

## Product datasheet for **MG225462**

### **Fbxw7 (NM\_080428) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Fbxw7 (NM_080428) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fbxw7
Synonyms:	1110001A17Rik; AGO; Cdc4; Fbw7; Fbwd6; Fbx30; Fbxo30; Fbxw6; SEL-10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG225462 representing NM\_080428  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCGTGTGTGCGTCCCAGCAGCGTTCTGGTTCTGAGCTGCGTCTGCTGGTCTGGGGAGTTTTGCTGC  
 CGGTTCCGCTGCCTAATCTTCTTTTCTGGCGTGCTGAGCATGTCCACGTTAGAATCTGTGACATACCT  
 ACCTGAAAAGGGGTTATATTGTCAGAGACTGCCAAGCAGCCGGACACACGGGGGCACAGAATCCCTGAAG  
 GGGAAAAATACAGAAAATATGGGTTTCTACGGCACATTAATAATGATTTTTTACAAAATGAAAAGAAAGT  
 TGGACCATGGTTCTGAGTTTCGTTCTTTTCTTTGGGAAAGAAACCATGCAAAGTCTCAGATTATACCGAG  
 TACCACTGGCCTGTACCATGTTCAACACCAACAACCTTTGGGGACCTGAGAGCAGCCAATGGGC  
 GGGCAGCAGCGCGGAGGATTACATCTGTCCAACCCACAGGCCTTCAAGAGTGGCTGAAAATGTTTC  
 AGAGCTGGAGCGGACCAGAGAAGTTGCTGGCTTAGATGAGCTCATTGACAGCTGTGAACCAACACAAGT  
 GAAGCATATGATGCAAGTATAGAGCCCAAGTCCAGCGAGACTTCATCTCCTTGCTTCTAAAGAGTTG  
 GCACTCTATGTGCTTTCATTCTGGAACCCAAAGACCTGCTGCAAGCGGCTCAGACTTGTGATACTGGA  
 GAATTTTGGCTGAGGATAACCTTCTCTGGAGAGAGAAATGTAAGAAGAGGGGATTGATGAACCGTTGCA  
 CATCAAGAGAAGAAAAATAATAAACAGGTTTCATACACAGCCCATGGAAGAGTGCATATACAGACAG  
 CACAGAATTGATACAAACTGGAGACGAGGAGAAGTCAAACTCTCCTAAGGTGCTGAAAGGGCATGATGACC  
 ATGTGATCACATGCCTACAGTTTGTGGCAACCGCATAGTTAGTGGTCTGATGACAACACTTTAAAGT  
 TTGGTCAGCGGTACGGGCAAGTGTCTGAGAAGCTTAGTGGGACATACAGGTGGAGTGTGGTTCATCACAG  
 ATGAGAGACAATATCATCATCAGTGGATCGACTGACCGGACTCTCAAAGTGTGGAATGCTGAAACTGGAG  
 AGTGTATACATACTTTATATGGGCACACTTCTACTGTACGGTGTATGCATCTCCATGAAAAAGGGTTGT  
 AAGCGGTTCTCGAGATGCCACTCTCAGGGTTTGGGATATTGAGACCGGCCAGTGTTCACAGTCTGATG  
 GGTACAGTACGAGCGGTCCGCTGCGTTCAGTATGATGGCAGGAGGTTGTTAGTGGAGCTTATGATTTTA  
 TGGTGAAGGTGTGGGATCCAGAGACTGAGACCTGTCTACACACGTTACAGGGACACACTAATAGAGTCTA  
 TTCATTACAGTTTGTGATCCATGTGGTGGTGGATCTCTTGATACATCAATCCGAGTCTGGGATGTG  
 GAGACAGGGAATTGATTCACACGCTAACAGGACACCAGTCAATTAACGAGTGGAAATGGAACCTCAAAGACA  
 ATATTCTGTCTCTGGGAATGCAGATTCTACAGTTAAGATCTGGGATATCAAACAGGACAGTGTTTACA  
 AACTTTGCAAGGTCCCAGCAAGCATCAGAGCGCTGTGACCTGCTTACAGTTCAACAAGAAGTTCGTAATT  
 ACCAGCTCAGACGACGGAACGGTCAAACCTGGGACTTAAAACGGGTGAATTTATCCGAAACCTCGTCA  
 CATTGGAGAGTGGGGGAGCGGGGAGTTGTGTGGCGGATCAGGGCCTCAAACACAAAGCTGGTGTGTGC  
 AGTCGGGAGTCGGAATGGAAGTGAAGAAACCAAGCTCCTGGTGTGGACTTTGATGTGGACATGAAA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG225462 representing NM\_080428  
 Red=Cloning site Green=Tags(s)

