

## Product datasheet for SC118674

### LOX (NM\_002317) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LOX (NM_002317) Human Untagged Clone
Tag:	Tag Free
Symbol:	LOX
Synonyms:	AAT10
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118674 sequence for NM_002317 edited (data generated by NextGen Sequencing)

```

ATGCGCTTCGCCTGGACCGTGTCTCTGCTCGGGCCTTTGCAGCTCTGCGCGCTAGTGCAC
TGCGCCCTCCCGCCCGCGGCAACAGCAGCCCCGCGGAGCCCGCGGGCTCCGGGC
GCCTGGCGCCAGCAGATCCAATGGGAGAACAACGGGCAGGTGTTAGCTTGTGAGCCTG
GGCTCACAGTACCAGCCTCAGCGCCGCGGGACCCGGGCGCCCGTCCCTGGTGCAGCC
AACGCCTCCGCCAGCAGCCCCGACTCCGATCCTGCTGATCCGCGACAACCGCACCCGC
GCGGCGGAACGCGGACGGCCGGCTCATCTGGAGTCACCGCTGGCGCCCCAGGCCACC
GCCCGTCACTGGTTCCAAGCTGGCTACTCGACATCTAGAGCCCGAAGCTGGCGCCTCG
CGCGCGGAGAACCAGACAGCGCCGGGAGAAGTTCTGCGCTCAGTAACCTGCGGCCGCC
AGCCGCGTGGACGCATGGTGGGCGACGACCCTTACAACCCTACAAGTACTCTGACGAC
AACCCTTATTACAATACTACGATACTTATGAAAGGCCAGACCTGGGGGAGGTACCGG
CCCGGATACGGCACTGGCTACTTCCAGTACGGTCTCCAGACCTGGTGGCCGACCCTAC
TACATCCAGGCGTCCACGTACGTGCAGAAGATGTCCATGTACAACCTGAGATGCGCGGG
GAGGAAAAGTGTCTGGCCAGTACAGCATACAGGGCAGATGTCAGAGATTATGATCACAGG
GTGCTGCTCAGATTTCCCAAAGAGTGAAAAACCAAGGGACATCAGATTTCTTACCCAGC
CGACCAAGATATCCTGGGAATGGCACAGTTGTCATCAACATTACCACAGTATGGATGAG
TTCAGTCTGCTTGAAGACACATCCTGTGACTATGGCTACCACAGGCGATTTGATGT
ACTGCACACACAGGGATTGAGTCCTGGCTGTTATGATACCTATGGTGCAGACATAGAC
TGCCAGTGGATTGATATTACAGATGTAACCTGGAACCTATATCCTAAAGGTCAGTGTA
AACCCAGCTACCTGGTCTGAACTGACTATACCAACAATGTTGTGCGCTGTGACATT
CGCTACACAGGACATCATGCGTATGCCTCAGGCTGCACAATTTACCCTATTAG

```

Clone variation with respect to NM\_002317.5



[View online »](#)

**5' Read Nucleotide Sequence:**

```
>OriGene 5' read for NM_002317 unedited
GTCAGATTTGTAACGACTTCACTATAGGCGGCCCGCAATTCGCACGAGGCAGACACTG
CCCCGCTCTCCGGGACTGCCGCGCCGCTCCCCGTTGCCCTCCAGGACTGAGAAAGGGGAAA
GGGAAGGGTGCCACGTCCGAGCAGCCGCTTACTGGGGAAGGGTCTGAATCCCACCTT
GGCATTGCTTGGTGGAGACTGAGATACCCGTGCTCCGCTCGCTCCTTGGTTGAAGATTT
CTCCTTCCCTCACGTGATTTGAGCCCCGTTTTTATTTTCTGTGAGCCACGTCCTCCTCGA
GCGGGGTCAATCTGGCAAAGGAGTGATGCGCTTCGCTTGACCGTGTCTCCTGCTCGGGC
CTTTGCAGCTCTGCGCGCTAGTGCACTGCGCCCCCTCCCGCCGCCCAACAGCAGCCCC
CGCGCAGCCGCCGCGGCTCCGGGCGCCTGGCGCCAGCAGATCCAATGGGAGAACCAACG
GGCAGGTGTTAGCTTGTGAGCCTGNGCTCACAGTACCAGCCTCAGCGCCGCCGGGACC
CGGGCGCCGCGTCCCTGGTGCAGCCAACGCTCCGCCAGCAGCCCCGCACTCCGATCC
TGCTGATCCGCGACAACCGCACCCGCGGCGCGAACGCGGACGGCCGGCTCATCTGGAG
TCACCGCTGGCCGCCAGGCCACCGCCGCTACTGGTCCAAGCTGCCTACTCGACAT
CTAGAGCCCCGGAAGCTGGCGCCTCGCGCGCCGAGACCAGACAGCCCGGGAGAAGT
TCCTGCGCTCAGTAACCCGCGGCCGCCAACCGCGTGGACGGCATGTTGGGCCGACGACC
CTTACAACCCCTACAAGTACTCTTGACGACAACCTTTTATACCACTTACTACGATACTC
ATTGAAAGGCCCAACCTGGGGGCCAGTCCCCGGCCCC
```

