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Product datasheet for SC114737

PITRM1 (NM_014889) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PITRM1 (NM_014889) Human Untagged Clone
Tag:	Tag Free
Symbol:	PITRM1
Synonyms:	MP1; PreP
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC114737 sequence for NM_014889 edited (data generated by NextGen Sequencing)

ATGTGGCGCTGCGGCGGGCGGCAGGGCCTGTGTGTGCTGAGGCGGCTGAGCGGCGGACAT
GCACACCACAGAGCGTGGCGATGGAACAGTAACCGGGCTTGTGAGAGGGCTCTGCAGTAT
AAACTAGGAGACAAGATCCATGGATTCACCGTAAACCAGGTGACATCTGTTCCCGAGCTG
TTCCTGACTGCAGTGAAGCTCACCCATGATGACACAGGAGCCAGGTATTTACACCTGGCC
AGAGAAGACACGAATAATCTGTTCAGCGTGCAGTTCCGTACTACTCCCATGGACAGTACT
GGTGTTCCTCACATTCTTGAGCATACCGTCCTTTGTGGGTCTCAGAAATATCCGTGCAGA
GACCCTTTCTTCAAAATGTTGAACCGGTCCCTCTCCACGTTCATGAACGCCTTCACAGCT
AGTGATTATACTCTGTATCCATTTTCCACACAAAATCCCAAGGACTTTCAGAATCTCCTC
TCGGTGTATTTGGATGCCACCTTTTTCCCATGTTTACGCGAGCTGGATTTCTGGCAGGAA
GGATGGCGGCTGGAACATGAGAATCCGAGCGACCCCCAGACGCCCTTGGTCTTTAAAGGA
GTCGTCTTTAATGAGATGAAGGGAGCGTTTACAGACAATGAGAGGATATTCTCCCAGCAC
CTTCAGAACAGACTTCTTCCTGACCACACGTACTCAGTGGTCTCCGGGGGTGACCCACTG
TGCATCCCGGAGCTTACATGGGAGCAGCTTAAGCAGTTTCATGCCACTCACTATCACCCA
AGCAATGCTAGGTTCTTCACGTACGGTAATTTTCCATTAGAACAGCATCTGAAACAAATT
CACGAGGAAGCACTGAGCAAATTCCAGAAAATTGAACCAAGCACCGTGGTGCCAGCTCAG
ACACCCTGGGACAAGCCTAGGGAATTCCAGATAACATGTGGCCCGGATTCATTTGCTACA
GATCCCTCTAAACAAACAACCATCAGCGTTAGCTTCCTCTTACCGGACATCACCGACACA
TTTGAAGCCTTCACATTAAGTCTTCTGTCTTCACTCTTGACTTCTGGGCCCAATTCTCCC
TTTTACAAAGCCTTGATTGAATCTGGCCTTGGCACAGACTTTTCTCCTGATGTTGGATAT
AATGGCTACACGAGGGAGGCCTACTTTAGTGTCGGCCTCCAAGGGATTGCGGAGAAAGAC
ATTGAGACCGTCAGAAGCCTCATAGACAGAACGATTGATGAAGTAGTTGAGAAAGGATTT
GAAGATGATCGAATTGAGGCTTTACTTCATAAAATTGAAATACAGATGAAACATCAGTCT
ACCAGCTTTGGGCTGATGCTGACATCATACATAGCTTCTTGCTGGAACCATGATGGGGAC
CCTGTGGAGCTCTTGAAGTTGGGAAATCAGTTAGCTAAATTCAGACAGTGCCTGCAGGAA
AATCCAAAATTTTTGCAAGAAAAAGTAAAACAGTATTTTAAGAATAACCAGCATAAGCTG

