

## Product datasheet for MC223422

### Pum2 (NM\_030723) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Pum2 (NM_030723) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pum2
Synonyms:	5730503J23Rik; Pumm2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC223422 representing NM_030723 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGAATCATGATTTTCAAGCTCTTGCATTAGAATCTCGGGGAATGGGAGAGCTTTTGCCTACCAAAAAGT  
TTTGGAACTGATGATTCAACAAAAGATGGACAAAAGGCATATTTCTGGGGATGATGAATGGAGAGA  
GACTGCATGGGAACTTCTCATCATTCAATGTCCAGCCTATTATGGTGCAGAGAAGATCTGGACAGAGT  
TTTCATGGAAACAGTGAAGTAAATGCAATTCTTTCTCCAGCTCAGAAAAGTGGAGGCCTTGGTGTGAGCA  
TGGTAGAATATGTATTAAGTTCTCTCCTGCTGATAAATTGGATTCTCGATTTAGGAAGGGAACCTTTGG  
TACTAGAGATGCTGAAACAGATGGACCTGAGAAAGGAGATCAAAAAGGCAAGGCTTCTCCATTTGAGGAG  
GACCAAAACAGAGATCTTAAACAAGATGATGAGGACTCTAAAAATAATGGCAGAGGTTTGCCAAATGGAA  
TGGATGCCGATTGCAAAGATTTAATCGCACTCCTGGAAGTCGCCAAGCCTCTCCAAGTGAAGTAGTTGA  
GCGCCTTGGCCCTAGTACTAATCCCCAGAAGGATTGGGCCCTCTCCTAATCCGACAGCGAATAAACCA  
CTTGTTGAAGAATTTTCAAACCTGAAACTCAGAATCTGGATGCAATGGACCAAGTTGGTCTGGATTCTT  
TACAGTTTGACTATCCTGGTAATCAGTACCCATGGATTCTTCAGGAGCTACTGTAGGCCTTTTTGACTA  
CAATCCCAACAGCAGCTTTTCAGAGGACTAGTGCCTAACAGTTCAGCAGTTAACTGCAGCTCAGCAG  
CAGCAGTATGCATTAGCAGCAGCTCAGCAGCCACATATAGCTGGTGTATTCTCAGCAGGCCTTGCTCCAG  
CTGCATTTGTGCCAAATCCATATATTATTAGTGTCTCCTCCAGGGACTGACCCGTATACTGCAGCAGG  
ATTGGCTGCAGCAGCAACATTAGCAGGTCCAGCAGTGGTTCACCTCAGTATTACGGTGTCCATGGGGA  
GTGTATCCAGCAATTTATTTAGCAACAAGCTGCAGTGCAGGCAAGCAACACAGCAACAGCAAGCAG  
CATCACAAGCTCAGCCTGGACAGCAGCAGGTTCTTCGCTCTGGAGCAGGTGAGCCTCTATTACTCCAAG  
TCAGGGCCAACAAGGGCAGCAAGCAGAGTCACTGCAGCAGCTGCAAACCAACTTTGGCTTTTGGTCAG  
AGTCTTGCTGCAGGCATGCCAGGCTATCAAGTACTAGCTCCAATGCCTATTATGATCAGACTGGTGCCT  
TAGTGGTTGGCCCGGAGCAAGAAGTGGCTTGGAGCTCAGTACGATTAAATGGCTCCAACACCTGTCTT  
AATAAGTTCAACAGCAGCACAAGCTGCAGCAGCAGCAGCAGCAGCTGGAGGAACTGCAAATAGTCTTACA  
GGCAGCACAAATGGTCTGTTTCGGCAATTGGCACTCAGCCACCACAGCAGCAGCAGCAGCAGCAGCAAC



