

Product datasheet for MR218109

Pum1 (NM_001159605) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pum1 (NM_001159605) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pum1
Synonyms:	AA517475; mKIAA0099; Pumm
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR218109 representing NM_001159605 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCGTTGCATGTGTCTTGAAGAGAAAAGCAGTGCTTTGGCAGGACTCTTTCAGCCCCACCTGAAAC
ATCACCTCAAGAACCAGCTAATCCCAACATGCCTGTTGTTTGGACATCTGGAACAGGGTCGCAAGCGCA
GCCACAGCCAGCTGCAAATCAGGCTCTTGCAGCTGGAACACACTCCAGCCCTGTCCAGGATCCATAGGA
GTTGCAGGCCGTTCCAGGACGACGCTATGGTGGACTACTTCTTTCAGAGGCAGCATGGTGAGCAGCTTG
GGGAGGAGGAAGTGGTGGAGGCGCTATAATACTAGCAAACATCGATGGCTACAGGGGATAACATTCA
TGCAAGAACACCAGGTACGCTCTATGGATGAATTGAATCATGATTTTCAAGCACTTGCTCTGGAAGGGAGA
GCTATGGGCGAGGGCCAAAGGATGCAGACAGTATGAAAACGACAAAGGTGAAAAGAAGAACAAGGGTA
CGTTTGATGGAGATAAGCTAGGAGATTTGAAGGAGGAGGGAGATGTGATGGACAAGACCAATGGTTTGCC
AGTGCAGAATGGGATTGATGCAGACGTCAAAGATTTTAGCCGTACCCCTGGTAATTGCCAGAACTCTGCT
AATGAAGTGGATCTTCTGGGTCCAACCCAGAATGGTCTGAGGGCTTAGCCAGCTGACCAGCACCATG
GTGCCAAGCCTGTGGAGGATTTCTCAACATGGAGTCCCAGAGTGTCCCCTGGACCCATGGAACATGT
GGGCATGGAGCCTCTGCAGTTTGATTATCAGGCACGCAGGTACCTGTGGACTCTGCAGCAGCAACTGTG
GGACTTTTTGACTACAATTCTCAACAACAGCTATTCCAAGACCCAATGCACCTTGTCTTTCAGCAGTTGA
CAGCTGCCAGCAGCAGCAGTATGCACTTGCAGCAGCCACCAGCCTCACATCGGTTTAGCTCCCGCTGC
GTTTGTCCCCAACCCATACATCATCAGCGCTGCTCCCCAGGGACGGACCCCTACACAGCTGGATTGGCT
GCAGCAGCGACTCGGCCAGCTGTGGTCCCTCACCAATATTATGGAGTCACGCCATGGGGTGTCTACC
CTGCCAGTCTCTCCAGCAGCAGGCAGCTGCAGCTGCAGCAGCTACAACTCTGCTACTCAGCAGAGCGC
TCCGCAGGCCAGCAGGGACAGCAGCAGGTTCTTCGTGGAGGAGCTAGCCAACGTCCTTTGACCCCAAT
CAGAACCAGCAGGGACAACAACAGATCCCCTGTAGCAGCTGCAGCAGTGAATTCTGCTTGTGCTTTG
GACAAGGATTGGCTGCAGGTATGCCAGGTTATCCAGTCTTGGCACCTGCTGCTTACTATGACCAACTGG
TGCCCTTGTGGTGAATGCAGGGCAAGAAATGGCTCGGAGCTCCAGTCCGGCTTGTGCTCCAGCCCCA



[View online >](#)

