

Product datasheet for **MR225460**

Fbxw7 (NM_001177773) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fbxw7 (NM_001177773) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fbxw7
Synonyms:	1110001A17Rik; AGO; Cdc4; Fbw7; Fbwd6; Fbx30; Fbxo30; Fbxw6; SEL-10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR225460 representing NM_001177773
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGAATCAGGAAGTCTCTCTGTGGCAGCAAAGACGACGAAGTGGAGGCTCTCTGAGAGGGAATGCTT
CCTCAAGCCAGGTTGATGAGGGACAGATGAATCGCGTGGTTGAGGAGGATCCACAGCAGCAAGCGAGACA
TCAAGAGGAGGAGCACACTGCGCGGAATGGTGAACCTGTGGGTGCAAACCCTAGGCTGGAGACCAGAAC
GATACCCAGCAAGGACAAGTGGAGGAAAATAATAACCGCTTTATTTTCAGTAGATGAGGACTCTTCGGGAA
ATCAGGAAGAGCAAGAGGAAGATGAAGAGCATGCTGGGGAACAGGAGGAGGAAGAGGAGGAAGAGGAAGA
GGAGGAGGAGATGGACCAGGAGAGTGTGATTTTGTCCGTCTGATGACAGTAGCAGAGAAGATGAACAT
ACGCACAATAGCAATGTCACAACTGCAGTAGTGTCTCGGACCTGCCCGCTACCCAGCTCTCCTCTCCAT
TCTATACAAAGACAACAAAAATGAAAAGAAAGTTGGACCATGGTCTGAAGTTCGTTCTTTTCTTTGGG
AAAGAAACCATGCAAAGTCTCAGATTATACCAGTACCCTGGCCTGTACCATGTTCCAGCAACCAACA
ACTTTTGGGGACCTGAGAGCAGCCAATGGGCAAGGGCAGCAGCGCGGAGGATTACATCTGTCCAACCAC
CCACAGGCCTTCAAGAGTGGCTGAAAATGTTTCAGAGCTGGAGCGGACCAGAGAAGTTGCTGGCTTTAGA
TGAGCTCATTGACAGCTGTGAACCAACACAAGTGAAGCATATGATGCAAGTGATAGAGCCCCAGTCCAG
CGAGACTTCATCTCCTTGTCTTAAAGAGTTGGCACTCTATGTGCTTTCATTCTGGAACCCAAAGACC
TGCTGCAAGCGGCTCAGACTTGTGATACTGGAGAATTTTGGCTGAGGATAACCTTCTCTGGAGAGAGAA
ATGTAAGAAGAGGGGATTGATGAACCGTTGCACATCAAGAGAAGAAAAATAATAAAACCAGTTTCATA
CACAGCCCATGGAAGAGTGCATATCAGACAGCACAGAATTGATACAACTGGAGACGAGGAGAAGTCA
AATCTCCTAAGGTGCTGAAAGGGCATGATGACCATGTGATCACATGCCTACAGTTTGTGGCAACCGCAT
AGTTAGTGGTCTGATGACAACACTTTAAAAGTTTGGTCAGCGGTCACGGGCAAGTGTCTGAGAACGTTA
GTGGGACATACAGGTGGAGTGTGGTCATCACAGATGAGAGACAATATCATCATCAGTGGATCGACTGACC
GGACTCTCAAAGTGTGGAATGCTGAACTGGAGAGTGTATACATACTTTATATGGGCACACTTCTACTGT
ACGGTGTATGCATCTCCATGAAAAAGGGTTGTAAGCGGTTCTCGAGATGCCACTCTCAGGGTTTGGGAT
ATTGAGACCGCCAGTGTTCACAGTCTGATGGGTACAGTAGCAGCGGTCGCTGCGTTTTCAGTATGATG
GCAGGAGGTTGTTAGTGGAGCTTATGATTTTATGGTGAAGGTGTGGATCCAGAGACTGAGACCTGTCT
ACACACGTTACAGGGACACACTAATAGAGTCTATTTCATTACAGTTTGTGGCATCCATGTGGTGTGAGTGA
TCTCTTGATACATCAATCCGAGTCTGGGATGTGGAGACAGGGAATTGTATTCACACGCTAACAGGACACC
AGTCATTAACGAGTGGAAATGGAACCTCAAAGACAATATTCTTGTCTCTGGGAATGCAGATTCTACAGTTAA
GATCTGGGATATCAAACAGGACAGTGTTCACAACTTTGCAAGGTCCCAGCAAGCATCAGAGCGCTGTG
ACCTGCTTACAGTTCAACAAGAAGTTCGTAATTACCAGCTCAGACGACGGAACCGTCAAACCTCTGGGACT
TGAAAACGGGTGAATTTATCCGAAACCTCGTCACATTGGAGAGTGGGGGAGCGGGGAGTTGTGTGGCG
GATCAGGGCCTCAAACACAAGCTGGTGTGTGCAGTCGGGAGTCGGAATGGAACCTGAGGAAACCAAGCTC
CTGGTGTGGACTTTGATGTGGACATGAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR225460 representing NM_001177773
Red=Cloning site Green=Tags(s)

