

## Product datasheet for MR228122

### Magoh (NM\_001282737) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Magoh (NM\_001282737) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Magoh  
**Synonyms:** Mago-m; Mos2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR228122 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAGAGTGACTTTTACCTGCGTTACTACGTGGGCCACAAAGGCAAGTTCGGTCATGAGTTCCTGGAGT  
 TTGAATCCGACCTGACGGTAAATTGCGATACGCCAACACAGCAATTACAAAAATGACGTCATGATCAG  
 GAAAGAGGCTTATGTGCATAAAAGTGTGATGGAAGAGTTAAAGAGAATTATTGATGACAGTGAAATCACC  
 AAAGAAGATGATGCTCTGTGGCCCCCTCCTGATCGCGTGGGCCGGCAGGAGCTTCAAATTGTCATTGGAG  
 ATGAACACATTTCTTTCACAACATCAAAAATTGGTTCCTTATTGATGTCAACCAGTCCAAGGATCCGGA  
 AGGCTTGCAGATTTTTATTATCTGTCCAGGACCTGAAGTGTTAGTCTTCAGTCTGATTGGATTACAC  
 TTCAAGATTAACCAATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR228122 protein sequence  
 Red=Cloning site Green=Tags(s)

MESDFYLRYVGHKGFHEFLEFEPDGLRYANNSNYKNDVMIRKEAYVHKSVMEELEKRIIDDSEIT  
 KEDDALWPPDRVGRQLEIVIGDEHISFTTSKIGSLIDVNQSKDPEGLRVFYLVQDLKCLVFLSLIGLH  
 FKIKPI

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI



**Cloning Scheme:**


**ACCN:** NM\_001282737

**ORF Size:** 441 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.

**RefSeq:** [NM\\_001282737.1](#), [NP\\_001269666.1](#)

**RefSeq Size:** 692 bp

**RefSeq ORF:** 441 bp

**Locus ID:** 17149

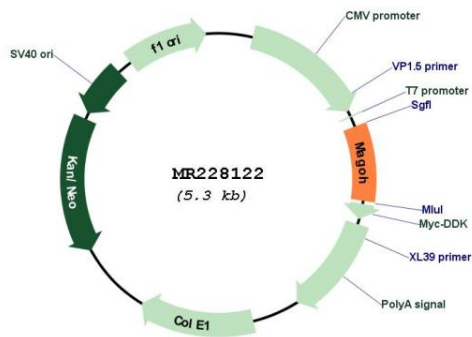
**UniProt ID:** [P61327](#)

**Cytogenetics:** 4 50.18 cM

**MW:** 17.2 kDa

**Gene Summary:** Required for pre-mRNA splicing as component of the spliceosome. Plays a redundant role with MAGOHB as core component of the exon junction complex (EJC) and in the nonsense-mediated decay (NMD) pathway. The EJC is a dynamic structure consisting of core proteins and several peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. The EJC marks the position of the exon-exon junction in the mature mRNA for the gene expression machinery and the core components remain bound to spliced mRNAs throughout all stages of mRNA metabolism thereby influencing downstream processes including nuclear mRNA export, subcellular mRNA localization, translation efficiency and nonsense-mediated mRNA decay (NMD). The MAGOH-RBM8A heterodimer inhibits the ATPase activity of EIF4A3, thereby trapping the ATP-bound EJC core onto spliced mRNA in a stable conformation. The MAGOH-RBM8A heterodimer interacts with the EJC key regulator PYM1 leading to EJC disassembly in the cytoplasm and translation enhancement of EJC-bearing spliced mRNAs by recruiting them to the ribosomal 48S preinitiation complex. Involved in the splicing modulation of BCL2L1/Bcl-X (and probably other apoptotic genes); specifically inhibits formation of proapoptotic isoforms; the function is different from the established EJC assembly.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR228122