GTCATCATTAGCTCCTCAGCTGCACAAGCAGCTGTTGCAGCGGCTGCAGCGTCAGCAAACGGAGCAGCTG
 GTGGTCTTGCCGGAACACAAATGGACCATTTTCGACCTTTAGGCACCCAGCAGCCCCAGCCCCAGCCTCA
 GCAGCAGCCAGTAACAATCTGGCTTCCAGCTCTTTCTATGGCAACAACCTCTGAGCAGTAACCTCCAG
 AGCAGCTCCCTCTTCTCAGGGCTCTGCACAGCTGCCAACACGCTCCTTGGGATTCGGAAGCAGCAGTT
 CCCTTGGTGCCACCCTGGGATCGGCCCTGGAGGGTTGGAACAGCAGTTGCAAACCTCAACACTGGCAG
 TGGCTCCCGCCGTGACTCCCTGACTGGCAGCAGTGACCTTTATAAGAGGACATCGAGCAGCTTGGCCCC
 ATTGGACACAGTTTTTATAGCAGCCTTAGCTATTCTCCTCTCCTGGACCCGTGGGATGCCTCTCCCTA
 TTCAGGGACAGGACATTCACAGACACCACCTCCTTCCCTCTTTCACATGGATCCCTCTTCAAGCTTAAA
 CCTGGGAGGACTCACAAACGGCAGTGGAAGATACATCTCTGCTGCTCCCGTGCCGAAGCCAAGTACCGC
 AGTGCAAGCAGTGCCCTCAGCCTTTTTCAGCCCCAGCAGCACCTTTTTTCTCTCTCGTTTGCATATG
 GAATGTCTGATGTTATGCCCTCTGGCAGGAGCAGACTTCTGGAAGATTTTCGAAACAACCGGTACCTTAA
 TTTACAACCTGCGGGAGATTGCTGGGCATATAATGGAATTTTCTCAAGACCAGCATGGCTCTAGATTCTT
 CAGCTGAAACTAGAGCGTGCCACAGCAGCTGAGCGCCAGCTTGTCTTCAATGAAATCCTCCAGGCTGCGT
 ACCAACTTATGGTGGATGTGTTTGGAAATTACGTCATTCAGAAGTTTTTGAATTTGGCAGTCATGAACA
 GAAGCTGGCTCTGGCTGAACGGATTCGAGGCCATGTCCTATCATTGGCACTGCAGATGTACGGCTGCCGA
 GTCATCCAGAAAGCTTTGGAGTTTATCCCTCAGACCAGCAGGTAATTAACGAGATGGTGCGGGAGCTAG
 ATGGCCATGTCCTGAAGTGTGTGAAAGACCAGAACGGCAACCATGTGGTTCAGAAGTGCATTGAGTGTGT
 ACAGCCCCAGTCTTTGCAGTTTATCATCGATGCATTCAAGGGGCAGGTGTTTGTCTTGTCTACGCCCG
 TACGGCTGTAGGGTATCCAGAGGATCCTAGAGCACTGTCTCCCTGACCAGACCTCCCCATCCTGGAGG
 AGCTTCACCAGCACACAGAGCAGCTTGTGCAGGATCAGTATGGAATTTGTAATCCAACATGACTGGA
 GCATGGTCTGCTGAGGATAAAAGCAAAATTGTAGCAGAGATCCGAGGCAATGACTTGTATTGAGTCAG
 CACAAGTTTGAAGCAATGTTGTGGAGAAGTGTGTTACTCACGCCTCACGTACAGAGCGTCTGTGCTCA
 TTGATGAGGTGTGACCATGAACGACGGTCCCCACAGTGCCTTATACCCATGATGAAGGATGATGTC
 TAACTATGTGGTCCAGAAGATGATCGATGTGGCTGAGCCGGTCCAGCGGAAGATTGTCATGCACAAGATC
 CGGCCACACATTGCGACGCTTCGAAAGTACACCTATGGCAAGCACATCCTGGCCAAGCTCGAGAAGTACT
 ACATGAAGAATGGCGTGGACTTGGGGCCCATTTGTGGTCCCCCTAATGGTATCATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR218109 representing NM_001159605
 Red=Cloning site Green=Tags(s)