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MNQELLSVGSKRRTGGSLRGNASSQVDEGQMNRVVEEDPQQQARHQEEHTARNGELVGANPRPGDQN
DTQQGQVEENNRFI SVDEDESSGNQEEQEEDDEEHAGEQEEEEEEEEEMDQESDDFDPSDDSSREDEH
THNSNVTNCSSVSDLPAHQ LSSPFYTKTKMKRKL DHGSEVRSFSLGKKPCKVSDYTTSTGLVPCSATPT
TFGDLRAANGQGQRRRITSVQPPTGLQEWLKMFQSWSGPEKLLALDELIDSCEPTQVKHMMQVIEPQFQ
RDFISLLPKELALYVLSFLEPKDLLQAAQTCRYWRILAEDNLLWREKCKEEGIDEPLHIKRRKI IKPGFI
HSPWKSAYIRQHRIDTNWRRGELKSPKVLKGHDDHVITCLQFCGNRIVSGSDNTLKVWSAVTGKCLRTL
VGHTGGVWSSQMRDNIIISGSTDRTLKVWNAETGECIHTLYGHTSTVRCMHLHEKRVVSGSRDATLRVWD
IETGQCLHVLMGHVAAVRCVQYDGRVVS GAYDFMVKVWDPETETCLHTLQGHTNRVYSLQFDGIHVVS G
SLDTSIRVWDVETGNCIHTLTGHQSLTSGMELKDNILVSGNADSTVKIWDIKTGQCLQTLQGPSKHQSAV
TCLQFNKNFVITSSDDGTVKLWDLKTGEFIRNLVTLESGSGGVWRIRASNTKL VCAVGSRNGTEETKL
LVLDFDVKM
  
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9004_e11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001177773

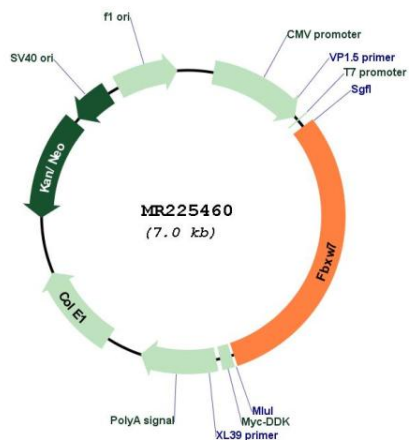
ORF Size: 2130 bp

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:	<ol style="list-style-type: none">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:	<u>NM_001177773.1, NP_001171244.1</u>
RefSeq Size:	4183 bp
RefSeq ORF:	2133 bp
Locus ID:	50754
UniProt ID:	<u>Q8VBV4</u>
Cytogenetics:	3 37.7 cM
MW:	80.3 kDa
Gene Summary:	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]

Product images:



Circular map for MR225460