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Product datasheet for MR224465

Magel2 (NM_013779) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Magel2 (NM_013779) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Magel2
Synonyms:	Mage-l2; NDNL1; nM15; ns7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR224465 representing NM_013779, codon optimized.
Due to the complexity of NM_013779, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCCAGCTTTCCACCAACCTGGGTGATTCATCACCTCCGGAATCACCAGTGCCCGCAGTCCACTCCA
GGCCCACAGTACTGATGCGGGCTCCTCCCGCTAGTTCAAGGGCTCCTCCTGTCCCGTGGGATCCTCCCCC
CGTTGATCTCCAGGCCCCTATGGCTGCATGGCAGGCCCCCCAGCCAGCATGGGAAGCTCCGGAGGGTCAG
CTGCCTGCGCCTGTCGCCCAGCTGGCTCAGCCTCCAGGGCTGGGCGCACCTATGGTTCAGGCGCCCCCTC
TGGGTGGCGGCATGGCTAAACCACCTACTCCAGGAGTCCTGATGGTGCACCAGCCACCCCCTGGCGCGCC
TATGGCTCAGTCAAGCACGCCCGGCGTGCTGATGCTGCACCCTTCTGTGACTGGCGCCCCCCTGGCTCAC
CCCCCCCCACCCGGTACACCCATGACACACCCACCCGGGACATCCATGGCCCATCCCCCTCCTCCTCCGC
CACCTCCGCCTCCCCCCCCACCTCCGGGCACACCCATGACTCACCCACCTCCTCCGGGAACACCTATGGG
ACACCACCCCCCCACCGGGAAATCCGATGACCCACCCCCCTCCTGGCAATCCTATGGTTCACCCCCTCACC
CATGGCGCGCCTATGGTGCATGGAGGTCCCCATGGGACTCCTATGCCACATGTGCCCATCACGGGGACCC
CTATTGCTCAGCAACCGACACCCGGTGTCCTGATGGCGCAGCAGCTTACTCCCGGAGTGCTCATGGTGCA
GCCTCCTGCTCCTGGAGCACCAATGGTGCAGCCCCCCCCTCAGGCTGCCCTCATGACCCAACCAGCCCCA
AGTATAACACCAATGGCAAAGCCTCCTGGACCCGGCGTGGTAATGATACATCCTCCAGGCGCTCGAGGCC
CCATTATTCAGACACCCGTATCCGGCGCTCCTATGGCTCAAACCGTGCTCCCCCCGGGTCAGCCTTTGGC
CACTTGGGCACCACAGGGCCAGCCCCTCATCCTGCAGATCCAAAGCCAGGTCATCCGCGCCCCCCCTCAG
GTGCCCAGCGTTCCCCAGGCACCTCAGGTTCAGCTTGCCACACCTCCTGGATGGCAGGCGACAACGCCAA

