

Product datasheet for MR220510

Pitrm1 (NM_145131) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pitrm1 (NM_145131) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pitrm1
Synonyms:	2310012C15Rik; AA410010; mKIAA1104; MP-1; MP1; Ntup1; PreP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR220510 representing NM_145131 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGTGGCGCTTCAGCGGTGCGGGGACTCTGCGCTGTACAGCGGCTGAGCTGCGGCAGGGTACACCACA
 GAGTATGGAGGGAGAAGAGTGACCAAGCCTGTGAACGAGCTCTACAGTATAAAGTGGGAGAGAAAATCCA
 CGGGTTCAGTGTAAACCAGGTCACTCCTGTCCCGAGCTGTTCTGACAGCCGTGAAGCTCAGCCATGAC
 AACACGGGAGCCAGATACCTGCACCTGGCAAGGGAAGACAAGAACAACCTATTTCAGTGTGCAGTTCCGCA
 CAACCCCAATGGATAGCACTGGGGTCCCATGTTCTCGAGCATACGGTCTGTGCGGCTCTCAGAAGTA
 CCCGTGCAGAGATCCTTTCTTCAAAATGCTCAACAGGTCACTGTCCACATTTATGAATGCCATGACAGCC
 AGCGATTACAGTATATCCGTTTTCCACTCAAAATCCCAAAGATTTTCAGAACCCTCTCTCCGTGTATT
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CAATATTTTAAGAACAAATCAGCACAAGCTGACTTTATCCATGAAGCCAGACGACAAGTATTATGAAAAGC
AAACTCAGATGGAGACAGAAAAGCTGGAGCAAAAGGTGAATTCTCTCTCCCGGCGGACAAGCAGCAGAT
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CTCACCACAGTGGGATTTTACGCTTTACTCTTACAGGGATCCCAATTCATAGAAACACTCCAGTCTT
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TGCCAAAGACCCATCATGGATCATAAAA

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR220510 representing NM_145131

Red=Cloning site Green=Tags(s)

MWRFSGRRGLCAVQRLSCGRVHHRVWREKSDQACERALQYKVGEKIHGFTVNQVTPVPELFLTAVKLSHD
NTGARYLHLAREDKNNLFSVQFRTTPMDSTGVPHVLEHTVLCGSQKYPDRDPFFKMLNRLSTFMNAMTA
SDYTIYPFSTQNPQDFQNLVSVYLDATFFPCLRELDWFQEGWRLEHENPRDPQTPLIFKGVVFNEMKGAF
TDNERIFSQHLQNKLLPDHTYSVVSGGDPLCIPELTWEQLKQFHATHYHPSNARFFTYGNFQLEGLKQI
HEEALSKFQRLQSTAVPAQPHWDKPREFHITCGPDSLATETAKQTTVSFLLPDITDTFEAFTLSLLS
SLLIAGPNSPFYKALIESGLGTDSPDVGYNQYTREAYFSVGLQIAEKDVKTRELVDRTIEEVIEKGF
EDDRIEALLHKIEIQTKHQASFGTLTTSYIASCWNHGDGPVELLQIGSQLTRFRKCLKENPKFLQEKVE
QYFKNNQHKLTLSMKPDDKYYEQTMETEKLEQKVNSLSPADKQIYEGLELQTQQSKHQDASCLPAL
KVSDIEPSMPFTKLDIGLAAGDIPVQYCPQPTNGMVYFRAFFSSLNTPEDLRPIVPLFCSVLTKLGCGIL
NYREQAQQIELKTGGMSVTPHVLPPDSQLDTEYQGVLFSSLCLEARNLPDMMHLWSEIFNPNCFEEEEHFK
VLVKMTAQELSGISDSGHLAALRASKTLTPSGDLQETFSGMDQVKVMKRIAEMTDIKPILRLPRIKK
YLLNCDNMRCVSNATPQQMPQAEKEVENFLRNVGRSKKERKPVPRHIVEKPTPSGPSAAHVSGSQIVRK
LVTDPFTKPCQMKTHFVLPFPVNYIGECVRTVPYADPDHASLKILARLMTAKFLHTEIREKGGAYGGGAK
LTHSGIFTLYSYRDPNSIETLQSFQKAVDWAKSGKFTQQDIDEAKLSVFSTVDSVPVAPSDKGMDFLYGL
SDEMKAQYREQLFAVNHDKLTSVSHKYLIGKSTHGLAILGPENSKIADPSWIIK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9090_c09.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_145131

ORF Size: 3108 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_145131.1](#), [NP_660113.1](#)

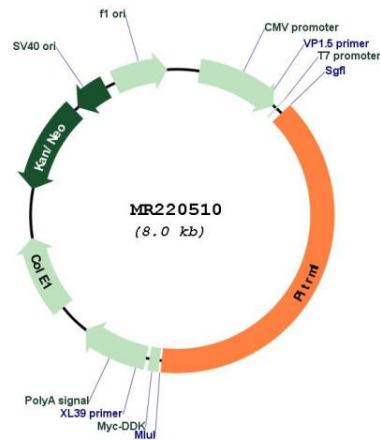
RefSeq Size: 3547 bp

RefSeq ORF: 3111 bp

Locus ID: 69617
UniProt ID: [Q8K411](#)
Cytogenetics: 13 A1
MW: 117.4 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 MR220510