**3' Read Nucleotide Sequence:**

```
>OriGene 3' read for NM_002317 unedited
GGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTGAAGATCAAATATGTAATTAC
AGAATTGAAACACTGTGTTAATTCACAAAGTGATGAAATAATAAACATTAATAATTTCC
CAAGTAATGATGACTTAAGCGTTCAAAATCCAGTTATGTGCTTTGTTATTGAAAACAGTC
CAAACAAAAATTCTTTTGTGTTTTCTGTTCTCTTTTTTCAAATACATAAATCCTACTGA
AGTTAGTCTATTTTTTCCCACTTCAGAACACCAGGCACTGATTTATCCATTGGGAGTTTT
GCTTTGCCTTCTAATACGGTGAATTTGTGACGCTGAGGCATACGCATGATGTCCTGTGT
AGCGAATGTCACAGCGCACAAACATTGTTGGTATAGTCAGATTCAGGAACCAGGTAGCTGG
GGTTTACTGACCTTTAGGATATAGTTTCCAGGTTTTACATCTGTAATATCAATCCACT
GGCAGTCTATGTCTGCACCATAGGTATCATAACAGCCAGGACTCAATCCCTGTGTGTGTG
CAGTACATGCAAATCGCCTGTGGTAGCCATAGTCACAGGATGTGTCTTCAAGACAGAAAC
TTGCTCTGTGGCCTTCAGCCACTCTCCTCTGGGTGTTGGCATCAAGCAGGTCATAGTGGC
TAAACTCATCCACTGTGGTAATGCTGATGACAACTGTGCCATCCCAGGAATATCTTG
GTCGGCTGGGTAAGACATCTGATGCCCTTGGTTTTTCACTCTTTGGGGAATCTGAGCA
GCACCCTGTGATCATAATCTCTGACATCTGGCCTGTATGCTGTACTGGCCAGACAAGTTT
TCTCCGCCGCGCATCTCAAGTTGACATGGACATCTTCTGACGTACGTGAACGCCTGGTGT
ATTAGGGTTCGCCCCAGGCTGGGAAACCGCACTGGAAGTACCAGGCCGATTTCGGGCCG
CACCTGCCCCAGCTG
```

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_002317

**Insert Size:**

1870 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](mailto: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\\_002317.3](#), [NP\\_002308.2](#)

**RefSeq Size:** 1946 bp

**RefSeq ORF:** 1254 bp

**Locus ID:** 4015

**UniProt ID:** [P28300](#)

**Cytogenetics:** 5q23.1

**Domains:** Lysyl\_oxidase

**Protein Families:** Druggable Genome, Secreted Protein

**Gene Summary:**

This gene encodes a member of the lysyl oxidase family of proteins. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate a regulatory propeptide and the mature enzyme. The copper-dependent amine oxidase activity of this enzyme functions in the crosslinking of collagens and elastin, while the propeptide may play a role in tumor suppression. In addition, defects in this gene have been linked with predisposition to thoracic aortic aneurysms and dissections. [provided by RefSeq, Jul 2016]

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