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ATTGGCAGGTCACCCCCCAGGGATGGCCGGCTACTCCTCTGACGTGGCAGGCAACACAAGTGACCTGGCA
GGCGCCAACCATTGCATGGCAGGCCACACAGCCAGGCAGGCAGGGGCACTCCACAATCAGGACAGGGCAT
ACACCCATCCGCCCAGGCCCCGCACCGCTCCTGCGGCAGATCCCGCCTATGATCAGGCAAATTCAGCCCG
TCATGAGGCAGGCCCCCCCACTTATTCGCCAGGTGCCAATCCGCCCCGCGCCACATGGGATCGCCAGCCA
GCCTCAGCTGTGGCAGGTGCTCCCTCCACCACCACCTCTGCGGCAGGCCCCCCAGGCACGGCTTCTCCTT
CCACGAGTGCCCGGTACGGGGCAGGTCAGCACGGTCCCTCCTGTTGCCCAGATTCACCTGGTGCCCCAAA
GCGGACCACAGGTTCCCCAAACAGTGCTGCCAGCCCAGCTTAGTATTCCCATCCCTGTACCCCAAGCAGC
CGCCCAGTCCGCCCCCCGCACTGTGCATTGCCCGCCGATCATTTGGCAAGCTCCCAAAGGTCAGGCTCCC
GTCCCTCAGGAACTTCCCGTGCCACAAGAGCTGCCAGTACCCCAGGAGCTGCCCGTTCCCCAGGAGGTGC
CAGTTCCACAGGAGATCCCCGTGCCTCAGGAGATCCCAGTTCCTCAGGAACTGCCAGTACCCCAAGAACT
TCCGGTGCCTCAGGAGCTGCCGGTGCCTCAAGAGCTGCCTGTCCCACAGGAACTTCCTGTCCCTCAGGAG
CTGCCAGTGCCACAGGAGCTGCCCGTACCACAGGAGCTGCCAGTCCCACTGGAGTTCCAGGAGGTCCAAC
AGGCTCAGGCAGTCGGATGGCGCGCTCCTAAAGTCCCACCCCACTTTTGGCAGCCTGTGAGCGCACAAGA
GGCCCAGGAACAAGCAACCCAGATTGCGCACGTGGAACAACAGCAGCCTTTCCAGGGAGCCCCCGCATCC
TCTAAAGCGCTGCAAACCCAACTCCCAACTCACCAAGCCCAGGCCTCCGGCCTCCAGGCGGAGCTGCCTT
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CCTTGCTAACTTTCCTAGGGGCTCCACCAGAAGCAGAATGGCCCCAAGCGGTGAACCGGGTCCATCTTCC
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GGATGTTCATCGGAGCGACCTTTTGTGCCCCCAGGGGCGCAAGCGCGTCCCGCGCATACGTGCCAACGGC
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CAACGCTAGTTCTGCATGCAAATCCGTCCCAGCAATACTGATGGTGGCCGCTGCTGCCCCGCAGGCATCT
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AGCATCTGGAGCCAAAGGAGGACAACTGTGGACATAGGCTGAGTAGCAGAGACTGGAGAGGTCCCCGCAC
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AGCTCAGTGAGATGGTCAATGTGGTCATCCGGGAGTACAAGGACGACTCACTGGACATCATCAACCGCGC
CAATACGAAACTCGAATGCACATTCGGGTGTCAACTCAAGGAGGTTGATACCAAAACGCACACTTACATC
ATAGTTAATAAGATGGCCTACCCACAGTGCAACCTGTTGGCTTCCTATCTGGAACGCCCTAAATTTAGCC
TCCTGATGGTGGTCCTGTCACTCATTTTCATGAAGGGATATTGTATTCGGGAGAATCTGCTCTTCAGCTT
TCTGTTCCAGCTGGGTCTGGATGTACAAGAGACAAGCGGACTCTTTCGAATTACAAAGAAACTGATTACT
AGCGTCTTTGTACGGCATCGATACCTGGAGTACCGACAGATCCCCTTTACTGAGCCTGCTGAGTACGAGC
TTCTCTGGGGCCCCCGAGCGTTTTTGGAGACTAACAGAGTGCACATTCTGAGATTTTTGGCGGCGCTTTA
CGAAAATCAACCTCAAATATGGTCATGTCAGTACCTGGACAGCCTCGCCGAGTTGGAATACAAGGACGCG
AACGCCGCAGCTGAGGAGAGCCATGATTCAGACGACGATGCACACGACCCCACATCCTCCCCTCACCCCC
AC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR224465 representing NM_013779
Red=Cloning site Green=Tags(s)

