

## Product datasheet for **MR226258**

### Alox15 (NM\_009660) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Alox15 (NM_009660) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Alox15
Synonyms:	12-LO; 12/15-LO; 15-LOX; Alox12l; L-12LO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR226258 representing NM\_009660  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGTGTCTACCGCATCCGCTCTCCACCGGGGACTCCGTGTACGCGGGCTCCAACAACGAGGTCTACC  
 TGTGGTTGATCGACAGCATGGGGAGGCATCTCTCGGGAAGCTGTTCCGACCCTGTCGGAACCTCGGAGGC  
 AGAATTC AAGGTGGATGTGT CAGAATACCTTGGGCCACTGCTGTTTGTGAGAGTGCAGAAATGGCATTAT  
 CTCAAAGAGGACGCTGTTCTGCAACTGGATTCTGTGAAGGGCCCCGGAGACCAGGGATCGGAGTACA  
 CGTTCCCTGTTACCGATGGGTT CAGGGCACCAGCATCCTGAACCTCCCTGAGGGCACTGGCTGCACCGT  
 GGTTGAAGACTCTCAAGGCTGTT CAGGAACCACAGGGAGGAGGAACTGGAAGAAAGGAGGAGTCTGTAC  
 AGGTGGGCAACTGGAAGGATGGCACAATCCTGAACGTGGCGGACCAGTATCTCTGACCTCCCTGTAG  
 ACCAGCGATTTTCGAGAGGACAAAAGACTTGAATTTGAAGCTT CACAGTTCTGGGGACAATGGACACCGT  
 TATTAACTCCCTAAAAACTGTGACCTGCTGAAAAGCCTAGATGACTTCAACTATGTTTCAAGAGT  
 GGCCACACCAAGATGGCTGAGCGGGTTCGAAAACCTCGAAAAGAGGATGCTTTCTTTGGGTACCAGTTTC  
 TCAATGGTGCTAACCCCATGGTGCTGAAGCGGTCTACTTGTCTCCCTGCCCGCTGGTATTCCTCCGGG  
 GATGGAGAAGCTACAGGCCAGCTGGATGAGGAGCTCAAGAAAGGCACTCTGTTTGAAGCGGATTTCTTC  
 CTTCTGGATGGGATCAAGGCCAATGTCATCCTTTGTAGTCAGCAGTACCTGGCTGCCCCCTCGTCATGC  
 TGAAGTGCAGCCGATGGGCAACTCTTGCCATAGCCATCCAGCTCGAACTGCCAAAACCTGGGTCTAC  
 CCCACCGCGATTTT CAGCCCTGGATCCCCAATGGACTGGCTCCTGGCCAAATGCTGGGTCCGAAGC  
 TCAGACTTACAGCTT CATGAGCTACAGGCTCATCTTCTGAGGGGACACTTGGTGGCTGAGGTCTTTGCTG  
 TGGCCACCATGAGGTGCCTGCCCTCCGTGCACCCTGTTTTTAAGCTTCTAGTTCCCTCACCTACTACAC  
 CATGGAAATCAATGTCCGGGCCAGGAGCGACCTGATCTCAGAGAGAGGCTTTTTTGACAAGGTGATGAGC  
 ACAGGTGGAGGAGGCCACCTGGATCTTCTCAAGCAAGCTGGAGCCTTCTGACCTACAGCTCATTGTGTC  
 CCCCTGATGACTTGGCTGAGCGAGGACTCCTGGATATTGACACTTGCTTCTATGCTAAAGATGCCCTGCA  
 GCTCTGGCAAGTCATGAATCGGTACGTGGTGGGAATGTTTCGATCTCTACTACAAGACCGACCAAGCTGTT  
 CAGGATGACTATGAACTGCAGAGCTGGTGTCAAGAGATCACTGAGATTGGGTTGCAAGGTGCCAGGACA  
 GAGGCTTCCCACCTCCCTCCAGTCCCGGGCTCAGGCTTGCCACTTCATACCATGTGCATCTTCACATG  
 CACTGCGCAGCACTCTTCCATCCATCTTGCCAGCTGGATTGGTTCTACTGGGTTCTAATGCACCCTGC  
 ACCATGCGGCTGCCACCCTAAAACCAAGGACGCGACGATGGAGAAGCTGATGGCGACGCTGCCAATC  
 CTAATCAGTCTACTCTCCAGATAAATGTCGTTTGGCTCCTGGGCAGACGCCAGGCTGTTATGGTGCCCT  
 GGGCCAGCATT CAGAGGAACACTTCCAAACCCTGAGGCCAAAGCTGTGCTGAAGAAGTTCAGAGAGGAG  
 CTGGCTGCCTTGATAAGGAAATTGAGATTCGTAACAAGAGCTTGGACATACCTTATGAGTACCTGCGGC  
 CCAGCCTGGTAGAAAACAGCGTGCCATA

