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Product datasheet for SC119825

PMS2 (NM_000535) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PMS2 (NM_000535) Human Untagged Clone
Tag:	Tag Free
Symbol:	PMS2
Synonyms:	HNPCC4; MLH4; MMRCS4; PMS2CL; PMSL2
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None

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Fully Sequenced ORF: >NCBI ORF sequence for NM_000535, the custom clone sequence may differ by one or more nucleotides

ATGGAGCGAGCTGAGAGCTCGAGTACAGAACCTGCTAAGGCCATCAAACCTATTGATCGGAAGTCAGTCC
ATCAGATTTGCTCTGGGCAGGTGGTACTGAGTCTAAGCACTGCGGTAAAGGAGTTAGTAGAAAACAGTCT
GGATGCTGGTGCCACTAATATTGATCTAAAGCTTAAGGACTATGGAGTGGATCTTATTGAAGTTTCAGAC
AATGGATGTGGGGTAGAAGAAGAAAACTTCGAAGGCTTAACTCTGAAACATCACACATCTAAGATTCAAG
AGTTTGCCGACCTAACTCAGGTTGAAACTTTTGGCTTTCGGGGGGAAGCTCTGAGCTCACTTTGTGCACT
GAGCGATGTCACCATTTCTACCTGCCACGCATCGGCGAAGGTTGGAACTCGACTGATGTTTGATCACAAT
GGGAAAATTATCCAGAAAACCCCCTACCCCCGCCCCAGAGGGACCACAGTCAGCGTGCAGCAGTTATTTT
CCACACTACCTGTGCGCCATAAGGAATTTCAAAGGAATATTAAGAAGGAGTATGCCAAAATGGTCCAGGT
CTTACATGCATACTGTATCATTTCAGCAGGCATCCGTGTAAGTTGCACCAATCAGCTTGGACAAGGAAAA
CGACAGCCTGTGGTATGCACAGGTGGAAGCCCCAGCATAAAGGAAAATATCGGCTCTGTGTTTGGGCAGA
AGCAGTTGCAAAGCCTCATTCCTTTTGTTCAGCTGCCCCCTAGTGACTCCGTGTGTGAAGAGTACGGTTT
GAGCTGTTCCGATGCTCTGCATAATCTTTTTTACATCTCAGGTTTCATTTCACAATGCACGCATGGAGTT
GGAAGGAGTTCAACAGACAGACAGTTTTTCTTTATCAACCGGCGGCCTTGTGACCCAGCAAAGGTCTGCA
GACTCGTGAATGAGGTCTACCACATGTATAATCGACACCAGTATCCATTTGTTGTTCTTAACATTTCTGT
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AGCAGCCACTGCTGGATGTTGAAGGTAACTTAATAAAAATGCATGCAGCGGATTTGGAAAAGCCCATGGT
AGAAAAGCAGGATCAATCCCCTTCATTAAGGACTGGAGAAGAAAAAAAAGACGTGTCCATTTCCAGACTG
CGAGAGGCCTTTTCTCTTCGTCACACAACAGAGAACAAGCCTCACAGCCCAAAGACTCCAGAACCAAGAA
GGAGCCCTCTAGGACAGAAAAGGGGTATGCTGTCTTCTAGCACTTCAGGTGCCATCTCTGACAAAGGCGT
CCTGAGACCTCAGAAAGAGGCAGTGAGTTCCAGTCACGGACCCAGTGACCCTACGGACAGAGCGGAGGTG
GAGAAGGACTCGGGGCACGGCAGCACTTCCGTGGATTCTGAGGGGTTCAGCATCCCAGACACGGGCAGTC
ACTGCAGCAGCGAGTATGCGGCCAGCTCCCCAGGGGACAGGGGCTCGCAGGAACATGTGGACTCTCAGGA
GAAAGCGCCTGAAACTGACGACTCTTTTTCAGATGTGGACTGCCATTCAAACCAGGAAGATACCGGATGT
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AGCTGTGAAAATTAATAAGAAAGTTGTGCCCCTGGACTTTTCTATGAGTTCTTTAGCTAAACGAATAAAG
CAGTTACATCATGAAGCACAGCAAAGTGAAGGGGAACAGAATTACAGGAAGTTTAGGGCAAAGATTTGTC
CTGGAGAAAATCAAGCAGCCGAAGATGAACTAAGAAAAGAGATAAGTAAAACGATGTTTGCAGAAATGGA
AATCATTGGTCAGTTTAACCTGGGATTTATAATAACCAAACTGAATGAGGATATCTTCATAGTGGACCAG
CATGCCACGGACGAGAAGTATAACTTCGAGATGCTGCAGCAGCACACCGTGCTCCAGGGGCAGAGGCTCA
TAGCACCTCAGACTCTCAACTTAACTGCTGTTAATGAAGCTGTTCTGATAGAAAATCTGGAAATATTTAG
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CCAACTAGTAAAAACTGGACCTTCGGACCCCAGGACGTCGATGAACTGATCTTCATGCTGAGCGACAGCC
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GATTGGGACTGCTCTTAACACAAGCGAGATGAAGAAACTGATCACCCACATGGGGGAGATGGACCACCCC
TGGAACTGTCCCCATGGAAGGCCAACCATGAGACACATCGCCAACCTGGGTGTCATTTCTCAGAACTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000535 unedited
AGAATTTGTATACGACTCATATAGGCGGCCGCGNATTCGGCACGAGGCTGGAGGGAACTT
TCCCAGTCCCCGAGGCGGATCGGGTGTTGCATCCATGGAGCGAGCTGAGAGCTCGAGTAC
AGAACCTGCTAAGGCCATCAAACCTATTGATCGGAAGTCAGTCCATCAGATTTGCTCTGG
GCAGGTGGTACTGAGTCTAAGCACTGCGGTAAAGGAGTTAGTAGAAAACAGTCTGGATGC
TGGTGCCACTAATATTGATCTAAAGCTTAAGGACTATGGAGTGGATCTTATTGAAGTTTC
AGACAATGGATGTGGGGTAGAAGAAGAAAACTTCGAAGGCTTAACTCTGAAACATCACAC
ATCTAAGATTCAAGAGTTTGCTGACCTAACTCAGGTTGAAACTTTTGGCTTTCGGGGGGA
AGCTCTGAGCTCACTTTGTGCACTGAGCGATGTCACCATTTCTACCTGCCACGCATCGGC
GAAGGTTGGAACTCGACTGATGTTTGATCACAATGGGAAAATTATCCAGAAAACCCCCTA
CCCCCGCCCCAGAGGGACCACAGTCAGCGTGCAGCAGTTATTTTCCACACTACCTGTGCG
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TGCATACTGTATCATTTCAGCAGGCATCCGTGTAAGTTGCACCAATCAGCTTGGACAAGG
AAAACGACAGCCTGTGGTATGCACAGGTGGAAGCCCCAGCATAAAGGAAAATATCGGCTC
TGTGTTTGGGCAGAAGCAGTTGCAAAGCCTCATTCCTTTTGTTCAGCTGCCCCCTAGTGA
CTNCGTGTGTGAAGAGTACGGTTTGAGCTGTTCNGATGCTCTGCATAATCTTTTTACATC
TCAGGNTTCATTTCACATGCACGCTGGANNTGGGGGNAGTTCACAGACAGACC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000535 unedited
GCCCGAATCTAGAATCGAGTTTTTTTTTTTTTTTTTGTTTTGGTTTTTGAAACACAGTC
TTGCTCTATCTCACCCAGGCTGGAGCGCAGTGGCGCAATCTCGGTTCACTGCAACCTCCG
TCTCCCGGGCCCAAGCGATTCTCCCGCCTCAGCCTCCTGGGTAGCGGGGATCACAGGCAT
GCGCCAGCACACCTGGCTAATTTTGTATTTTTAGTAAAGGCAGGGTTTCTCCATGTTGGT
CAAGCTGGTCTCGAACTTCTGATCTCAGGTGATCCGCCGGCCTCGGCCTCCCAAAGTGCT
GCGATCACAGGCATGAGCCACCATGCCCAGCCCAAGTGTTCTTATTTTTATAAAATGTGT
TCTTGCCTGGACACACACACACGAGCGCATGCAAACATAGAGAAAAAAAATTTGCAAGCA
ATGCTCCATCTGGTTTGAAAAGGGTCTCAAGATCACTTTTAAATGGGTGTGATGTGTATT
TTTTTTAAGTAGCAGGTTCATTTCAAAACAAAAAAGGTTAGTGAAGACTCTGTCTTTCAA
AACATAAAAATCTGCGATAAAACCAATTATTCCATACAGTGACTACGGTCAGTTCTGAGA
AATGACACCCAAGTTGGCGATGTGTCTCATGTTTGGCCTTCCATGGGGACAGTTCCAGAG
GTGGTCCATTTCCCCCATGTGGGAGATCAGTTTCTTCATTTCGCTTGTGGTTAAAAGCAG
TCCCAATCATTACCGACTTCCGGCAGGGCTCTGTGAGGCAAACATCTGCTTTGACTCTCG
GAAAGGCCGGAACAAGAACCCCAAGGCCTGGCGCCCAACCTTGATTATCATTTAATTCAA
CGCACTGGGTGCCCGAAGTGCCAATTTCTACATTATTGGCAAGAAAAACATTTATACCCT
ATACAAGACTAGAGCACTTCTTTCCGCTAACATAAATAAAGCCACTCCTTTCTTAAATAT
TCCCACTATTTTTTTAACAACCCTCCAANATAACCAGGTAGTCGAGAGACTCGAGTGCCT
ACAC