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ACTTTATCGATGAGGCCAGATGACAAGTATCACGAGAAGCAGGCACAGGTGGAAGCCACG
AAGCTCAAGCAGAAGGTCGAGGCTCTGTCCCCCGGAGACAGGCAGCAGATCTACGAGAAA
GGTCTAGAATTACGGAGTCAACAAAGCAAACCTCAAGATGCCTCTTGTCTGCCAGCGTTG
AAAGTTTCCGATATTGAACCCACCATACCTGTCACAGAGTTGGACGTGGTCCTGACAGCT
GGAGATATCCCTGTTCAGTACTGCGCCCAGCCCACCAATGGCATGGTGTATTTCCGGGCC
TTCTCCAGCCTGAACACACTCCCCGAGGAGCTGAGGCCCTATGTGCCCCTCTTCTGCAGC
GTCCTCACCAAGCTGGGCTGCGGCCTTCTTGACTACCGGGAGCAGGCTCAGCAGATAGAA
TTGAAGACCGGAGGGATGAGTGCTTCTCCCCACGTGCTCCCCGACGACTCACACATGGAC
ACCTACGAGCAGGGTGTGCTTTTCTCCTCTCTCTGCCTGGATCGAAACCTGCCAGACATG
ATGCAGCTATGGAGTGAAATATTTAACAACCCGTGCTTTGAAGAAGAGGAGCACTTCAAG
GTGCTGGTGAAGATGACCGCCCAGGAGCTCGCCAATGGAATTCCTGACTCTGGGCACCTG
TACGCATCCATCAGGGCAGGCCGGACCCTCACGCCCGCAGGGGACCTGCAGGAGACCTTC
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ATCCTGAGGAAGCTCCCGCGTATCAAGAAACACTTGTTAAATGGTGATAATATGAGGTGT
TCAGTGAATGCGACTCCTCAGCAGATGCCTCAGACAGAAAAAGCGGTCGAAGACTTCCTT
AGAAGCATCGGTCGGAGTAAAAAGGAACGGAGGCCTGTGCGCCCACACACGGTCGAGAAA
CCTGTGCCCAGCAGCTCTGGTGGAGATGCCCACGTTCCCCATGGCTCCCAGGTCATTAGG
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GCCAGTCTTAAAATCCTTGCACGTTTGATGACTGCCAAATTCTTGCATACAGAAATTCGA
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TACTCTTACAGGGACCCAAATACAATAGAGACGCTCCAGTCTTTTGGGAAGGCTGTCGAC
TGGGCTAAGTCTGGAAAATTCACACAGCAAGACATCGACGAAGCCAAACTTTCTGTCTTC
TCAACCGTAGATGCTCCTGTCGCTCCTTCAGACAAAGGAATGGACCACTTCTTGTACGGC
CTCTCGGATGAGATGAAGCAGGCCCACAGAGAGCAGCTCTTTGCTGTCAGCCACGACAAG
CTCCTGGCCGTGAGCGATAGATACCTCGGCACTGGGAAGAGCACACACGGCCTGGCCATC
CTCGGACCCGAGAACCCGAAAATTGCCAAGGACCCATCCTGGATCATCCAATGA

