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Product datasheet for SC117111

LONP1 (NM_004793) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LONP1 (NM_004793) Human Untagged Clone
Tag:	Tag Free
Symbol:	LONP1
Synonyms:	CODASS; hLON; LON; LonHS; LONP; PIM1; PRSS15
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_004793, the custom clone sequence may differ by one or more nucleotides

ATGGCGGCGAGCACTGGCTACGTGCGACTGTGGGGAGCGGCGCGGTGCTGGGTGCTGCGGCGGCCGATGC
TGGCCGCCGCCGGGGGGCGGGTTCCCACTGCAGCAGGAGCGTGGTTGCTCCGAGGCCAGCGGACCTGCGA
CGCCTCTCCTCCTTGGGCACTGTGGGGCCGAGGCCCGGCAATTGGGGGCCAATGGCGGGGGTTTTGGGAA
GCGAGCAGCCGCGGCGGAGGCGCATTCTCGGGGGGCGAGGACGCCTCCGAGGGCGGCGCGGAGGAAGGAG
CCGGCGGCGCGGGGGGCAGCGCGGGCGCCGGGGAAGGCCCGGTCATAACGGCGCTCACGCCCATGACGAT
CCCCGATGTGTTTCCGCACCTGCCGCTCATCGCCATCACCCGCAACCCGGTGTTCCCGCGCTTTATCAAG
ATTATCGAGGTTAAAAATAAGAAGTTGGTTGAGCTGCTGAGAAGGAAAGTTCGTCTCGCCCAGCCTTATG
TCGGCGTCTTTCTAAAGAGAGATGACAGCAATGAGTCGGATGTGGTCGAGAGCCTGGATGAAATCTACCA
CACGGGGACGTTTGCCCAGATCCATGAGATGCAGGACCTTGGGGACAAGCTGCGCATGATCGTCATGGGA
CACAGAAGAGTCCATATCAGCAGACAGCTGGAGGTGGAGCCCGAGGAGCCGGAGGCGGAGAACAAGCACA
AGCCCCGCAGGAAGTCAAAGCGGGGCAAGAAGGAGGCGGAGGACGAGCTGAGCGCCAGGCACCCGGCGGA
GCTGGCGATGGAGCCCACCCCTGAGCTCCCGGCTGAGGTGCTCATGGTGGAGGTAGAGAACGTTGTCCAC
GAGGACTTCCAGGTCACGGAGGAGGTGAAAGCCCTGACTGCAGAGATCGTGAAGACCATCCGGGACATCA
TTGCCTTGAACCCTCTCTACAGGGAGTCAGTGCTGCAGATGATGCAGGCTGGCCAGCGGGTGGTGGACAA
CCCCATCTACCTGAGCGACATGGGCGCCGCGCTCACCGGGGCCGAGTCCCATGAGCTGCAGGACGTCCTG
GAAGAGACCAATATTCCTAAGCGGCTGTACAAGGCCCTCTCCCTGCTGAAGAAGGAATTTGAACTGAGCA
AGCTGCAGCAGCGCCTGGGGCGGGAGGTGGAGGAGAAGATCAAGCAGACCCACCGTAAGTACCTGCTGCA
GGAGCAGCTAAAGATCATCAAGAAGGAGCTGGGCCTGGAGAAGGACGACAAGGATGCCATCGAGGAGAAG
TTCCGGGAGCGCCTGAAGGAGCTCGTGGTCCCCAAGCACGTCATGGATGTTGTGGACGAGGAGCTGAGCA
AGCTGGGCCTGCTGGACAACCACTCCTCGGAGTTCAATGTCACCCGCAACTACCTAGACTGGCTCACGTC
CATCCCTTGGGGCAAGTACAGCAACGAGAACCTGGACCTGGCGCGGGCACAGGCAGTGCTGGAGGAAGAC
CACTACGGCATGGAGGACGTCAAGAAACGCATCCTGGAGTTCATTGCCGTTAGCCAGCTCCGCGGCTCCA
CCCAGGGCAAGATCCTCTGCTTCTATGGCCCCCCTGGCGTGGGTAAGACCAGCATTGCTCGCTCCATCGC
CCGCGCCCTGAACCGAGAGTACTTCCGCTTCAGCGTCGGGGGCATGACTGACGTGGCTGAGATCAAGGGC
