

## Product datasheet for **MR226194**

### **Pnpt1 (NM\_027869) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pnpt1 (NM_027869) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pnpt1
Synonyms:	1200003F12Rik; Old35; PNPase; Pnptl1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR226194 representing NM\_027869  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGCTGCAGGCTGTGCTGCTTGTGCCCGTGCCTCCGACCGCTGGGCTGCGGCCCCCTCGGCCGGC  
 CCGGGCGGAATCGGGCACTCAGCTATTTGCAGATGCGAGCGTTGTGGAGCAGCACCGGATCCAGAGCGGT  
 GACTGTAGACCTGGGACACAGAAAATTAGAAAATCCTCTGGGAAACTGGCAAGATTTGCTGATGGCTGT  
 GCTGTGATACAGTCAGGCGATACTGCAGTAATGGTCACGGCAGTCAGAAAAAAAAGCTTCGCCTTCCC  
 AATTCATGCCGTTGGTGGTGGACTACCGACAGAAGGCTGCTGCAGCAGGCAGAATCCCCACAACTACCT  
 TAGAAGGGAGATTGGCTCCTCTGACAGAGAGGTTCTTACAAGTCGAGTAATAGATCGTTCAATTCGCCCT  
 CTCTTTCCAGCCGGCTATTTTTATGATACTCAGGTTCTCTGTAATCTGCTAGCAGTAGATGGCATCAATG  
 AACCTGATATCCTAGCAGTTAATGGTCTTCTGTAGCCCTCTCCTTATCAGATATCCCTTGAATGGACC  
 TGTTGGGGCAGTACGAATAGGAATGATTGATGGAGAATGTGTCGTTAACCCAACAAGGAGAGAAATGTCT  
 TCTAGCACTTTAAATTTAGTAGTTGCCGAGCACCTAAAAGCCAAATGTTATGTTGGAAGCCTCTGCAG  
 AAAATATTCTACAGCAGGACTTTTGCCATGCTATCAAAGTTGGGGTGAAGTATACACAGCAGATAATTCA  
 GGGCATCCAGCAGTTGGTAAAAGAAATCGGTGTTGCCAAGAGGACACCGCAGAAGATATTTACTCCTTCT  
 GCAGAGATTGTGAAGTACACGAAGATAATTGCCATGGAGAACTCTATGCGGTTTTTACAGATTATGAAC  
 ATGATAAAGTTTTCCAGGGATGAAGCTGTTAACAAGATAAGATTAGATACAGAGGAGCATCAAAGAAAA  
 ATTTCCAGAGGTTGACCAATTTGAAATAATAGAATCCTTCAACATTGTTGCAAAGGAGGTTTTCCGAAGT  
 ATATTTTTGAATGAATACAAAAGGTGTGATGGAAGAGATCTGACTTCACTTAGGAATATAAGTTGTGAGG  
 TCGATATGTTTTAAAACACTTCATGGATCAGCATTATTTCCAGAGAGGACAAACACAGGTACTGTACTGT  
 TACATTTGATTCATTAGAAATCCAGTATTAAGTCAGATCAAATTATAACAGCTATAAATGGGGTAAAAGAT  
 AAAAATTTTCATGCTGCACTATGAGTTCCCTCCTTATGCAACCAATGAAACCGGCAAAAGTTACTGGTGTGA  
 ATCGAAGAGAACTTGACATGGTCTCTTGCCGAGAAAGCTTTGTGCTCTGTTATTTCCAAAGATTTTCC  
 TTTTACCATAAGAGTTACATCTGAAGTCTCGAATCAAATGGGTCATCTTCTATGGCATCTGCATGTGGT  
 GGAAGTTTGGCATTAAATGGATGCAGGGTCCCAATTTCTGCTGTTGCAGGTGTAGCAGTGGGATTGG  
 TTACCAAAACCAATCCAGAGAAAGGTGAAATAGAAGACTACCGTTTGCTAACAGATATTCTGGGAATTGA  
 AGATTATAATGGTGACATGGATTTCAAATAGCCGGTACAATAAAGGAATAACTGCATTACAGGCTGAT  
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 AGAAACAGTAAAGGTTCCATTATCAAAACGAGCAAAATTCGTTGGGCCTGGTGGATCACTTAAAAAAA  
 CTCCAGGCTGAGACAGGTGTAACAATTAGTCAGGTTGATGAAGAAACCTTCTCCATATTTGCACCAACAC  
 CTACTGCAATGCATGAAGCAAGAGATTTTATTACAGAAATTTGCAGAGATGATCAAGAGCAACAATTAGA  
 ATTTGGAGCAGTTTATACCGCGACAATAACTGAAATCAGAGACTGGAGTGTGGTAAAACCTGTATCCA  
 AACATGACTGCAGTGTGCTTCATAATTCACAACCTGACCAACGAAAGATTAAACATCCCCTGCCCCTAG  
 GACTAGAGGTTGGCCAAGAAATTCAGGTCAAACTTTGGCCGTGATCCAGCTGATGGAAGAATGAGGCT  
 TTCTCGTAAAGTACTTCAGTCTCCAGCTACAACCTGCTCTCAAACTCTAAATGATAGAAGCAGCATTGTA  
 ATGGGAGAGCCTGTCTCACAGTCATCTAACTCTAACCCCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR226194 representing NM\_027869  
Red=Cloning site Green=Tags(s)