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CAAGCTAACCTGCAGTCTAATTCATTTTATGGGAGCAGCTCTTTGACTAACAGCTCCCAGAGCAGCTCTTTATTCTCTCATGGACCTGGCCAACTGGAAGTGCCTCTTTGGCTTTGGAAGTGGTAGCTCTTTAGGAGCTGCTATAGGCTCAGCTCTCAGTGGATTTGGCTCATCAGTTGGCAGTTCTGCAAGTAGTAGTGCACAAAGGAGAGTCTCTATCTACTAGCTCTGACTTGTACAAAAGATCTAGTAGCAGCCTAGCACCCATAGGGCAACCATTTTACAATAGTCTGGGATTTTCTCCTCTCCAAGTCCAATAGGCATGCCTCTGCCAAGCCAACTCCAGGACATTCACCTACGCCACCGCCATCACTTTCATCACATGGATCCTCATCCAGTTTGCATTTAGGAGACTGACAAACGGTAGTGGTCGGTATATCTCTGCAGCACCTGGAGCAGAAGCAAAGTACCGAAGTGCCTCAAGCACTTCCAGTCTATTTAGCTCCAGCAGCCAGCTCTTCTCCTTCTCGGCTCCGCTATAATAGATCTGACATCATGCCCTCCGGCCGAGTAGGTTATTGGAAGATTTAGGAACAACCGCTTCCCCAACCTTCAGCTCAGAGACTTAATTGGACATATAGTCGAGTTTTCTCAAGACCAGCATGGTTCCAGATTCATACAGCAAAAGCTAGAGAGAGCTACTCCAGCTGAGCGACAAAATAGTATTTAATGAAATCTACAGGCAGCCTATCAATTAATGACAGATGTTTTGGAACTATGTTATACAGAAATTTTTGAGTTTGGAAAGTTGGATCAGAAATTAGCCCTGGCTACTCGTATTCGTGGTCATGTTCTACCATTAGCCTGCAGATGTATGGCTGCCGTGTTATTCAAAGCGTTAGAATCTATTTCTTCTGATCAGCAGGTAATTAGTGAATGGTTAAGGAACTAGATGGCCATGTACTTAAATGTGTGAAAGATCAAAATGGAAACCATGTTGTACAGAAATGCATTGAATGTGTTACAGCCACAGTCACTGCAGTTCATCATCGATGCTTTCAAAGGACAAGTATTTGTGCTTTCAACCCATCCTTATGGCTGCAGAGTCAATTCAGCGTATCTTAGAGCACTGCACGGCAGAGCAGACCTTACCCATCTTAGAAGAATTCACAACACACAGAACAGTTGGTACAGGATCAGTATGGCAATTATGTTATTCAGCATGTACTGGAACATGGTCGACCTGAAGACAAGAGCAAAATGTTTTCCGAAATCAGAGGAAAGGCTTAGCCCTGAGTCAACACAAATTTGCCAGCAATGTAGTAGAAAAGTGTGTTACTCATGCCTCCCGTGCAGAGAGCTTTACTGATTGATGAGGTCTGTGTCAGAATGATGGTCCTCACAGTGCCTTATACACCATGATGAAGGATCAGTATGCCAACTATGTGTTCCAGAAGATGATTGATATGGCTGAGCCTGCCAGAGAAAAGATAATCATGCACAAGATTCGACCTCAATTACTACTCTTCGCAAATACACATATGGGAAGCATATACTGGCCAAGTTGGAAAAATACTATCTGAAAACAGCCAGATCTAGGGCCAATTGGAGGACCACCAAAATGGGATGCTGTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA

<b>Restriction Sites:</b>	SgfI-MluI
<b>ACCN:</b>	NM_030723
<b>Insert Size:</b>	3201 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_030723.2</a> , <a href="#">NP_109648.2</a>
<b>RefSeq Size:</b>	6235 bp

RefSeq ORF: 3201 bp

Locus ID: 80913

UniProt ID: [Q80U58](#)

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]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Both variants 1 and 2 encode the same isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.