CACAGGCGGACCTACGTGGGCGCCATGCCCGGGAAGATCATCCAGTGTTTGAAGAAGACCAAGACGGAGA
ACCCCCTGATCCTCATCGACGAGGTGGACAAGATCGGCCGAGGCTACCAGGGGGACCCGTCGTCGGCACT
GCTGGAGCTGCTGGACCCAGAGCAGAATGCCAACTTCCTGGACCACTACCTGGACGTGCCCGTGGACTTG
TCCAAGGTGCTGTTCATCTGCACGGCCAACGTCACGGACACCATCCCCGAGCCGCTGCGAGACCGTATGG
AGATGATCAACGTGTCGGGCTACGTGGCCCAGGAGAAGCTGGCCATTGCGGAGCGCTACCTGGTGCCCCA
GGCTCGCGCCCTGTGTGGCTTGGATGAGAGCAAGGCCAAGCTGTCATCGGACGTGCTGACGCTGCTCATC
AAGCAGTACTGCCGCGAGAGCGGTGTCCGCAACCTGCAGAAGCAAGTGGAGAAGGTGTTACGGAAATCGG
CCTACAAGATTGTCAGCGGCGAGGCCGAGTCCGTGGAGGTGACGCCCGAGAACCTGCAGGACTTCGTGGG
GAAGCCCGTGTTCACCGTGGAGCGCATGTATGACGTGACACCGCCCGGCGTGGTCATGGGGCTGGCCTGG
ACCGCAATGGGAGGCTCCACGCTGTTTGTGGAGACATCCCTGAGACGGCCACAGGACAAGGATGCCAAGG
GTGACAAGGATGGCAGCCTGGAGGTGACAGGCCAGCTGGGGGAGGTGATGAAGGAGAGCGCCCGCATAGC
CTACACCTTCGCCAGAGCCTTCCTCATGCAGCACGCCCCCGCCAATGACTACCTGGTGACCTCACACATC
CACCTGCATGTGCCCGAGGGCGCCACCCCCAAGGACGGCCCAAGCGCAGGCTGCACCATCGTCACGGCCC
TGCTGTCCCTGGCCATGGGCAGGCCTGTCCGGCAGAATCTGGCCATGACTGGCGAAGTCTCCCTCACGGG
CAAGATCCTGCCTGTTGGTGGCATCAAGGAGAAGACCATTGCGGCCAAGCGCGCAGGGGTGACGTGCATC
GTCCTGCCAGCCGAGAACAAGAAGGACTTCTACGACCTGGCAGCCTTCATCACCGAGGGCCTGGAGGTGC
ACTTCGTGGAACACTACCGGGAGATCTTCGACATCGCCTTCCCGGACGAGCAGGCAGAGGCGCTGGCCGT
GGAACGGTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004793 unedited
GTAACGTCAAAATTTGTATACGACTCACTATAGGGCGGCCGCGAATTCGCACCAGTGGCG
GCGAGCACTGGCTACGTGCGACTGTGGGGAGCGGCGCGGTGCTGGGTGCTGCGGCGGCCG
ATGCTGGCCGCCGCCGGGGGGCGGGTTCCCACTGCAGCAGGAGCGTGGTTGCTCCGAGGC
CAGCGGACCTGCGACGCCTCTCCTCCTTGGGCACTGTGGGGCCGAGGCCCGGCAATTGGG
GGCCAATGGCGGGGGTTTTGGGAAGCGAGCAGCCGCGGCGGAGGCGCATTCTCGGGGGGC
GAGGACGCCTCCGAGGGCGGCGCGGAGGAAGGAGCCGGCGGCGCGGGGGGCAGCGCGGGC
GCCGGGGAAGGCCCGGTCATAACGGCGCTCACGCCCATGACGATCCCCGATGTGTTTCCG
CACCTGCCGCTCATCGCCATCACCCGCAACCCGGTGTTCCCGCGCTTTATCAAGATTATC
GAGGTTAAAAATAAGAAGTTGGTTGAGCTGCTGAGAAGGAAAGTTCGTCTCGCCCAGCCT
TATGTCGGCGTCTTTCTAAAGAGAGATGACAGCAATGAGTCGGATGTGGTCGAGAGCCTG
GATGAAATCTACCACACGGNGGACGTTTGCCCAGATCCATGAGATGCAGGACCTTGGGGA
CAAGCTGCGCATGATCGTCATGGGACACAGAAGAGTCCATATCAGCAGACAGCTGGAGGT
GGAGCCCGAGGAGCCGGAGGCGGAGAACAAGCACAAGCCCCGCAGGAAGTNCAAGCGGGG
CAAGAAGGAGGCGGAAGACGAGCTGAGCGCCGGCACCCGGCGGAGCTGGCGATGGAGCCC
