

## Product datasheet for **MG226452**

### Usp36 (NM\_001033528) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Usp36 (NM_001033528) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Usp36
Synonyms:	2700002L06Rik; mKIAA1453
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG226452 representing NM_001033528 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCTATAGTCGATAAGCTGAAGGAGGCTCTCAAGCCTGGCCGCAAGGACTCGGCCGAGGATGGGGACC  
TGGGCAGGCTGCTGGCAGCCTCTGCCAAGAAGGTGCTTCTGCAGAGGATTGAGTTTGAGCCGGCCAGCAA  
GAGCTTCTCTACCAGCTGGAGTCTTGAAGAGCAAATACGTACTGTTGAGCGCCAGGGCTGAGGGAGCC  
AGTCGCCACAGGAGCGGAGATGAACTCCAGGCCAGGAAACCAGGCACCGAGCGTGTGTCTGGAAGTGGAG  
GCGACGGAGTCCCTGCCCGCAGAAAGTCTCTCCCTGTGGAGCGTCTGTCCCTGAGGTGGAACTGTGT  
TTTCCGAGTTGGCGCAGGGCTGCACAACCTGGGTAAACACCTGCTTCTCAACTCCACCATCCAGTGCCTG  
ACCTACACACCACCTCTGGCCAACCTACTTGTCTCCAAGGAGCACGCACCGAGCTGTCAACCAAGGGGGCT  
TCTGCATGCTGTGTCTCATGCAAAACCATGGTCCAGGCCTTTGCCAACAGCGGCAATGCATCAAGCC  
CGTCTCCTTTCATCAGAGACCTGAAAAAGATTGCCCGGCACTTCCGGTTCGGGAACCAAGAGGATGCACAC  
GAATTCCTGCGGTACACCATTGATGCGATGCAGAAGGCCCTGCTTGAATGGCTACGCTAAGTTGGATCGGC  
AGACACAGGCTACTACCCTGGTGCATCAGATCTTTGGAGGCTATCTCAGGTCCCAGTGAAGTGTCTGT  
GTGCAAGAGTGTCTCAGACACATACGATCCCTACTTGGACATGACTGGAGATCCGGCAAGCTGCAAAAT  
ATTGTGCGCGCTCTGAACTTTTTGTGAAGTCAGATGTCCCTGAGTGGAGAGAAGCCCTATATGTGTGCTA  
AGTGTAAGAAGAAGGTTCCAGCCAGCAAGCGCTTCAACATCCATAGAACATCCAATGTCCTGACTCTGTC  
CCTCAAGCGCTTCGCCAACTTTAGTGGGGGAAGATCACCAAGGATGTTGGCTATCCAGAGTTTCTGAAAC  
ATCCGTCCATACATGTCGAGAGCAGCGGTGATCCTGTGATGATGGGCTCTATGCTGTCTGCTGCACT  
CAGGCTACAGCTGTCACGCTGGGCACTACTACTGCTATGTGAAGGCCAGCAATGGACAGTGGTACCAGAT  
GAACGACTCCTTGGTCCATTCCAGCAATGTCAAGGTGGTCTGAACCAGCAGGCCACTCGTCTTCTAT  
CTGCGGATTCCAGGCTCTAAGAAAAGTCTGAGGGCCCTGTCTCCAGAGTGGCGCCACTCTCCCTAGCC  
GTCCCAAAGTTGTTCCAGAGCACTCCAAGAAGAGCCCTGGCAATGGGTTGTTCCCTCCCGCTGATGCC  
AAAGCGACAAGACTCTGTAATGATGAGAAAGCTCCAGCCCTGAGGAGTTGGCGTACCTGTGTCAGA



