

Product datasheet for MC223423

Pum2 (NM_001160219) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pum2 (NM_001160219) 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: >MC223423 representing NM_001160219
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAATCATGATTTTCAAGCTCTTGCAATTAGAATCTCGGGGAATGGGAGAGCTTTTGCTACCAAAAAGT
 TTTGGAACTGATGATTCAACAAAAGATGGACAAAAGGCATATTTCTGGGGATGATGAATGGAGAGA
 GACTGCATGGGAACTTCTCATCATTCAATGTCCAGCCTATTATGGTGCAGAGAAGATCTGGACAGAGT
 TTTTCATGGAAACAGTGAAGTAAATGCAATTCTTTCTCCAGCTCAGAAAAGTGGAGGCCTTGGTGTGAGCA
 TGGTAGAATATGTATTAAGTTCTCTCCTGCTGATAAAATTGGATTCTCGATTTAGGAAGGGAACCTTTGG
 TACTAGAGATGCTGAAACAGATGGACCTGAGAAAGGAGATCAAAAAGGCAAGGCTTCTCCATTTGAGGAG
 GACCAAAACAGAGATCTTAAACAAGATGATGAGGACTCTAAAAATAATGGCAGAGGTTTGCCAAATGGAA
 TGGATGCCGATTGCAAAGATTTAATCGCACTCCTGGAAGTCGCCAAGCCTCTCCAAGTGAAGTAGTTGA
 GCGCCTTGGCCCTAGTACTAATCCCCAGAAGGATTGGGCCCTCTCCTAATCCGACAGCGAATAAACCA
 CTTGTTGAAGAATTTTCAAACCTGAAACTCAGAATCTGGATGCAATGGACCAAGTTGGTCTGGATTCTT
 TACAGTTTGACTATCCTGGTAATCAGTACCCATGGATTCTTCAGGAGCTACTGTAGGCCCTTTTGGACTA
 CAATCCCAACAGCAGCTCTTTTCAGAGGACTAGTGCCTAACAGTTCAGCAGTTAACTGCAGCTCAGCAG
 CAGCAGTATGCATTAGCAGCAGCTCAGCAGCCACATATAGCTGGTGTATTCTCAGCAGGCCTTGCTCCAG
 CTGCATTTGTGCCAAATCCATATATTATTAGTGTCTCCTCCAGGGACTGACCCGTATACTGCAGCAGG
 ATTGGCTGCAGCAGCAACATTAGCAGGTCCAGCAGTGGTTCACCTCAGTATTACGGTGTCCATGGGGA
 GTGTATCCAGCAATTTATTTTCAGCAACAAGCTGCAGCTGCGGCAAGCAACACAGCAACAGCAAGCAG
 CATCACAAGCTCAGCCTGGACAGCAGCAGGTTCTTCGTCTGGAGCAGGTGAGCCTCTATTACTCCAAG
 TCAGGGCCAACAAGGGCAGCAAGCAGAGTCACTGCAGCAGCTGCAAACCAACTTTGGCTTTTGGTCAG
 AGTCTTGCTGCAGGCATGCCAGGCTATCAAGTACTAGCTCCAATGCCTATTATGATCAGACTGGTGCCT
 TAGTGGTTGGCCCGGAGCAAGAACTGGCTTGGAGCTCAGTACGATTAAATGGCTCCAACACCTGTCTT
 AATAAGTTCAACAGCAGCACAAGCTGCAGCAGCAGCAGCAGCAGCTGGAGGAACTGCAAATAGTCTTACA
 GGCAGCACAAATGGTCTGTTTCGGCCAATTGGCACTCAGCCACCACAGCAGCAGCAGCAGCAGCAGCAAC



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CAAGCTAACCTGCAGTCTAATTCATTTTATGGGAGCAGCTCTTTGACTAACAGCTCCCAGAGCAGCTC
 TTTATTCTCTCATGGACCTGGCCAACTGGAAGTGCCTCTTTGGCTTTGGAAGTGGTAGCTCTTTAGGA
 GCTGCTATAGGCTCAGCTCTCAGTGGATTTGGCTCATCAGTTGGCAGTTCTGCAAGTAGTAGGCCAA
 GGAGAGAGTCTCTACTAGCTCTGACTTGTACAAAAGATCTAGTAGCAGCCTAGCACCCATAGGGCA
 ACCATTTACAATAGTCTGGGATTTTCTCCTCTCCAAGTCCAATAGGCATGCCTCTGCCAAGCCAACT
 CCAGGACATTCACCTACGCCACCGCCATCACTTTCATCACATGGATCCTCATCCAGTTTGCATTTAGGAG
 GACTGACAAACGGTAGTGGTCGGTATATCTCTGCAGCACCTGGAGCAGAAGCAAAGTACCGAAGTGCCTC
 AAGCACTTCCAGTCTATTTAGCTCCAGCAGCCAGCTCTTCTCCTTCTCGGCTCCGCTATAATAGATCT
 GACATCATGCCCTCCGGCCGAGTAGGTTATTGGAAGATTTAGGAACAACCGCTTCCCCAACCTTCAGC
 TCAGAGACTTAATTGGACATATAGTCGAGTTTTCTCAAGACCAGCATGGTTCCAGATTCATACAGAAAA
 GCTAGAGAGAGCTACTCCAGCTGAGCGACAAAATAGTATTTAATGAAATCTACAGGCAGCCTATCAATTA
 ATGACAGATGTTTTGGAACTATGTTATACAGAAATTTTTGAGTTTGGAAAGTTGGATCAGAAATTAG
 CCCTGGCTACTCGTATTCGTGGTCATGTTCTACCATTAGCCTTGCAGATGTATGGCTGCCGTGTTATTCA
 AAAGCGTTAGAATCTATTTCTTCTGATCAGCAGGTAATTAGTGAATGGTTAAGGAACTAGATGGCCAT
 GTACTTAAATGTGTAAAGATCAAAATGGAACCATGTTGTACAGAAATGCATTGAATGTGTTACGCCAC
 AGTCACTGCAGTTCATCATCGATGCTTTCAAAGGACAAGTATTTGTGCTTTCAACCCATCCTTATGGCTG
 CAGAGTCAATTCAGCGTATCTTAGAGCACTGCACGGCAGAGCAGACCTTACCCATCTTAGAAGAATTCAC
 CAACACACAGAACAGTTGGTACAGGATCAGTATGGCAATTATGTTATTCAGCATGTACTGGAACATGGTC
 GACCTGAAGACAAGAGCAAAATGTTTTCCGAAATCAGAGGAAAGGCTTAGCCCTGAGTCAACACAAATT
 TGCCAGCAATGTAGTAGAAAAGTGTGTTACTCATGCCTCCCGTGCAGAGAGCTTTACTGATTGATGAG
 GTCTGTGTCAGAATGATGGTCCTCACAGTGCCTTATACACCATGATGAAGGATCAGTATGCCAACTATG
 TGGTTCAGAAGATGATTGATGGCTGAGCCTGCCAGAGAAAAGATAATCATGCACAAGATTCGACCTCA
 TATTACTCTTCGCAAATACACATATGGGAAGCATATACTGGCCAAGTTGGAATAACTATCTGAAA
 AACAGCCCAGATCTAGGGCCAATTGGAGGACCACCAAAATGGGATGCTGTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

SgfI-MluI

ACCN:

NM_001160219

Insert Size:

3201 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_001160219.1, NP_001153691.1

RefSeq Size:

6311 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 (1) represents the longest transcript. Both variants 1 and 2 encode the same isoform (1).