**Cytogenetics:** 1 A3

**MW:** 17.3 kDa

**Gene Summary:** Accepts ubiquitin from the E1 complex and catalyzes its covalent attachment to other proteins. Specifically monoubiquitinates the N-terminus of various substrates, including ATXN3, MAPT/TAU, POLR2H/RPB8 and STUB1/CHIP, by recognizing backbone atoms of disordered N-termini (PubMed:21855799, PubMed:21229326). Involved in degradation of misfolded chaperone substrates by mediating monoubiquitination of STUB1/CHIP, leading to recruitment of ATXN3 to monoubiquitinated STUB1/CHIP, and restriction of the length of ubiquitin chain attached to STUB1/CHIP substrates by ATXN3 (PubMed:21855799). After UV irradiation, but not after mitomycin-C (MMC) treatment, acts as a specific E2 ubiquitin-conjugating enzyme for the Fanconi anemia complex by associating with E3 ubiquitin-protein ligase FANCL and catalyzing monoubiquitination of FANCD2, a key step in the DNA damage pathway (PubMed:21229326). In vitro catalyzes 'Lys-11'-linked polyubiquitination. UBE2W-catalyzed ubiquitination occurs also in the presence of inactive RING/U-box type E3s, i.e. lacking the active site cysteine residues to form thioester bonds with ubiquitin, or even in the absence of E3, albeit at a slower rate (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR201089