Restriction Sites: NotI-NotI

ACCN: NM_000535

Insert Size: 3090 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

RefSeq: NM_000535.3, NP_000526.1

RefSeq Size: 2851 bp

RefSeq ORF: 2589 bp

Locus ID:	5395
UniProt ID:	P54278, B4DGM0, Q7Z3Q2
Domains:	DNA_mis_repair, HATPase_c
Protein Families:	Druggable Genome
Protein Pathways:	Mismatch repair
Gene Summary:	The protein encoded by this gene is a key component of the mismatch repair system that functions to correct DNA mismatches and small insertions and deletions that can occur during DNA replication and homologous recombination. This protein forms heterodimers with the gene product of the mutL homolog 1 (MLH1) gene to form the MutL-alpha heterodimer. The MutL-alpha heterodimer possesses an endonucleolytic activity that is activated following recognition of mismatches and insertion/deletion loops by the MutS-alpha and MutS-beta heterodimers, and is necessary for removal of the mismatched DNA. There is a DQHA(X)2E(X)4E motif found at the C-terminus of the protein encoded by this gene that forms part of the active site of the nuclease. Mutations in this gene have been associated with hereditary nonpolyposis colorectal cancer (HNPCC; also known as Lynch syndrome) and Turcot syndrome. [provided by RefSeq, Apr 2016] Transcript Variant: This variant (1) represents the predominant transcript, and encodes isoform a. 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.