**ACGCGT**ACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR226258 representing NM\_009660  
 Red=Cloning site Green=Tags(s)

MGVYRIRVSTGDSVYAGSNNEVYLWLIQHGAEASLGKLFRCRNSEAEFKVDVSEYLGPLL FVRVQKWHY  
 LKEDAWFCNWISVKGPGDQGSEYTFPCYRWVQGT SILNLP EGTGCTVVEDSQGLFRNHREEELEERRSLY  
 RWGNWKGDTILNVAATSISDLPVDQRFREDKRLEFEASQVLGMDTVINFPKNTVTCWKSLLDDFNVYFKS  
 GHTKMAERVNRNSWKEDAFFGYQFLNGANPMVLKRSTCLPARLVFPPGMEKLQAQLDEELKKGTLFEADFF  
 LLDGIKANVILCSQQYLAAPLVMLKLQPDGQLPIA IQLEL PKTGSTPPP IFTPLDPPMDWLLAKCWVRS  
 SDLQLHELQAHLRLRGLVAE VFAVATMRCLPSVHPVFKLLVPHLLYTMEINVRARSDLISERGFDFKVM S  
 TGGGGHLDLLKQAGAF LTYSSL CPPDDL AERGLLDIDT C FYAKDALQLWQVMNRYVVG MFDLYYKTDQAV  
 QDDYELQSWCQEITEIGLQGAQDRGFPTSLQ SRAQACHF ITMCI FTCTAQHSSIH LQGLDWFYWPV NAPC  
 TMRLPPPKTKDATMEKLMATLPNPNQSTLQ INVVWLLGRRQAVM VPLGQHSEEHFPNPEAKAVLKKFREE  
 LAALDKIEIRNKSLDIPYEYLRPSLVENSVAI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9036\\_e11.zip](https://cdn.origene.com/chromatograms/mm9036_e11.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_009660

**ORF Size:** 1989 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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_009660.3](#), [NP\\_033790.3](#)

**RefSeq Size:** 2414 bp

**RefSeq ORF:** 1992 bp

**Locus ID:** 11687

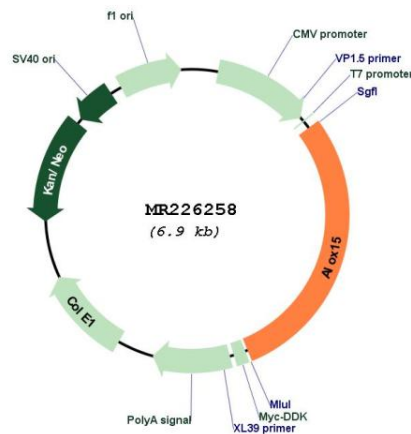
**UniProt ID:** [P39654](#)

**Cytogenetics:** 11 42.99 cM

**MW:** 75.9 kDa

**Gene Summary:**

Non-heme iron-containing dioxygenase that catalyzes the stereo-specific peroxidation of free and esterified polyunsaturated fatty acids generating a spectrum of bioactive lipid mediators. Converts arachidonic acid into 12-hydroperoxyeicosatetraenoic acid/12-HPETE and 15-hydroperoxyeicosatetraenoic acid/15-HPETE. Also converts linoleic acid to 13-hydroperoxyoctadecadienoic acid. May also act on (12S)-hydroperoxyeicosatetraenoic acid/(12S)-HPETE to produce hepoxilin A3. Probably plays an important role in the immune and inflammatory responses. Through the oxygenation of membrane-bound phosphatidylethanolamine in macrophages may favor clearance of apoptotic cells during inflammation by resident macrophages and prevent an autoimmune response associated with the clearance of apoptotic cells by inflammatory monocytes. In parallel, may regulate actin polymerization which is crucial for several biological processes, including macrophage function. May also regulate macrophage function through regulation of the peroxisome proliferator activated receptor signaling pathway. Finally, it is also involved in the cellular response to IL13/interleukin-13. In addition to its role in the immune and inflammatory responses, may play a role in epithelial wound healing in the cornea maybe through production of lipoxin A4. May also play a role in endoplasmic reticulum stress response and the regulation of bone mass.[UniProtKB/Swiss-Prot Function]

**Product images:**

Circular map for MR226258