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AATGGCTCCCTTCTGGCCTGAAGTTACAGAACGGATGTGCTCCTGCCAAGACACCTGCCGGTCCCCGT  
 CCCAAGACTCACGCCACGCCACTCATATGCCACCATTCTGGATGAGCCCGAAAGAAGGTGAAGAA  
 GTCAGCCCCACTGCAGTCTCTACCACATCTCAAACCATTCTCAGGGCTCTCCTGGGACCCGGCAGTCC  
 CGGAGCCAGCGGCCCGGCTCTGGGCAAGCAGAGACACCATCTTCTCTACCTCCCCGAAGCTCCTGGCCA  
 GAGCCATTACTAACGGGCACAGGCTGAAGGGCAAGGCAGTGGTGTGGACCTGGAGAAGGGGATTCAAG  
 CAGCTCCAGCCCCGAGCACTCTGCCAGCAGTGACCCTGCCAAGGCCCCGAGACCCGAGAGCAGAGCT  
 CGCATGCCTGTGATTCTCAGGGAACAACTGTCCCACCCTGGCCATCCCAAAGCGCTGTTGAATGGAG  
 TAGATGCCAAGATGGTGAAGTTGAAGTCCCGGCCCTGAGCAGCACCAACCGAGCCCAAGCCTCAT  
 GTCTCCTCCACCAGCAAAAACTGGCCCTGTGAGCAAGAAGGCCAGCACCCCTGCGGAGGGCGACCCGGC  
 AATGACATCGTTTACCTTCCCCCTCAGCATTCTGCGACCTCACCTCCCCATGAAAGCCACCCACCCCG  
 TCGTTGCCTCCACTGGGCTGTGAGTAAGACCAGGACTGCTGCACCTGCCCCCGACCGTCCACCCACCC  
 CCACTCTGCATCTGTCCAGTAGTAGTCCAAGCCCTTAGGGACATCAGAGCCACAGAGCTGCCGCCCC  
 TCTGCCTGGACACCCCTGCCTCAGGTCAATGGACACTTACGTCCCCTTACACCAACTGCCAGAGGCCA  
 GCGAGGCCCTACACAGCCCTCCAAAAAGAGGAAAAAGACCCCTAATGGAGATCCCAGAGACTGGGCAT  
 CGACACGCTCCTCCACAGTGCCTCAGGGGAGCACCTGCAGCAGCACGCAGGAAGAGAAAGAAGAGGTGC  
 TCGGAGGGTGAAGGTGCCACAGTCCCAAGCAGGAAGGCCAATTCAGGACCAAGTCTGGAGTCCGGGA  
 GCCAGAAGGAAGAGGGTACGCAGCCCCAGTAAATGGCCATCAAGTGAGTCACTTCTGGACAGTTACCA  
 TGTGAGCAGCAGGAAAAGGAGGAAGAGGAAAAGATCGGAAGGACTCAGCCAGGAAGCCACCCCGTCGCAG  
 GACCTAATTCAGCACAGCTGCTCCCCTGTAGACCACAGTGAGCCTGAGGCCAGGACAGAGTTGCAGAAGA  
 AGAAGAAGAAGAAAAGGAAAAGAAAGCCCGAGCCACAGCAGGATGAAGAGAGCAAGCACCCAGGAGA  
 CCAGAGGAGCCCAAGGCCAGTGTACCCCAAGTCCCTGCGTTGAGTGTGAATGGCCATCTTCTAGTGAC  
 TGCTTGGGGCTGGGACAAGCACCTCTCGTTACCTGGAACAGAGATCAGGAACCCGATGTGGTCCAGGCGT  
 TGCTTCAGGACTCATCTGATAAGGCTTATGGGAAAAAGTTTTGACCTGGGATGGCGAGCCTTACGCCAT  
 CAGTCAGGACGCCATCAAAGACAGCAGACTAGCCCGACCCAGACCGTGGTTGACGATGGGATGAAGAG  
 TTTGATCGAGGGAAGGAAAAGAAAATTAAGAAAGTTCAAGAGAGAAAAGAGAGAACTTCAATGCCTTCC  
 AGAAGCTTCAAGTAGGCGCAACTTTTGGTCTGTGACGCATCCTGCTAAGGTGGCCAGCCTCAGCTATCG  
 CCGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG226452 representing NM\_001033528  
 Red=Cloning site Green=Tags(s)