MSQLSTNLGDSSPPESPVPAVHSRPTVLMRAPPASSRAPPVPWDPPPVDLQAPMAAWQAPQPAWEAPEGQ
LPAPVAQLAQPPGLGAPMVQAPPLGGGMAKPPTPGVLMVHQPPPGAPMAQSSTPGVLMLHPSVTGAPLAH
PPPPGTPMTHPPGTSMAHPPPPPPPPPPPPPGTPMTHPPPPGTPMGHHPPPGNPMTHPPPGNPMVHPLT
HGAPMVHGGPHGTPMPHVPITGTPIAQQPTPGVLMAQQLTPGVLMVQPPAPGAPMVQPPPQAALMTQPAP
SITPMAKPPGPGVVMIHPPGARGPIIQTPVSGAPMAQTVLPPGQPLATWAPQGQPLILQIQSQVIRAPPQ
VPSVPQAPQVQLATPPGWQATTPNWQVTPQGWPATPLTWQATQVTWQAPTIAWQATQPGRQGHSTIRTGH
TPIRPGPAPLLRQIPPMIRQIQPVMRQAPPLIRQVPIRPAPHGIASQPQLWQVLPPPPPLRQAPQARLLL
PRVPGTGQVSTVPPVAQIHLVPQSGPQVPQTVLPAQLSIPIPVPQAAAQSAPRTVHCPPIIWQAPKGQAP
VPQELPVPQELPVPQELPVPQEVPVPQEIPVPQEIPVPQELPVPQELPVPQELPVPQELPVPQELPVPQE
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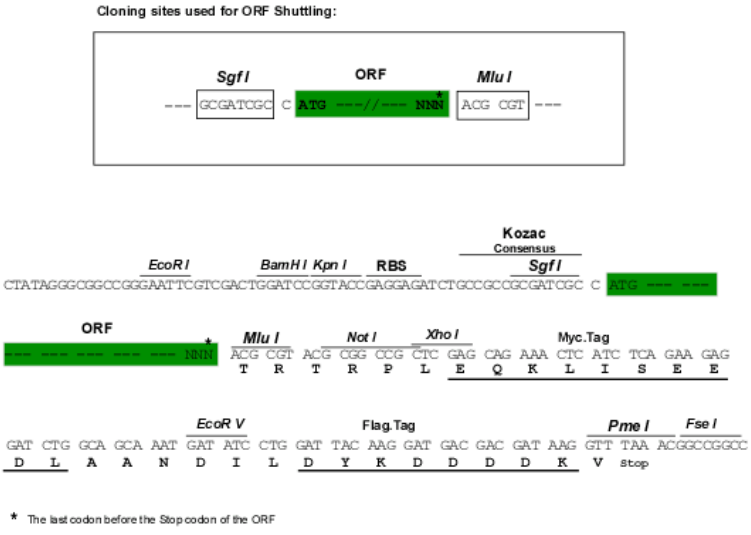
SKALQTQLPTHQAQASGLQAELPSVQLQPSWQGPLPMLQAQPGASATLANFPRGSTRSRMAPSGEPGPSS
LEPRGPPRERRAPARDKKGPPKERMFIGATFCAPRGASASRAYVPTAWKNLPATSETFPATSRVFPSTSH
FQPASSNAFRGPSAASESPKSLPFALQDPYACVEALPAVPWVPYPDGNASSACKSVPAILMVAAAAPQAS
ATAAEASKSSEPPRRPGKATRKKKHLEPKEDNCGHRLSSRDWRGPRTWGNPSHSDWEIQRAMQLLGDRES
LYTPQGLNDWGCPNTSRMPRSLEGPSTSRDQEFCGDSGGSQTWMASEVPSVSRGSSAAQEDPDRESQPLS
PLDERANALVQFLLVKDQAKVPVQLSEMVNVVIREYKDDSLDIINRANTKLECTFGCQLKEVDTKTHTYI
IVNKMAYPQCNLLASYLERPKFSLLMVVLSLIFMKGYCIRENLLFSFLFQLGLDVQETSGLFRITKKLIT
SVFVRHRYLEYRQIPFTEPAEYELLWGPRAFLETNRVHILRFLAALYENQPQIWSCQYLDSLAELEYKDA
NAAAEESHDSDDDAHDPTSSPHPH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



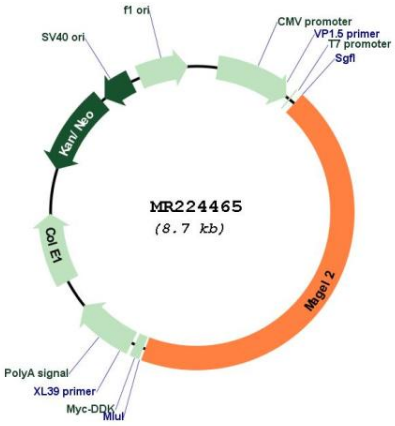
* The last codon before the Stop codon of the ORF

ACCN: NM_013779

ORF Size: 3852 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_013779.2, NP_038807.4
RefSeq Size:	4662 bp
RefSeq ORF:	3855 bp
Locus ID:	27385
UniProt ID:	Q9QZ04
Cytogenetics:	7 34.37 cM
MW:	138 kDa
Gene Summary:	Probably enhances ubiquitin ligase activity of RING-type zinc finger-containing E3 ubiquitin-protein ligases, possibly through recruitment and/or stabilization of the Ubl-conjugating enzyme (E2) at the E3:substrate complex. Acts as a regulator of retrograde transport via its interaction with VPS35. Recruited to retromer-containing endosomes and promotes the formation of 'Lys-63'-linked polyubiquitin chains at 'Lys-220' of WASHC1 together with TRIM27, leading to promote endosomal F-actin assembly (By similarity). Regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-ARNTL/BMAL1 heterodimer. Significantly promotes the cytoplasmic accumulation of CLOCK (PubMed:22208286).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR224465