MRVCVPSSVLVLSVCWCWGVLLPVPLPNLPFLACLMSSTLESVTYLPEKGLYCQRLPSSRTHGGTESLK  
 GKNTENMGFYGLKMFYKMKRRLDHGSEVRSFSLGKKPCKVSDYTSTTGLVPCSATPTTFGLRAANGQ  
 GQQRRTISVQPPTGLQEWLKMFSWSGPEKLLALDELIDSCEPTQVKHMMQVIEPQFQDFISLLPKEL  
 ALYVLSFLEPKDLLQAAQTCRYWRILAEDNLLWREKCKEEGIDEPLHIKRRKIIPGFIHSPWKSAYIRQ  
 HRIDTNWRRGELKSPKVLKGDDHVITCLQFCGNRIVSGSDNTLVKWSAVTGKCLRTL VGHTGGVWSSQ  
 MRDNIISGSTDRTLKVNNAETGECIHTLYGHTSTVRCMHLHEKRVVSGSRDATLRVWDIETGQCLHVL  
 GHVAAVRCVQYDGRVSGAYDFMVKVPETETCLHTLQGHNTNRVYSLQFDGIHVVSGLDTSIRVWDV  
 ETGNCIHTLTGHQSLTSGMELKDNILVSGNADSTVKIWDIKTGQCLQTLQGPSKHQSAVTLQFNKFNVI  
 TSSDDGTVKLWDLKTGEFIRNLVLES GSGGVVWRIRASNTKLVCVAVGSRNGTEETKLLVLDVDFVDMK

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

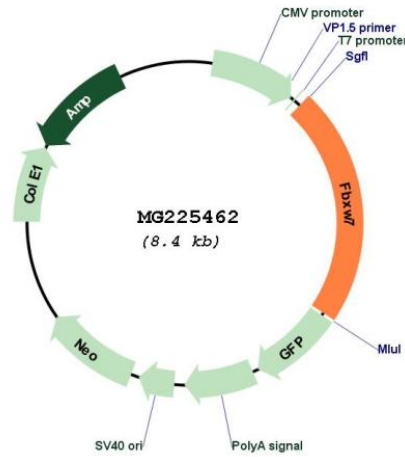
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_080428  
 ORF Size: 1887 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_080428.3</a> , <a href="#">NP_536353.2</a>
<b>RefSeq Size:</b>	3728 bp
<b>RefSeq ORF:</b>	1890 bp
<b>Locus ID:</b>	50754
<b>UniProt ID:</b>	<a href="#">Q8VBV4</a>
<b>Cytogenetics:</b>	3 37.7 cM
<b>Gene Summary:</b>	Substrate recognition component of a SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:21953459, PubMed:22748924). Recognizes and binds phosphorylated sites/phosphodegrons within target proteins and thereafter bring them to the SCF complex for ubiquitination (PubMed:22748924). Mediates ubiquitination and subsequent degradation of CCNE1 and MYC (PubMed:22748924). Identified substrates include cyclin-E (CCNE1 or CCNE2), DISC1, JUN, MYC, NOTCH1 released notch intracellular domain (NICD), NOTCH2, MCL1 and probably PSEN1 (By similarity). Acts as a negative regulator of JNK signaling by binding to phosphorylated JUN and promoting its ubiquitination and subsequent degradation (By similarity). SCF(FBXW7) complex mediates the ubiquitination and subsequent degradation of NFE2L1 (PubMed:21953459). Involved in bone homeostasis and negative regulation of osteoclast differentiation (PubMed:29149593). Regulates the amplitude of the cyclic expression of hepatic core clock genes and genes involved in lipid and glucose metabolism via ubiquitination and proteasomal degradation of their transcriptional repressor NR1D1; CDK1-dependent phosphorylation of NR1D1 is necessary for SCF(FBXW7)-mediated ubiquitination (PubMed:27238018).[UniProtKB/Swiss-Prot Function]