

Product datasheet for MC223420

Pum2 (NM_001160220) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pum2 (NM_001160220) 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:	>MC223420 representing NM_001160220 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGAATCATGATTTTCAAGCTCTTGCAATTAGAATCTCGGGGAATGGGAGAGCTTTTGCTACCAAAAAGT
TTTGGAACTGATGATTCAACAAAAGATGGACAAAAGGCATATTTCTGGGGATGATGAATGGAGAGA
GACTGCATGGGAACTTCTCATCATTCAATGTCCAGCCTATTATGGTGCAGAGAAGATCTGGACAGAGT
TTTCATGGAAACAGTGAAGTAAATGCAATTCTTTCTCCAGCTCAGAAAAGTGGAGGCCTTGGTGTGAGCA
TGGTAGAATATGTATTAAGTTCCTCTCCTGCTGATAAATTGGATTCTCGATTTAGGAAGGGAACCTTTGG
TACTAGAGATGCTGAAACAGATGGACCTGAGAAAGGAGATCAAAAAGGCAAGGCTTCTCCATTTGAGGAG
GACCAAAACAGAGATCTTAAACAAGATGATGAGGACTCTAAAAATAATGGCAGAGGTTTGCCAAATGGAA
TGGATGCCGATTGCAAAGATTTAATCGCACTCCTGGAAGTCGCCAAGCCTCTCCAAGTGAAGTAGTTGA
GCGCCTTGGCCCTAGTACTAATCCCCAGAAGGATTGGGCCCTCTCCTAATCCGACAGCGAATAAACCA
CTTGTTGAAGAATTTTCAAACCTGAAACTCAGAATCTGGATGCAATGGACCAAGTTGGTCTGGATTCT
TACAGTTTGACTATCCTGGTAATCAGTACCCATGGATTCTTCAGGAGCTACTGTAGGCCCTTTTGGACTA
CAATCCCAACAGCAGCTCTTTAGAGGACTAGTGCCTAACAGTTCAGCAGTTAACTGCAGCTCAGCAG
CAGCAGTATGCATTAGCAGCAGCTCAGCAGCCACATATAGCTGGTGTATTCTCAGCAGGCCTTGCTCCAG
CTGCATTTGTGCCAAATCCATATATTATTAGTGTCTCCTCCAGGGACTGACCCGTATACTGCAGCAGG
ATTGGCTGCAGCAGCAACATTAGCAGGTCCAGCAGTGGTTCACCTCAGTATTACGGTGTCCATGGGGA
GTGTATCCAGCAATTTATTTAGCAACAAGCTGCAGTGCAGCAAGCAACACAGCAACAGCAAGCAG
CATCACAAGCTCAGCCTGGACAGCAGCAGGTTCTTCGCTCTGGAGCAGGTGAGCCTCTATTACTCCAAG
TCAGGGCCAACAAGGGCAGCAAGCAGAGTCACTGCAGCAGCTGCAAACCAACTTTGGCTTTTGGTCAG
AGTCTTGCTGCAGGCATGCCAGGCTATCAAGTACTAGCTCCAATGCCTATTATGATCAGACTGGTGCCT
TAGTGGTTGGCCCGGAGCAAGAACTGGCTTGGAGCTCAGTACGATTAAATGGCTCCAACACCTGTCTT
AATAAGTTCAACAGCAGCACAAGCTGCAGCAGCAGCAGCAGCAGCTGGAGGAACTGCAAATAGTCTTACA
GGCAGCACAAATGGTCTGTTTCGGCAATTGGCACTCAGCCACCACAGCAGCAGCAGCAGCAGCAGCAAC



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CAAGCTAACCTGCAGTCTAATTCATTTTATGGGAGCAGCTCTTTGACTAACAGCTCCCAGAGCAGCTC
 TTTATTCTCTCATGGACCTGGCCAACTGGAAGTGCCTCTTTGGCTTTGGAAGTGGTAGCTCTTTAGGA
 GCTGCTATAGGCTCAGCTCTCAGTGGATTTGGCTCATCAGTTGGCAGTTCTGCAAGTAGTAGGCCAAA
 GGAGAGAGTCTCTACTAGCTCTGACTTGTACAAAAGATCTAGTAGCAGCCTAGCACCCATAGGGCA
 ACCATTTTACAATAGTCTGGGATTTTCTCCTCTCCAAGTCCAATAGGCATGCCTCTGCCAAGCCAACT
 CCAGGACATTCACCTACGCCACCGCCATCACTTTCATCACATGGATCCTCATCCAGTTTGCATTTAGGAG
 GACTGACAAAACGGTAGTGGTCGGTATATCTCTGCAGCACCTGGAGCAGAAGCAAAGTACCGAAGTGCCTC
 AAGCATTCCAGTCTATTTAGCTCCAGCAGCCAGCTCTTCTCCTTCTCGGCTCCGCTATAATAGATCT
 GACATCATGCCCTCCGGCCGAGTAGGTTATTGGAAGATTTAGGAACAACCGCTTCCCCAACCTTCAGC
 TCAGAGACTTAATTGGACATATAGTCGAGTTTTCTCAAGACCAGCATGGTTCCAGATTCATACAGAAAA
 GCTAGAGAGAGCTACTCCAGCTGAGCGACAAAATAGTATTTAATGAAATCTACAGGCAGCCTATCAATTA
 ATGACAGATGTTTTGGAACTATGTTATACAGAAATTTTTGAGTTTGGAAAGTTGGATCAGAAATTAG
 CCCTGGCTACTCGTATTCGTGGTCATGTTCTACCATTAGCCTGCAGATGTATGGCTGCCGTGTTATTCA
 AAAGCGTTAGAATCTATTTCTCTGATCAGCAGAGTGAATGGTTAAGGAACTAGATGGCCATGTA
 AAATGTGTGAAAGATCAAAATGGAACCATGTTGTACAGAAATGCATTGAATGTGTTTCAGCCACAGT
 TGCAAGTTCATCATCGATGCTTCAAGGACAAGTATTTGTGCTTCAACCCATCCTTATGGCTGCAGAGT
 CATTTCAGCGTATCTTAGAGCACTGCACGGCAGAGCAGACCTTACCCATCTTAGAAGAAGTTCACCAACAC
 ACAGAACAGTTGGTACAGGATCAGTATGGCAATTATGTTATTCAGCATGTACTGGAACATGGTCGACCTG
 AAGACAAGAGCAAAATGTTTCCGAAATCAGAGGAAAGTCTTAGCCCTGAGTCAACACAAAATTTGCCAG
 CAATGTAGTAGAAAAGTGTGTTACTCATGCCTCCCGTGCAGAGAGCTTACTGATTGATGAGGCTGC
 TGTCAGAAATGATGGTCTCACAGTGCCTTATACACCATGATGAAGGATCAGTATGCCAATATGTGGTTC
 AGAAGATGATTGATGGCTGAGCCTGCGCAGAGAAAGATAATCATGCACAAGATTCGACCTCATATTAC
 TACTCTTCGAAAATACACATATGGGAAGCATATACTGGCCAAGTTGAAAAATACTATCTGAAAAACAGC
 CCAGATCTAGGGCCAATTGGAGGACCACCAATGGGATGCTGTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

Sgfl-MluI

ACCN:

NM_001160220

Insert Size:

3195 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_001160220.1, NP_001153692.1

RefSeq Size:

6305 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]

Transcript Variant: This variant (3) uses an alternate in-frame donor splice site in the 3' coding region compared to variant 1. This results in an isoform (2) lacking 2 aa compared to isoform 1. Variants 3 and 4 encode the same isoform.