

## Product datasheet for **MR208541**

### **Pitrm1 (BC006917) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pitrm1 (BC006917) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pitrm1
Synonyms:	MP1, mKIAA1104, Ntup1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR208541 representing BC006917  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAAGCCAGACGACAAGTATTATGAAAAGCAAACCTCAGATGGAGACAGAAAAGCTGGAGCAAAAGGTGA  
 ATTCTCTCTCCCGGCGGACAAGCAGCAGATCTACGAGAAAGTTTGAAGTACAGACGCAGCAAAGTAA  
 ACATCAAGACGCCTCCTGCCTCCAGCATTGAAAGTCTCGGACATTGAGCCCTCCATGCCTTTCACCAAG  
 CTTGACATCGGCCTTGACGCTGGAGACATCCCTGTGCAGTACTGCCACAGCCACCAACGGCATGGTGT  
 ATTTCCGAGCCTTTCCAGTTTAAACACGCTGCCGGAGGACCTGAGGCCATTGTGCCTCTCTTTGACG  
 CGTGCTGACCAAGCTGGTTGTGGCATCTTAACACAGAGAGCAAGCCCAACAGATTGAGCTCAAGACA  
 GGAGGCATGAGTGCACGCCCCATGTGCTCCCTGACGACTCACAGCTGGATACCTACGAGCAGGGTGTGT  
 TATTTTCATCTCTGCCTGGAGCGGAACCTGCCAGACATGATGCATCTGTGGAGCGAAATATTTAACAA  
 TCCATGCTTTGAAGAAGAAGAACAACCTTCAAAGTGTGGTGAAGATGACCGCTCAGGAGCTCTCCAATGGA  
 ATTTCAGACTCGGGGCATCTCTATGCAGCCCTCAGAGCAAGAACACTGACACCTTCAGGGGACTTGC  
 AGGAGACCTTCAGTGGGATGGATCAGGTGAAGGTGATGAAAAGAATTGCAGAGATGACAGACATCAAGCC  
 CATCCTGAGAAAACCTGCCCGGATCAAGAAGTATCTACTAAACTGTGACAACATGAGATGCTCAGTGAAT  
 GCCACCCCTCAGCAGATGCCTCAGGCAGAAAAGAGGTGGAAAACCTCCTTAGAAATGTTGGCCGAAGCA  
 AAAAGGAACGGAAGCCTGTCCGCCCGCATATTGTGAGAAAACCCACCCAGTGGCCCCAGTGGAGCTGC  
 ACATGTCAGTGGTCCCAGATCGTCAGAAAATTGGTGACAGACCCACCTTCAAACCTGCCAGATGAAG  
 ACACATTTGTGCTGCCCTTCCCTGTGAATTACATTGGCGAGTGTGTGAGACTGTCCCCTATGCTGAGA  
 CAGACCATGCCAGCCTTAAGACTTGGCCGTCTAATGACAGCTAAATTCTGCATACGGAAATTCGAGA  
 GAAGGGGGTGTATGGTGGCGGTGCTAAACTCACCCACAGTGGGATTTTACGCTTTACTCTTACAGG  
 GATCCCAATTCATAGAAACACTCCAGTCTTTGGGAAAGCTGTAGACTGGGCTAAGTCTGGAAAGTTCA  
 CACAGCAGGACATTGATGAAGCCAAGCTGTCTGTTTTCTACTGTGGATTCTCCTGTTGCTCCATCCGA  
 TAAAGGAATGGACCACTTCTGTATGGCCTCTCCGATGAGATGAAGCAGGCATACCGAGAACAGCTCTTT  
 GCTGTCAACCACGACAAACTGACCTCTGTGAGCCATAAATACCTTGGCATCGGGAAGAGCACACACGGCC  
 TGGCTATCTCGGACCAGAGAACTCAAAAATTGCCAAAGACCCATCATGGATCATAAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR208541 representing BC006917  
 Red=Cloning site Green=Tags(s)

MKPDDKYYEKQTMETEKLEQKVNSLSPADKQQIYEKLELQTQQSKHQDASCLPALKVSDIEPSMPFTK  
 LDIGLAAGDIPVQYCPQPTNGMVYFRAFSSLNLPEDLRPIVPLFCSVLTKLGCGILNYREQAQQIELKT  
 GGMSVTPHVLPPDSQLDYEQGVLFSSLCLERNLPDMMHLWSEIFNNPCFEEEEHFVLVKMTAQELSNG  
 ISDSGHLAALRASKTLTPSGDLQETFSGMDQVKVMKRIAEMTDIKPILRKLPRIKKYLNCNMRCSVN  
 ATPQQMPQAEKEVENFLRNVGRSKKERKPVPHIVEKPTPSGPGAAHVSGSQIVRKLVTDPFTKPCQMK  
 THFVLPFPVNYIGECVRTVPYADPDHASLKILARLMTAKFLHTEIREKGGAYGGGAKLTHSGIFTLYSYR  
 DPNSIETLQSFKAVDWAKSGKFTQQDIDEAKLSVFSTVDSPVAPSDKGMDFLYGLSDEMKAQYREQLF  
 AVNHDKLTSSVSHKYLIGKSTHGLAILGPENSKIADPSWIIK

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**ACCN:** BC006917

**ORF Size:** 1599 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:** [BC006917](#), [AAH06917](#)
**RefSeq Size:** 2237 bp

**RefSeq ORF:** 1601 bp

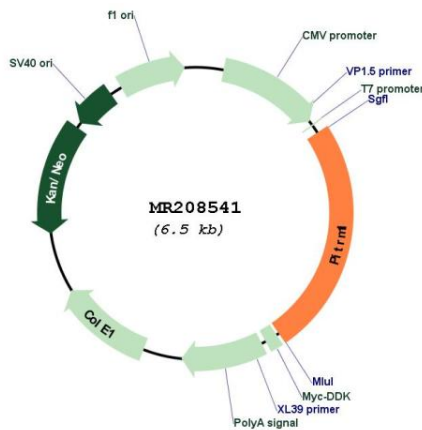
**Locus ID:** 69617

**Cytogenetics:** 13 A1

MW: 82 kDa

**Gene Summary:** Metalloendopeptidase of the mitochondrial matrix that functions in peptide cleavage and degradation rather than in protein processing. Has an ATP-independent activity. Specifically cleaves peptides in the range of 5 to 65 residues. Shows a preference for cleavage after small polar residues and before basic residues, but without any positional preference. Degrades the transit peptides of mitochondrial proteins after their cleavage. Also degrades other unstructured peptides. It is also able to degrade amyloid-beta protein 40, one of the peptides produced by APP processing, when it accumulates in mitochondrion. It is a highly efficient protease, at least toward amyloid-beta protein 40. Cleaves that peptide at a specific position and is probably not processive, releasing digested peptides intermediates that can be further cleaved subsequently.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR208541