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Product datasheet for MC220782

Fbxw7 (NM_001177773) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fbxw7 (NM_001177773) Mouse Untagged Clone
Tag:	Tag Free
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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Fully Sequenced ORF:

>MC220782 representing NM_001177773
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAATCAGGAACTGCTCTCTGTGGGCAGCAAAAGACGACGAACTGGAGGCTCTCTGAGAGGGAATGCTT
CCTCAAGCCAGGTTGATGAGGGACAGATGAATCGCGTGGTTGAGGAGGATCCACAGCAGCAAGCGAGACA
TCAAGAGGAGGAGCACACTGCGCGGAATGGTGAACTTGTGGGTGCAAACCCTAGGCCTGGAGACCAGAAC
GATACCCAGCAAGGACAAGTGGAGGAAAATAATAACCGCTTTATTTCAGTAGATGAGGACTCTTCGGGAA
ATCAGGAAGAGCAAGAGGAAGATGAAGAGCATGCTGGGGAACAGGAGGAGGAAGAGGAGGAAGAGGAAGA
GGAGGAGGAGATGGACCAGGAGAGTGATGATTTTGATCCGTCTGATGACAGTAGCAGAGAAGATGAACAT
ACGCACAATAGCAATGTCACAAACTGCAGTAGTGTCTCGGACCTGCCCGCTCACCAGCTCTCCTCTCCAT
TCTATACAAAGACAACAAAAATGAAAAGAAAGTTGGACCATGGTTCTGAAGTTCGTTCCTTTTCTTTGGG
AAAGAAACCATGCAAAGTCTCAGATTATACCAGTACCACTGGCCTTGTACCATGTTCAGCAACACCAACA
ACTTTTGGGGACCTGAGAGCAGCCAATGGGCAAGGGCAGCAGCGGCGGAGGATTACATCTGTCCAACCAC
CCACAGGCCTTCAAGAGTGGCTGAAAATGTTTCAGAGCTGGAGCGGACCAGAGAAGTTGCTGGCTTTAGA
TGAGCTCATTGACAGCTGTGAACCAACACAAGTGAAGCATATGATGCAAGTGATAGAGCCCCAGTTCCAG
CGAGACTTCATCTCCTTGCTTCCTAAAGAGTTGGCACTCTATGTGCTTTCATTCCTGGAACCCAAAGACC
TGCTGCAAGCGGCTCAGACTTGTCGATACTGGAGAATTTTGGCTGAGGATAACCTTCTCTGGAGAGAGAA
ATGTAAAGAAGAGGGGATTGATGAACCGTTGCACATCAAGAGAAGAAAAATAATAAAACCAGGTTTCATA
CACAGCCCATGGAAGAGTGCGTATATCAGACAGCACAGAATTGATACAAACTGGAGACGAGGAGAACTCA
AATCTCCTAAGGTGCTGAAAGGGCATGATGACCATGTGATCACATGCCTACAGTTTTGTGGCAACCGCAT
AGTTAGTGGTTCTGATGACAACACTTTAAAAGTTTGGTCAGCGGTCACGGGCAAGTGTCTGAGAACGTTA
GTGGGACATACAGGTGGAGTGTGGTCATCACAGATGAGAGACAATATCATCATCAGTGGATCGACTGACC
GGACTCTCAAAGTGTGGAATGCTGAAACTGGAGAGTGTATACATACTTTATATGGGCACACTTCTACTGT
ACGGTGTATGCATCTCCATGAAAAAAGGGTTGTAAGCGGTTCTCGAGATGCCACTCTCAGGGTTTGGGAT
ATTGAGACCGGCCAGTGTTTACACGTCCTGATGGGTCACGTAGCAGCGGTCCGCTGCGTTCAGTATGATG
GCAGGAGGGTTGTTAGTGGAGCTTATGATTTTATGGTGAAGGTGTGGGATCCAGAGACTGAGACCTGTCT
ACACACGTTACAGGGACACACTAATAGAGTCTATTCATTACAGTTTGATGGCATCCATGTGGTGAGTGGA
TCTCTTGATACATCAATCCGAGTCTGGGATGTGGAGACAGGGAATTGTATTCACACGCTAACAGGACACC
AGTCATTAACGAGTGGAATGGAACTCAAAGACAATATTCTTGTCTCTGGGAATGCAGATTCTACAGTTAA
GATCTGGGATATCAAAACAGGACAGTGTTTACAAACTTTGCAAGGTCCCAGCAAGCATCAGAGCGCTGTG
ACCTGCTTACAGTTCAACAAGAACTTCGTAATTACCAGCTCAGACGACGGAACGGTCAAACTCTGGGACT
TGAAAACGGGTGAATTTATCCGAAACCTCGTCACATTGGAGAGTGGGGGGAGCGGGGGAGTTGTGTGGCG
GATCAGGGCCTCAAACACAAAGCTGGTGTGTGCAGTCGGGAGTCGGAATGGAACTGAGGAAACCAAGCTC
CTGGTGCTGGACTTTGATGTGGACATGAAATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001177773

Insert Size: 2133 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_001177773.1, NP_001171244.1
RefSeq Size:	4183 bp
RefSeq ORF:	2133 bp
Locus ID:	50754
UniProt ID:	Q8VBV4
Cytogenetics:	3 37.7 cM
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] Transcript Variant: This variant (2) lacks an internal exon in the 5' UTR, as compared to variant 1. Both variants 1 and 2 encode the same isoform 1.