

Product datasheet for MR226200

Pum2 (NM_001160221) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pum2 (NM_001160221) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Pum2
Synonyms: 5730503J23Rik; Pumm2
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR226200 representing NM_001160221
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAATCATGATTTTCAAGCTCTTGCAATTAGAATCTCGGGGAATGGGAGAGCTTTTGCTACCAAAAAGT
 TTTGGAACTGATGATTCAACAAAAGATGGACAAAAGGCATATTTCTGGGGATGATGAATGGAGAGA
 GACTGCATGGGAACTTCTCATCATTCAATGTCCAGCCTATTATGGTGCAGAGAAGATCTGGACAGAGT
 TTTTCATGGAAACAGTGAAGTAAATGCAATTCTTTCTCCAGCTCAGAAAAGTGGAGGCCTTGGTGTGAGCA
 TGGTAGAATATGTATTAAGTTCTCTCCTGCTGATAAAATTGGATTCTCGATTTAGGAAGGGAACCTTTGG
 TACTAGAGATGCTGAAACAGATGGACCTGAGAAAGGAGATCAAAAAGGCAAGGCTTCTCCATTTGAGGAG
 GACCAAAACAGAGATCTTAAACAAGATGATGAGGACTCTAAAAATAATGGCAGAGGTTTGCCAAATGGAA
 TGGATGCCGATTGCAAAGATTTAATCGCACTCCTGGAAGTCGCCAAGCCTCTCCAAGTGAAGTAGTTGA
 GCGCCTTGGCCCTAGTACTAATCCCCAGAAGGATTGGGCCCTCTCCTAATCCGACAGCGAATAAACCA
 CTTGTTGAAGAATTTTCAAACCTGAAACTCAGAATCTGGATGCAATGGACCAAGTTGGTCTGGATTCTT
 TACAGTTTGACTATCCTGGTAATCAGTACCCATGGATTCTTCAGGAGCTACTGTAGGCCTTTTTGACTA
 CAATCCCAACAGCAGCTCTTTAGAGGACTAGTGCCTAACAGTTACAGAGTTAACTGCAGCTCAGCAG
 CAGCAGTATGCATTAGCAGCAGCTCAGCAGCCACATATAGCTGGTGTATTCTCAGCAGGCCTTGCTCCAG
 CTGCATTTGTGCCAAATCCATATATTATTAGTGTCTCCTCCAGGGACTGACCCGTATACTGCAGCAGG
 ATTGGCTGCAGCAGCAACATTAGCAGGTCCAGCAGTGGTTCACCTCAGTATTACGGTGTCCATGGGGA
 GTGTATCCAGCAATTTATTTAGCAACAAGCTGCAGCTGCGGCAAGCAACACAGCAACAGCAAGCAG
 CATCACAAGCTCAGCCTGGACAGCAGCAGGTTCTTCGCTCTGGAGCAGGTGAGCCTCTATTACTCCAAG
 TCAGGGCCAACAAGGGCAGCAAGCAGAGTCACTGCAGCAGCTGCAAACCAACTTTGGCTTTTGGTCAG
 AGTCTTGCTGCAGGCATGCCAGGCTATCAAGTACTAGCTCCAATGCCTATTATGATCAGACTGGTGCCT
 TAGTGGTTGGCCCGGAGCAAGAACTGGCTTGGAGCTCAGTACGATTAAATGGCTCCAACACCTGTCTT
 AATAAGTTCAACAGCAGCACAAGCTGCAGCAGCAGCAGCAGCAGCTGGAGGAACTGCAAATAGTCTTACA
 GGCAGCACAATGGTCTGTTTCGGCAATTGGCACTCAGCCACCACAGCAGCAGCAGCAGCAGCAGCAAC



[View online »](#)