MPIVDKLKEALKPGRKDSAEDGDLGRLLAASAKVLLQRIEFEPASKSFSYQLESLSKSKYVLLSARAEGA  
 SRHRSGDELQARKPGTERVSGSGDGVAPQKVLFPVERLSLRWERVFRVGAGLHNLGNTCFLNSTIQCL  
 TYTPPLANYLLSKEHARSCHQGGFCMLCLMQNHMVQAFANSGNAIKPVSFIRDLLKIIARHFRFNQEDAH  
 EFLRYTIDAMQKACLNQYAKLDRQTQATTLVHQIFGGYLRSRVKCSVCKSVSDTYDYPYLDIALEIRQAAN  
 IVRALELFVKSDVLSGENAYMCAKCKKVPASKRFTIHRSTSNVLSLKRKFANFSGGKITKDVGYPEFLN  
 IRPYMSQSSGDPVYGLYAVLVHSGYSCHAGHYCYVKA SNGQWYQMNDSLHSSNVKVVLNQAYVLFY  
 LRIPGSKKSPGVPVSRVATLPSRPKVVPESHKSPGNGVVPSPMLAKRQDSVMMRKLPAPEE VGVVPSR  
 NGLSLPGLKLQNGCAPAKTPAGSPSPRLTPTPTHMPTILDEPGKKVKKSAPLQSLTTSPTTSQSGPSTGES  
 RSQRPGSWASRDITFSTSPKLLARAITNGHRLKGEESVDLEKGDSSSSSPEHSASSDPAKAPQTAESRA  
 AHACDSQGTNCP TAGHPKALLNGVDAKMVKLKSAL SSTTTEPTSLMSPPPAKKLALSAKKASTLRRATG  
 NDIGSPSPSAFCDL TSPMKATHPVVASTGPVSKTRTAAPAPRPS THPHSASLSSSSAKPLGTSEPQSCR  
 SAWTPLPQVNGHFTSHLHQLPEASEALHSPSKRKKTPNGDPQRLGIDTLLPQCLRGAPAAARRRKRKRC  
 SEGEGATAPKQEQFQDQSWSSGSQKEEGTQPQVNGHQVSHILDSYHVSSRKRKRKRREGLSQAETPSQ  
 DLIQHSCSPVDHSEPEARTELQKKKKKRKRKPEPQQDEE SKHPGDQSPRPSVTPVPALSVNGHLP  
 CLGLGQAPLVWNRDQEPDVQALLQDSSDKAYGKKVL TWDGEP SAI SQDAIKDSRLARTQTVVDDWDEE  
 FDRGKEKIKKFKREKRNFAFQKLQSRNRFWSVTHPAKVASLSYRR

TRTRPLE – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI



<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001033528.1, NP_001028700.1</u>
<b>RefSeq Size:</b>	5609 bp
<b>RefSeq ORF:</b>	3297 bp
<b>Locus ID:</b>	72344
<b>UniProt ID:</b>	<u>B1AQJ2</u>
<b>Cytogenetics:</b>	11 E2
<b>Gene Summary:</b>	Deubiquitinase essential for the regulation of nucleolar structure and function. Required for cell and organism viability. Plays an important role in ribosomal RNA processing and protein synthesis, which is mediated, at least in part, through deubiquitination of DHX33, NPM1 and FBL, regulating their protein stability (PubMed:29273634). Function as a transcriptional repressor by deubiquitinating histone H2B at the promoters of genes critical for cellular differentiation, such as CDKN1A, thereby preventing histone H3 'Lys-4' trimethylation (H3K4). Specifically deubiquitinates MYC in the nucleolus, leading to prevent MYC degradation by the proteasome: acts by specifically interacting with isoform 3 of FBXW7 (FBW7gamma) in the nucleolus and counteracting ubiquitination of MYC by the SCF(FBW7) complex. In contrast, it does not interact with isoform 1 of FBXW7 (FBW7alpha) in the nucleoplasm. Interacts to and regulates the actions of E3 ubiquitin-protein ligase NEDD4L over substrates such as NTRK1, KCNQ2 and KCNQ3, affecting their expression and functions. Deubiquitinates SOD2, regulates SOD2 protein stability. Deubiquitinase activity is required to control selective autophagy activation by ubiquitinated proteins (By similarity).[UniProtKB/Swiss-Prot Function]