MAACRLCCLCPCLRPLGCGPLGRPGRNRALSYLQMRALWSSTGSRVAVTVDLGHRKLEISSGKLARFADGC  
AVIQSGDTAVMVTAVSKTKASPSQFMPLVVDYRQKAAAAGRIPTNYLRREIGSSDREVLTSRVIDRSIRP  
LFPAGYFYDTQVLCNLLAVDGINEPDILAVNGASVALSLSDIPWNGPVGAVRIGMIDGECVVNPTRRMS  
SSTLNLVVAGAPKSQIVMLEASAENILQQDFCHAIKVGKVTQQIIQGIQQLVKEIGVAKRTPQKIFTPS  
AEIVKYTKIIAMEKLYAVFTDYEHDKVSREAVNKIRLDTEEHLKEKFPEVDQFEIIESFNIVAKEVFRS  
IILNEYKRCDGRDLTSLRNISCEVDMFKTLHGSALEFQRGQTQVLCVTTFDSLESSIKSDQIITAINGVKD  
KNFMLHYEFPPYATNETGKVTGVNRRELGHGALAEKALCPVIPKDFPFTIRVTSEVLESNGSSSMASACG  
GSLALMDAGVPISSAVAGVAVGLVTKTNPEKGEIEDYRLLTDILGIEDYNGDMDFKIAGTNKGITALQAD  
IKLPGVPIKIIMEAIQQASVAKKEILQIMNKTISKPRASRKENGPVVETVKVPLSKRAKRVGPGGYHLKK  
LQAETGVTISQVDEETF SIFAPTPTAMHEARDFITEICRDDQEQL EFGAVYTATITEIRD TGVMVKLYP  
NMTAVLLHNSQLDQRKIKHPTALGLEVGQEIQVKYFGRDPADGRMRLSRKVLQSPATTALKTLNDRSSIV  
MGEPVVSQSSNSNP

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_027869

**ORF Size:** 2349 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_027869.2](#)

**RefSeq Size:** 2704 bp

**RefSeq ORF:** 2352 bp

**Locus ID:** 71701

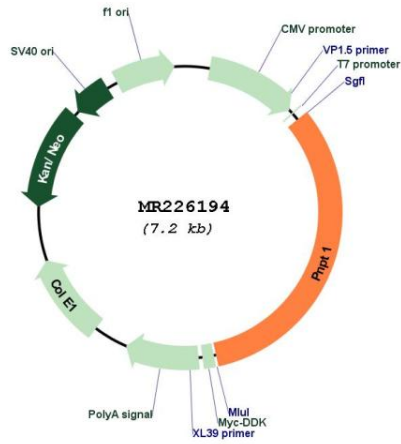
**UniProt ID:** [Q8K1R3](#)

**Cytogenetics:** 11 A3.3

**MW:** 86.1 kDa

**Gene Summary:** RNA-binding protein implicated in numerous RNA metabolic processes. Catalyzes the phosphorolysis of single-stranded polyribonucleotides processively in the 3'-to-5' direction. Mitochondrial intermembrane factor with RNA-processing exoribonuclease activity. Component of the mitochondrial degradosome (mtEXO) complex, that degrades 3' overhang double-stranded RNA with a 3'-to-5' directionality in an ATP-dependent manner. Required for correct processing and polyadenylation of mitochondrial mRNAs. Plays a role as a cytoplasmic RNA import factor that mediates the translocation of small RNA components, like the 5S RNA, the RNA subunit of ribonuclease P and the mitochondrial RNA-processing (MRP) RNA, into the mitochondrial matrix. Plays a role in mitochondrial morphogenesis and respiration; regulates the expression of the electron transport chain (ETC) components at the mRNA and protein levels. In the cytoplasm, shows a 3'-to-5' exoribonuclease mediating mRNA degradation activity; degrades c-myc mRNA upon treatment with IFN $\beta$ 1/IFN-beta, resulting in a growth arrest in melanoma cells. Regulates the stability of specific mature miRNAs in melanoma cells; specifically and selectively degrades miR-221, preferentially. Plays also a role in RNA cell surveillance by cleaning up oxidized RNAs. Binds to the RNA subunit of ribonuclease P, MRP RNA and miR-221 microRNA.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR226194