CAAGCTAACCTGCAGTCTAATTCATTTTATGGGAGCAGCTCTTTGACTAACAGCTCCCAGAGCAGCTC
 TTTATTCTCTCATGGACCTGGCCAACTGGAAGTGCCTCTTTGGCTTTGGAAGTGGTAGCTCTTTAGGA
 GCTGCTATAGGCTCAGCTCTCAGTGGATTTGGCTCATCAGTTGGCAGTTCTGCAAGTAGTAGTGCACAA
 GGAGAGAGTCTCTATCTACTAGCTCTGACTTGTACAAAAGATCTAGTAGCAGCCTAGCACCCATAGGGCA
 ACCATTTTACAATAGTCTGGGATTTTCTCCTCTCCAAGTCCAATAGGCATGCCTCTGCCAAGCCAACT
 CCAGGACATTCACCTACGCCACCGCCATCACTTTCATCACATGGATCCTCATCCAGTTTGCATTTAGGAG
 GACTGACAAACGGTAGTGGTCGGTATATCTGCAGCACCTGGAGCAGAAGCAAAGTACCGAAGTGCCTT
 AAGCAGCTTCCAGTCTATTTAGCTCCAGCAGCCAGCTCTTCTCCTTCTCGGCTCCGCTATAATAGATCT
 GACATCATGCCCTCCGGCCGAGTAGGTTATTGGAAGATTTAGGAACAACCGCTTCCCCAACCTTCAGC
 TCAGAGACTTAATTGGACATATAGTCGAGTTTTCTCAAGACCAGCATGGTTCAGATTTCATACAGAAAA
 GCTAGAGAGAGCTACTCCAGCTGAGCGACAAAATAGTATTTAATGAAATCTACAGGCAGCCTATCAATTA
 ATGACAGATGTTTTGGAACTATGTTATACAGAAATTTTTGAGTTTGGAAATTTGGATCAGAAATAG
 CCCTGGCTACTCGTATTCGTGGTCATGTTCTACCATTAGCCTGCAGATGTATGGCTGCCGTGTTATTCA
 AAAGCGTTAGAATCTATTTCTCTGATCAGCAGAGTGAATGGTTAAGGAACTAGATGGCCATGTA
 AAATGTGTGAAAGATCAAAATGAAACCATGTTGTACAGAAATGCATTGAATGTGTTAGCCACAGTCAC
 TGCAAGTTCATCATCGATGCTTCAAGGACAAGTATTTGTGCTTCAACCCATCCTTATGGCTGCAGAGT
 CATTACAGCGTATCTTAGAGCACTGCACGGCAGAGCAGACCTTACCCATCTTAGAAGAAGTTCACCAACAC
 ACAGAACAGTTGGTACAGGATCAGTATGGCAATTATGTTATTCAGCATGTACTGGAACATGGTCGACCTG
 AAGACAAGAGCAAAATGTTTCCGAAATCAGAGGAAAGGCTTAGCCCTGAGTCAACACAAATTTGCCAG
 CAATGTAGTAGAAAAGTGTGTTACTCATGCCTCCCGTGCAGAGAGCTTACTGATTGATGAGGCTGC
 TGTCAGAATGATGGTCTCACAGTGCCTTATACACCATGATGAAGGATCAGTATGCCAATATGTGGTTC
 AGAAGATGATTGATATGGCTGAGCCTGCGCAGAGAAAGATAATCATGCACAAGATTCGACCTCATATTAC
 TACTCTTCGAAAATACACATATGGGAAGCATATACTGGCCAAGTTGAAAAAATACTATCTGAAAAACAGC
 CCAGATCTAGGGCCAATTGGAGGACCACCAATGGGATGCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR226200 representing NM_001160221

Red=Cloning site Green=Tags(s)

MNHDFQALALESRGMGELLPTKFWPDDSTKDGQKGFILGDDEWRETAWGTSHHSMSQPIMVQRRSGQS
 FHGNSEVNAILSPRESGGLGVSMVEYVLS SSPADKLD SFRKGTGTRDAETDGPEKGDQK GKASPFEE
 DQNRDLKQDDEDSKINGRGLPNGMDADCKDFNRTPGSRQASPTVEVVERLGPSTNPPEGLGPLNPTANKP
 LVEEFSNPETQNL DAMDQVGLDSLQFDYPGNQVPM DSSGATVGLFDYNSQQQLFQRTSAL TVQQLTAAQQ
 QQYALAAAQQPHIAGVFSAGLAPAAFVNPYII SAAPPGTDPYTAAGLAAAATLAGPAVVPQQYGVVWPW
 VYPANLFQQQAAAAASNTANQQAASQAQPGQQQVLRPGAGQRPITPSQGGQQQAE S LAAAANPTLAFGQ
 SLAAGMPGYQVLA PTAYYDQTGALVVGPGARTGLGAPVRLMAPTPVLI SSTAQAAAAAAAAGGTANSLT
 GSTNGLFRPIGTQPPQQQQQQPSTNLQSN SFYGS SSSL TNSSQS S S L F SHGPGQPGSASLGF GSGSSLG
 AAI G SALSGFGSSVGS SASSATRRESLSTSSDLYKRSSSLAPIGQPFYNSLGFSSSPSIGMPLPSQT
 PGHSLTPPPSLSSHGSSSLHLLGGLTNGSGRYISAAPGAEAKYRSASSTSSLFSSSSQLFPPSRLRYNRS
 DIMP SGRSRLLED FRNRFNQLRDLIGHIVEFSQDQHGSRFIQKLERATPAERQIVFNEILQAAYQL
 MTDVFGNYVIQKFF EFGSLDQKLALATRIRGHVLPALQMYGCRVIQKALESISSDQQSEMVKELDGHVL
 KCVKDQNGNHVVQKCI ECVPQSLQFIIDAFKGVFVLS THPYGCRVIQRILEHCTAEQTLPILEELHQH
 TEQLVQDQYGNVIQHVLEHGRPEDKSKIVSEIRGKVLALS QHKFASNVVEKCVTHASRAERALL IDEVC
 CQNDGPHSALYTMKQDYANYVVQK MIDMAEPAQRKIIMHKIRPHITTLRKYTYGKHILAKLEKYLLKNS
 PDLGPIGGPPNGML

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

| | |
|-------------------------------|--|
| 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 |
| MW: | 114.6 kDa |
| 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] |