Clone variation with respect to NM_014889.3

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_014889 unedited
TATACGACAACTATAGGGCGGCCGCGATTCGGCACGAGGGCGCAATGTGGCGCTGCGGCG
GGCGGCAGGGCCTGTGTGTGCTGAGGCGGCTGAGCGGCGGACATGCACACCACAGAGCGT
GGCGATGGAACAGTAACCGGGCTTGTGAGAGGGCTCTGCAGTATAAACTAGGAGACAAGA
TCCATGGATTCACCGTAAACCAGGTGACATCTGTTCCCGAGCTGTTCCTGACTGCAGTGA
AGCTCACCCATGATGACACAGGAGCCAGGTATTTACACCTGGCCAGAGAAGACACGAATA
ATCTGTTCAGCGTGCAGTTCCGTACTACTCCCATGGACAGTACTGGTGTTCCTCACATTC
TTGAGCATACCGTCCTTTGTGGGTCTCAGAAATATCCGTGCAGAGACCCTTTCTTCAAAA
TGTTGAACCGGTCCCTCTCCACGTTCATGAACGCCTTCACAGCTAGTGATTATACTCTGT
ATCCATTTTCCACACAAAATCCCAAGGACTTTCAGAATCTCCTCTCGGTGTATTTGGATG
CCACCTTTTTCCCATGTTTACGCGAGCTGGATTTCTGGCAGGAAGGATGGCGGCTGGAAC
ATGAGAATCCGAGCGACCCCCAGACGCCCTTGGTCTTTAAAGGNAGTCGTCTTTAATGAG
ATGAANGGGAGNCGTTACAGACAATGAGAGGATATTCTCCCAGCACCTTCAGAACAGACT
TCTTNCTGACCACACGTACTNCAGTGGTCTNCGGGGGGTGACCCACTGTGCATCCCGGAG
CTACATGGGAGCAGCTTTAGCAGTTTATGCCACTCACTATACCCAGCATGGCTAGGTTTT
TACGTCGGGAATTTTTCATTAAACAGCTTGAACAAATCGAGGAGCCTGGGCAATCAAAAT
GACAGNCCCCGGGGGCACTTNAAACCCTGGCAGCTAGGATCAAAAAATGGCCGGATTTTT
TTAAAACCTTAACAACATAA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_014889 unedited
ACTCTCTGGACCCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTT
AAGTCAGAGTTGCCCTTTATTTTTAGATTCTTAAATATTCTAGAATGAGGTAAAACGAGC
CTGCCAGTACAAAGTGAAAATTCTACATGGTGCATCTTTGGCGCTTCATGCATGATTATT
TCAATGAACCTCTTCCTGGTCACTCTTAAGATAGATCTGAGTTTTTGACTCGCCAGTCAA
GGGCTTTGGCGACACTCAATGACATAATATTCTTGGAAAAAGCAGTAGCATTTCTGACTT
TTCATATTCAGCTCGGAGGTGTATTGTCTCGGGCTCCTGTGCAGTCGAGCGCCACGGCTG
CTCATTGGATGATCCAGGATGGGTCCTTGGCAATTTTCGGGTTCTCGGGTCCGAGGATGG
CCAGGCCGTGTGTGCTCTTCCCAGTGCCGAGGTATCTATCGCTCACGGCCAGGAGCTTGT
CGTGGCTGACAGCAAAGAGCTGCTCTCTGTGGGCCTGCTTCATCTCATCCGAGAGGCCGT
ACAAGAAGTGGTCCATTCCTTTGTCTGAAGGAGCGACAGGAGCATCTACGGTTGAGAAGA
CAGAAAGTTTGGCTTCGTCGATGTCTTGCTGTGTGAATTTTCCAGACTTAGCCCAGTCGA
CAGCCTTCCCAAAAGACTGGAGCGTCTCTATTGTATTTTGGTCCCTGTAGAGTAAAGGGG
TGAAATCCCATTGTGGCTGAGTTTTGCGCCTCCCCATAGCCACCGNCTTTTTCTCGAATT
TCTGTATGCAAGAATTTGGCAGTCATCAAACGTGCAAGGATTTAAGACTGCCATGATCTG
GGTCCGTGTAGGGGACAGTTCGGATGCATTCACCCACGTATTTACCGGGAAGGGCATCAN
GAAGTGAGTCTCATCTGCCAGGCCTTGAAGGTGGGTCCTGAG

Restriction Sites: NotI-NotI

ACCN: NM_014889

Insert Size: 5270 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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

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_014889.2, NP_055704.2

RefSeq Size: 3465 bp

RefSeq ORF:	3114 bp
Locus ID:	10531
UniProt ID:	Q5JRX3
Cytogenetics:	10p15.2
Domains:	Peptidase_M16_C
Protein Families:	Druggable Genome, Protease
Gene Summary:	The protein encoded by this gene is an ATP-dependent metalloprotease that degrades post-cleavage mitochondrial transit peptides. The encoded protein binds zinc and can also degrade amyloid beta A4 protein, suggesting a possible role in Alzheimer's disease. [provided by RefSeq, Dec 2016] Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 3' coding region, compared to variant 1. This results in a shorter protein (isoform 2), compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.