

## Product datasheet for **MG226490**

### Usp14 (NM\_021522) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Usp14 (NM_021522) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Usp14
Synonyms:	2610005K12Rik; 2610037B11Rik; AW107924; ax; C78769; nmf375
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG226490 representing NM\_021522  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCACTCTACTCTGTTACAGTAAAATGGGAAAGGAGAAGTTGAAGGTGTAGAATTGAATACTGATG  
 AACCTCCAATGGTGTTCAAAGCCAGCTTTTTGCATTGACTGGAGTCCAGCCAGCCAGACAAAAAGTTAT  
 GGTGAAAGGAGGAACCTGAAGGATGATGACTGGGAAACATCAAAATGAAAAATGGAATGACTGTACTA  
 ATGATGGGGTTCAGCAGATGCTCTCCAGAAGAACCCTCTGCTAAAAGTCTTCGTAGAAGACATGACAG  
 AAGAACAGTTAGCAACCCTATGGAATTGCCATGTGGATTGACAAACCTTGGTAACACTTGTACATGAA  
 TGCTACAGTTCAGTGTATTCGTTCTGTGCCTGAACTCAAAGATGCCCTTAAAAGGTATGCAGGTGCGTTG  
 AGAGCTTCAGGAGAAATGGCTTCAGCACAGTATATTACTGCAGCTCTTAGAGATTTGTTTGATTCCATGG  
 ATAAAACCTCTTCTAGTATCCACCTATTATTCTGCTGCAGTTTCTGCACATGGCCTTCCACAGTTTGC  
 AGAGAAGGGCGAACAAGGGCAGTATCTTACGAGGATGCTAACGAATGCTGGATACAAATGATGAGAGTC  
 CTGCAACAGAAACTAGAACCCATAGAGGATGATTCTGGTAGAGAGACGGATTCTTCATCTGCACCAGCGG  
 TGACACCTTCTAAAAAGAAAAGCTTAATTGATCAATATTTGGTGTGAGTTGAAACTACCATGAAATG  
 TACAGAATCTGAAGAAGAAGAGGTACCAAAGGAAAGGAAAATCAACTTCAACTTAGTTGTTTCATTAAC  
 CAGGAAGTGAAGTATCTTTTACAGGGCTGAAATTGCGACTTCAGGAAGAAATTAATAACAGTCTCCAA  
 CACTGCAGAGAAATGCTTTGTACATCAAATCTTCTAAGATCAGCCGGCTACCTGCTTACTTAACATTTCA  
 AATGGTTTCGATTTTTTATAAGAGAAAAGAAATCTGTGAACGCCAAAGTCTTAAGGATGTTAAGTTTCT  
 CTTATGTTGGATGTGTGAACCTCTGCACACCAGAACTCAAGAGAAAATGGTCTCTTTTCGGTCAAAAT  
 TCAAGGATCTAGAAGATAAAAAAGTGAATCAGCAACCAATGCAAAATGACAAGAATAGTCTCCGAAAGA  
 GATTAAGTATGAACCCTTTTCATTTGCTGACGATATTGGCTCCAATAATTGTGGCTACTATGACTTACAA  
 GCAGTGTAACTACCAGGGAAGATCTAGTTCTTCAGGTCATTATGTATCATGGGTGAGAAGAAAACAAG  
 ATGAATGGATCAAATTTGATGATGATAAGGTGAGCATTGTAACCCAGAGATATTCTGCGGCTGTCTGG  
 TGGTGGAGACTGGCACATTGCTTATGTTCTACTTTATGGGCTCGAAGAGTTGAAATAATGGAAGAAGAA  
 AGTGAACAG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG226490 representing NM\_021522  
 Red=Cloning site Green=Tags(s)

MPLYSVTVKWKKEKFEQVELNTDEPPMVFKALFALTVGQPARQKVMVKGGLKDDDWGNIKMKNGMTVL  
 MMGSADALPEEPSAKTVFVEDMTEEQLATAMELPCGLTNLGNTCYMNATVQCIRSVPELKDALKRYAGAL  
 RASGEMASQYITAALRDLFDSMDKTSSSIPPIILLQFLHMAFPQFAEKGEQGQYLQQDANECWIQMMRV  
 LQQKLEAIEDDSGRETDSSAPAVTPSKKSLIDQYFGVEFETTMKCTESEEVEVTKGKENQLQLSCFIN  
 QEVKYLFTGLKLRLQEEITKQSPTLQRNLYIKSSKISRLPAYLTIQMVRFYKEKESVNAKVLKDVKFP  
 LMLDVYELCTPELQEKMVSFRSKFKDLEDKKNVQPNANDKNSPPEIKYEPFSFADDIGSNNGCYDLQ  
 AVLTHQGRSSSSGHYVSWVRKQDEWIKFDDDKVSIPTPEDILRLSGGGDWHIAYVLLYGPRRVEIMEEE  
 SEQ

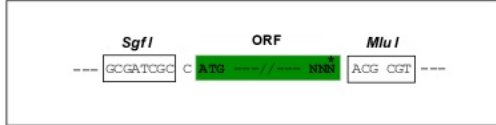
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Kozac  
Consensus

EcoRI    BamHI KpnI    RBS    SgfI    AscI

CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

HindIII    NheI    RsrII    MluI    NotI    XhoI    GFP Tag

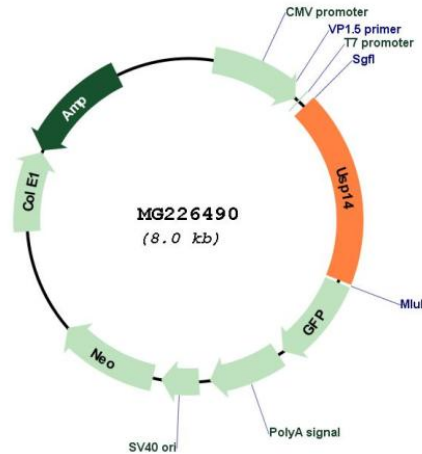
CAAGCTTAAGCTAGCTAGCGGACCG    ACG CGT    ACG CGG    CCG CTC GAG    ATG GAG AGC GAC --- --- ---

T    R    T    R    P    L    E    M    E    S    D    -    -    -

PmeI    FseI

--- --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT

- - - E E R V Stop

**Plasmid Map:**


**ACCN:** NM\_021522

**ORF Size:** 1479 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\\_021522.4](#), [NP\\_067497.2](#)

**RefSeq Size:** 4185 bp

**RefSeq ORF:** 1482 bp

**Locus ID:** 59025

**UniProt ID:** [Q9JMA1](#)

**Cytogenetics:** 18 4.91 cM

**Gene Summary:** Proteasome-associated deubiquitinase which releases ubiquitin from the proteasome targeted ubiquitinated proteins. Ensures the regeneration of ubiquitin at the proteasome. Is a reversibly associated subunit of the proteasome and a large fraction of proteasome-free protein exists within the cell. Required for the degradation of the chemokine receptor CXCR4 which is critical for CXCL12-induced cell chemotaxis. Serves also as a physiological inhibitor of endoplasmic reticulum-associated degradation (ERAD) under the non-stressed condition by inhibiting the degradation of unfolded endoplasmic reticulum proteins via interaction with ERN1. Plays a role in the innate immune defense against viruses by stabilizing the viral DNA sensor CGAS and thus inhibiting its autophagic degradation.[UniProtKB/Swiss-Prot Function]