

## Product datasheet for **SC126500**

### LONP2 (NM\_031490) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LONP2 (NM_031490) Human Untagged Clone
Tag:	Tag Free
Symbol:	LONP2
Synonyms:	LONP; LONPL; PLON; PSLON
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC126500 sequence for NM\_031490 edited (data generated by NextGen Sequencing)

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ATGTCATCAGTGAGCCCCATCCAGATCCCCAGTCGCCTCCCGCTGCTGCTCACCCACGAG
GGCGTCTGCTGCCCGGCTCCACCATGCGCACCAGCGTGGACTCGGCCCGCAACCTGCAG
CTGGTGCGGAGCCGCCTTCTGAAGGGCAGCTCGCTGCAAAGCACCATCCTGGGCGTCATC
CCCAACACGCCTGACCCCGCCAGCGACGCGCAGGACCTGCCGCCGCTGCACAGGATTGGC
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GAGGAGCTAGGAGAACTATCAGAGCAGTTTTACAAATATGCAGTACAATTGGTTGAAATG
TTGGATATGTCTGTCCCTGCAGTTGCTAAATTGAGACGCTTTTTAGATAGTCTTCCAAGG
GAAGCTTTACCAGACATCTTGACATCAATTATCCGAACAAGCAACAAAGAGAACTCCAG
ATTTTAGATGCTGTGAGCCTAGAGGAGCGGTTCAAGATGACTATACCACTGCTTGCAGA
CAAATTGAAGGCCTGAAATTGCTTCAAAAACCAGAAAACCAAGCAAGATGATGATAAG
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GAAGATGAAGATGAAGATAATGATGACATTGTCTAGTGTAGAGAAAAAATACGAACATCT
AGTATGCCAGAGCAGGCCATAAAGTCTGTGTCAAAGAGATAAAGAGACTCAAAAAAATG
CCTCAGTCAATGCCAGAATATGCTCTGACTAGAAAATTATTTGGAACTTATGGTAGAACTT
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AAAACAAGTGTGGGAAGATCAGTGGCCAAGACTTAGGTCGAGAGTTCCACAGGATTGCA
CTTGGAGGAGTATGTGATCAGTCTGACATTCGAGGACACAGGCGCACCTATGTTGGCAGC
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ATTCAGATACCCAGGTCACCACTCTTGACATCATCACCAGGTATACCAGAGAGGCAGGG
GTTCTGTTCTCTGGATAGAAAACCTGGGGCCATTTGCCAGCTGTGGCCGTGAAGGTGGCA
GAAGGACAGCATAAAGGAAGCCAAGTTGGACCGTCTGATGTGACTGAGAGAGAAGTTGC
AGAGAACACATCTTAGAAGATGAAAAACCTGAATCTATCAGTGACACTACTGACTTGGCT
CTACCACCTGAAATGCCGATTTTGATTGATTTCCATGCTCTGAAAGACATCCTTGGGCC
CCGATGTATGAAATGGAGGTATCTCAGCGTTTGAGTCAGCCAGGAGTAGCAATAGGTTTG
GCTTGGACTCCCTTAGGTGGAGAAATCATGTTTCGTGGAGGCGAGTCGAATGGATGGCGAG
GGCCAGTTAACTCTGACCGGCCAGCTCGGGGACGTGATGAAGGAGTCCGCCACCTCGCT
ATCAGCTGGCTCCGCAGCAACGCAAGAAGTACCAGCTGACCAATGCTTTTGAAGTTTT
GATCTTTTGACAACACAGACATCCATCTGCACTTCCCAGCTGGAGCTGTCACAAAAGAT
GGACCATCTGCTGGAGTTACCATAGTAACCTGTCTCGCCTCACTTTTTAGTGGCGGCTG
GTACGTTCCAGATGTAGCCATGACTGGAGAAATTACACTGAGAGGTCTTGTCTTCCAGTG
GGTGAATTAAGACAAAGTGTGGCGGCACACAGAGCGGGACTGAAGCAAGTCATTATT
CCTCGGAGAAATGAAAAAGACCTTGAGGGAATCCCAGGCAACGTACGACAGGATTTAAGT
TTTGTACAGCAAGCTGCCTGGATGAGGTTCTTAATGCAGCTTTTGATGGTGGCTTTACT
GTCAAGACCAGACCTGGTCTGTTAAATAGCAAACCTGTAG

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Clone variation with respect to NM\_031490.2

<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_031490 unedited TTGAATCCGATTCTATAGGCGGCCGCAATTCGCACGAGGGGGTCTGAGGTTTGGT ACTGCGGGGAGGCGGGGGCAGCTGTCTGTCTGGCTCTTTTACAGCCCCAGTGCGA AAGGCTGCCAGCATGTCATCAGTGAGCCCCATCCAGATCCCCAGTCGCCTCCCGCTGCTG CTCACCCACGAGGGCGTCTGCTGCCCGGCTCCACCATGCGCACCAGCGTGGACTCGGCC CGCAACCTGCAGCTGGTGGGAGCCGCTTCTGAAGGGCAGTCGCTGCAAAGCACCATC CTGGGCGTCATCCCCAACACGCGCTGACCCCGCCAGCGACGCGCAGGACCTGCCCGCGTG CACAGGATTGGCACAGCTGCACTGGCCGTTTCAGGTTGTGGGCAGTAACTGGCCCAAGCC CACTACACTCTGTTGATTACAGGCTATGCCGTTTCCAGATTGTACAGGTCTTAAAAGAG AAGCCATATCCCATTGCTGAAGTGGAGCAGTTGGACCGACTTGAGGAGTTTCCCAACACC TGTAATAAGAGGAGGAGCTAGGAGAACTATCAGAGCAGTTTTACAAATATGCAGTACAA TTGTTGAAATGTTGGATATGTCTGTCCCTGCAGTTGCTAAATTGAGACGCTTTTAGAT AGTCTTCAAGGGAAGCTTTACCAGACATCTTGACATCAATTATCCGAACAAGCACANAG AGAAATCCAGATTNTAGATGCTGTGAGCCTAGAGGAGCGTTCAAGATGACTATACCAC TGCTTGTGAGACANNATGAAGGCCCTGAATTGCTTCAAAAACAGAAACCCCAAGCAGAG ATGATAAGAAGGTTATAGCCATACGCCCTATTTAGAGAATACACTATCT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_031490
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_031490.2</a></u> , <u><a href="#">NP_113678.2</a></u>
<b>RefSeq Size:</b>	4342 bp
<b>RefSeq ORF:</b>	2559 bp
<b>Locus ID:</b>	83752
<b>UniProt ID:</b>	<u><a href="#">Q86WA8</a></u>
<b>Cytogenetics:</b>	16q12.1
<b>Domains:</b>	Lon_C, AAA, AAA
<b>Protein Families:</b>	Druggable Genome, Protease

**Gene Summary:**

In human, peroxisomes function primarily to catalyze fatty acid beta-oxidation and, as a by-product, produce hydrogen peroxide and superoxide. The protein encoded by this gene is an ATP-dependent protease that likely plays a role in maintaining overall peroxisome homeostasis as well as proteolytically degrading peroxisomal proteins damaged by oxidation. The protein has an N-terminal Lon N substrate recognition domain, an ATPase domain, a proteolytic domain, and, in some isoforms, a C-terminal peroxisome targeting sequence. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jan 2017]

Transcript Variant: This variant (1) represents the longest transcript and encodes 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.