

Product datasheet for **MG226200**

Pum2 (NM_001160221) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pum2 (NM_001160221) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pum2
Synonyms:	5730503J23Rik; Pumm2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG226200 representing NM_001160221 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG226200 representing NM_001160221
 Red=Cloning site Green=Tags(s)

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MNHDFQALALESRGMGELLPTKFKWEPDDSTKDGQKGFILGDDEWRETAWGTSHHSMSQPIMVQRRSGQS
FHGNSEVNAILSPRESGGLGVSMVEYVLS SSPADKLD SRFKGTGTRDAETDGPKEGDKGKASPFE
DQNRDLKQDDEDSKINGRGLPNGMDADCKDFNRTPGSRQASPTVEVVERLGPSTNPPEGLGPLNPPTANKP
LVEEFSNPETQNL DAMDQVGLDSLQFDYPGNQVPM DSSGATVGLFDYNSQQQLFQRTSAL TVQQLTAAQQ
QQYALAAAQQPHIAGVFSAGLAPAAFVNPYII SAAPP GTDPYTAAGLAAAATLAGPAVVPPQYYGVPWG
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TRTRPLE - GFP Tag - V

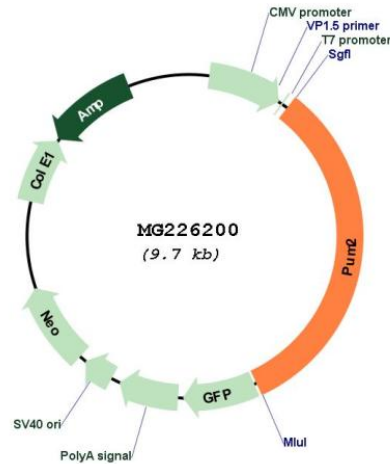
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001160221

ORF Size: 3192 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_001160221.1, NP_001153693.1</u>
RefSeq Size:	6120 bp
RefSeq ORF:	3195 bp
Locus ID:	80913
Cytogenetics:	12 A1.1
Gene Summary:	Sequence-specific RNA-binding protein that acts as a post-transcriptional repressor by binding the 3' UTR of mRNA targets. Binds to an RNA consensus sequence, the Pumilio Response Element (PRE), 5'-UGUANAUA-3', that is related to the Nanos Response Element (NRE). Mediates post-transcriptional repression of transcripts via different mechanisms: acts via direct recruitment of the CCR4-POP2-NOT deadenylase leading to translational inhibition and mRNA degradation. Also mediates deadenylation-independent repression by promoting accessibility of miRNAs. Acts as a post-transcriptional repressor of E2F3 mRNAs by binding to its 3' UTR and facilitating miRNA regulation. Plays a role in cytoplasmic sensing of viral infection. Represses a program of genes necessary to maintain genomic stability such as key mitotic, DNA repair and DNA replication factors. Its ability to repress those target mRNAs is regulated by the lncRNA NORAD (non-coding RNA activated by DNA damage) which, due to its high abundance and multitude of PUMILIO binding sites, is able to sequester a significant fraction of PUM1 and PUM2 in the cytoplasm. May regulate DCUN1D3 mRNA levels. May support proliferation and self-renewal of stem cells. Binds specifically to miRNA MIR199A precursor, with PUM1, regulates miRNA MIR199A expression at a posttranscriptional level (By similarity).[UniProtKB/Swiss-Prot Function]