MSVACVLKRKAVLWQDSFSPHLKHPQEPANPNMPVVL TSGTGSQAQPQPAANQALAAGTHSSPVPGSIG
 VAGRSQDDAMVDYFFQRQHGEQLGGGSGGGYNTSKHRWPTGDNIAEHQVRSMDLNDHFQALALEGR
 AMGEGPRDADSDENDKGEKKNKGTFDGDKLGDLEEGDVMKTNGLPVQNGIDADVKDFSRTPGNCQNSA
 NEVDLLGPNQNGSEGLAQLTSTNGAKPVEDFSNMESQSVPLDPMEHVGMPELQFDYSGTQVPVDSAAATV
 GLFDYNSQQQLFQRPNALAVQQLTAAQQQYALAAAHQPHI GLAPAAFVNPYII SAAPPGTDPYTAGLA
 AAATLGPVAVPHQYQYVTPWGVYPASLFQQQAAAAAATNSATQQSAPQAQQGQQVLRGGASQRPLTPN
 QNQQGQTDPLVAAAAVNSALAFQGLAAGMPGYPVLAAPAYDQTGALVFNAGARNGLAPVRLVAPAP
 V I I S S S A A Q A A V A A A A S A N G A A G L A G T T N G P F R P L G T Q P Q P Q P Q P S N N L A S S F Y G N N S L S S N S Q
 S S S L F S Q G S A Q P A N T S L G F G S S S L G A T L G S A L G G F G T A V A N S N T G S G S R R D S L T G S S D L Y K R T S S S L A P
 I G H S F Y S S L S Y S S S P G P V G M P L P S Q G P G H S Q T P P P S L S S H G S S S L N L G G L T N G S G R Y I S A A P G A E A K Y R
 S A S S A S S L F S P S T L F S S S R L R Y G M S D V M P S G R S R L L E D F R N N R Y P N L Q L R E I A G H I M E F S Q D Q H G S R F I
 Q L K L E R A T A A E R Q L V F N E I L Q A A Y Q L M V D V F G N Y V I Q K F F E F G S H E Q K L A E R I R G H V L S L A L Q M Y G C R
 V I Q K A L E F I P S D Q Q V I N E M V R E L D G H V L K C V K D Q N G N H V V Q K I E C V Q P Q S L Q F I I D A F K G Q V F A L S T H P
 Y G C R V I Q R I L E H C L P D Q T L P I L E L H Q H T E Q L V Q D Q Y G N Y V I Q H V L E H G R P E D K S I V A E I R G N V L V L S Q
 H K F A S N V V E K C V T H A S R T E R A V L I D E V C T M N D G P H S A L Y T M M K D Q Y A N Y V V Q K M I D V A E P G Q R K I V M H K I
 R P H I A T L R K Y T Y G K H I L A K L E K Y M K N G V D L G P I C G P P N G I I

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

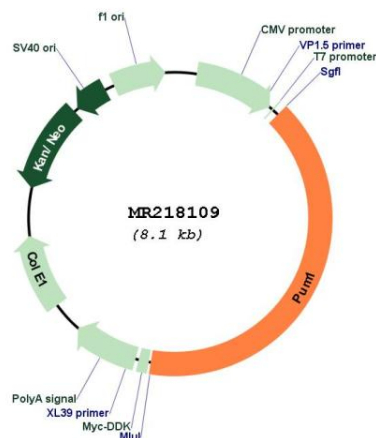
https://cdn.origene.com/chromatograms/mm9040_a07.zip

Cytogenetics: 4 D2.2

MW: 116.6 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. Following growth factor stimulation, phosphorylated and binds to the 3' UTR of CDKN1B/p27 mRNA, inducing a local conformational change that exposes miRNA-binding sites, promoting association of miR-221 and miR-222, efficient suppression of CDKN1B/p27 expression, and rapid entry to the cell cycle (By similarity). Acts as a post-transcriptional repressor of E2F3 mRNAs by binding to its 3' UTR and facilitating miRNA regulation (By similarity). 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 (By similarity). Involved in neuronal functions by regulating ATXN1 mRNA levels: acts by binding to the 3' UTR of ATXN1 transcripts, leading to their down-regulation independently of the miRNA machinery (PubMed:25768905). In testis, acts as a post-transcriptional regulator of spermatogenesis by binding to the 3' UTR of mRNAs coding for regulators of p53/TP53 (PubMed:22342750). Involved in embryonic stem cell renewal by facilitating the exit from the ground state: acts by targeting mRNAs coding for naive pluripotency transcription factors and accelerates their down-regulation at the onset of differentiation (PubMed:24412312). Binds specifically to miRNA MIR199A precursor, with PUM2, regulates miRNA MIR199A expression at a postranscriptional level (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR218109