ACCCTGAGCTCCCGGCTGAGTGCTCAGGTTGGAGGTAGAAAACGTTGTCCA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_004793 unedited
CTTGGACCGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTACGGCAAAGGACTTTAATCATTAAATACCTTTTAT
GCCACACTTTGATTAACCCCACTGAGGCCCCTGGGATCTGGGTCACTGGACCAAACTGCT
CGCTCGGGGGCTCCACTGCCAGGTCCGGGCCCCCTCCCCACAGCGCTAATTTTTGGCCCA
AACAGGGCCTGACATCCCCCCCCTGCAGTCCCGGGGGGGCCGTCACCGTTCCACGGCCAG
CGCCTTTGCCTGTTTTTCCGGAAAGGCAATGTCAAAAATCTCCCGGTAGTGTTCCACAAA
GGGCACCTCCAGGCCCTCGGGGATAAAGGCTGCCAGGTCAAAAAAATCCTTTTTGTTTTC
GGTTGGCAGGACAATGCACGTCACCCCTGCCCCCTTGGCCGAAATGGTTTTTTCCTTGAT
GCCACCAACAGGCAGGATCTTGCCCGGGAGGGAAACTTCCCCAGTCATGGCCAAATTTTG
CCGGACAGGCCTGCCCATGGCCAGGGACAACAGGGCCGTAACAATGGGGCAACCTGCCCT
TGGGCCGTCCTTGGGGGGGGCCCCCTCGGGCCATGCAGGGGGATGTGTGAGGCCCCAGGT
ATTATTGGCGGGGGGCGTGCTGCATAGAGGAGGCTCTGGCCAAGGTTAGGCTATGCGGGC
GCTTTCCTTATCACCCCCCCAGGTGGCCTGTCACTCCAGCTGGCATCCTTGCACCCTTGC
ATCCTTGGCTTGGGGCCGTTAAAGGGATGCCCCCAAAACGGGGGAACCTCCCTTGGNGGT
CCGGCCAACCCATACACCCGGGGGGGGGTGACATTTAAATGCCCTCCCGGGGAACCGGCT
CCCCAAAAACCCGGGGTTTTTGGGCGACCTCCCAGGTCTGCCTCGCGGTGAATTTTTAGG
CCTATTCCAA

Restriction Sites: NotI-NotI

ACCN: NM_004793

Insert Size: 3460 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_004793.1, NP_004784.1
RefSeq Size:	3221 bp
RefSeq ORF:	2814 bp
Locus ID:	9361
UniProt ID:	P36776
Cytogenetics:	19p13.3
Domains:	LON, AAA, AAA
Protein Families:	Druggable Genome, Protease
Gene Summary:	This gene encodes a mitochondrial matrix protein that belongs to the Lon family of ATP-dependent proteases. This protein mediates the selective degradation of misfolded, unassembled or oxidatively damaged polypeptides in the mitochondrial matrix. It may also have a chaperone function in the assembly of inner membrane protein complexes, and participate in the regulation of mitochondrial gene expression and maintenance of the integrity of the mitochondrial genome. Decreased expression of this gene has been noted in a patient with hereditary spastic paraplegia (PMID:18378094). Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Feb 2013] Transcript Variant: This variant (1) encodes the longest isoform (1).