

Product datasheet for **MG226258**

Alox15 (NM_009660) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alox15 (NM_009660) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Alox15
Synonyms:	12-LO; 12/15-LO; 15-LOX; Alox12l; L-12LO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG226258 representing NM_009660
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGTGTCTACCGCATCCGCTCTCCACCGGGGACTCCGTGTACGCGGGCTCCAACAACGAGGTCTACC
 TGTGGTTGATCGGACAGCATGGGGAGGCATCTCTCGGGAAGCTGTTCCGACCCTGTCGGAACCTCGGAGGC
 AGAATTAAGGTGGATGTGTGAGAAATACCTTGGGCCACTGCTGTTTGTGAGAGTGCAGAAATGGCATTAT
 CTCAAAGAGGACGCTGTTCTGCAACTGGATTCTGTGAAGGGCCCCGGAGACCAGGGATCGGAGTACA
 CGTTCCCTGTTACCGATGGGTTTCAAGGCACCAGCATCCTGAACCTCCCTGAGGGCACTGGCTGCACCGT
 GGTGAAGACTCTCAAGGCTGTTCAAGAACACAGGGAGGAGAACTGGAAGAAAGGAGGAGTCTGTAC
 AGGTGGGCAACTGGAAGGATGGACAATCCTGAACGTGGCGCAACCAGTATCTCTGACCTCCCTGTAG
 ACCAGCGATTTTCGAGAGGACAAAAGACTGAATTTGAAGCTTACAGGTTCTGGGGACAATGGACACCGT
 TATTAACCTCCCTAAAAACTGTGACCTGCTGAAAAGCCTAGATGACTTCAACTATGTTTTCAAGAGT
 GGGCACACCAAGATGGCTGAGCGGGTTCGAAACTCCTGGAAGAGGATGCTTTCTTTGGGTACCAGTTTC
 TCAATGGTGCTAACCCCATGGTGCTGAAGCGGTCTACTTGTCTCCCTGCCCGCTGGTATTCCTCCGGG
 GATGGAGAAGCTACAGGCCAGCTGGATGAGGAGCTCAAGAAAGGCACTCTGTTTGAAGCGGATTTCTTC
 CTTCTGGATGGGATCAAGGCCAATGTCATCCTTTGTAGTCAGCAGTACCTGGCTGCCCCCTCGTCATGC
 TGAAGCTGCAGCCGATGGGCAACTCTTGCCATAGCCATCCAGCTCGAAGTGCACCAAACTGGGTCTAC
 CCCACCGCGATTTTACGCCCCGGATCCCAATGGACTGGCTCCTGGCCAAATGCTGGGTCCGAAGC
 TCAGACTTACAGCTTATGAGCTACAGGCTCATCTTCTGAGGGGCACTTGGTGGCTGAGGCTTTTGCTG
 TGGCCACCATGAGGTGCCTGCCCTCCGTGCACCCCTGTTTTAAGCTTCTAGTTCCCTCACCTACTCTACAC
 CATGGAAATCAATGTCCGGGCCAGGAGCGACTGATCTCAGAGAGAGGCTTTTTTGACAAGGTGATGAGC
 ACAGGTGGAGGAGGCCACTGGATCTTCTCAAGCAAGCTGGAGCCTTCCCTGACCTACAGCTCATTGTGTC
 CCCCTGATGACTTGGCTGAGCGAGGACTCCTGGATATTGACACTTGCTTCTATGCTAAAGATGCCCTGCA
 GCTCTGGCAAGTCATGAATCGGTACGTGGTGGGAATGTTGATCTCTACTACAAGACCGACCAAGCTGTT
 CAGGATGACTATGAACTGCAGAGCTGGTGTCAAGAGATCACTGAGATTGGGTGCAAGGTGCCAGGACA
 GAGGCTTCCCACCTCCCTCCAGTCCCGGGCTCAGGCTTGCCACTTCATCACCATGTGCATCTTCACATG
 CACTGCGCAGCACTCTTCCATCCATCTTGCCAGCTGGATTGGTTCTACTGGGTTCTAATGCACCCTGC
 ACCATGCGGCTGCCACCCTACCACCAAGGACGCGACGATGGAGAAGCTGATGGCGACGCTGCCAATC
 CTAAATCAGTCTACTCTCCAGATAAATGTCGTTTGGCTCCTGGGCAGACGCCAGGCTGTTATGGTTCCCT
 GGGCCAGCATTACAGGAACACTTCCAAACCCTGAGGCCAAAGCTGTGCTGAAGAAGTTCAGAGAGGAG
 CTGGCTGCCTTGATAAGGAAATTGAGATTCGTAACAAGAGTTTGGACATACCTTATGAGTACCTGCGGC
 CCAGCCTGGTGGAAAACAGCGTGGCCATA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG226258 representing NM_009660
 Red=Cloning site Green=Tags(s)

MGVYRIRVSTGDSVYAGSNNEVYLWLIGQHGEASLGKLFRCRNSEAEFKVDVSEYLGPLL FVRVQKWHY
 LKEDAWFCNWISVKGPGDQGSEYTFPCYRWVQGT SILNLEPGTGCTVVEDSQGLFRNHREEELEERRSLY
 RWGNWKGDTILNVAATSI SDLPVDQRFREDKRLEFEASQVLGMDTVINFPKNTVTCWKSLLDDFNVYFKS
 GHTKMAERVRNSWKEDAFFGYQFLNGANPMVLKRSTCLPARLVFPPGMEKLQAQLDEELKKGTLFEADFF
 LLDGIKANVILCSQQYLAAPLVMLKLQPDGQLLP IAIQLELPKTGSTPPP IFTPLDPPMDWLLAKCWVRS
 SDLQLHELQAHLRLRHLVAEVF AVATMRLPSVHPVF KLLVPHLLYTMEINVRARSDLI SERGFFDKVMS
 TGGGGHLDLLKQAGAF LTYSSL CPPDDL AERGLLD IDTCFYAKDALQLWQVMNRYVVG MFDLYYKTDQAV
 QDDYELQSWCQEITEIGLQGAQDRGFPTSLQ SRAQACHF ITMCI FTCTAQHSSIHLGQLDWFYWPV NAPC
 TMRLPPPTTKDATMEKLMATLPNPNQSTLQ INVVWLLGRRQAVMVPLGQHSEEHFPNPEAKAVLKKFREE
 LAALDKIEIRNKSLDIPYEYLRPSLVENSVAI

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-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 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

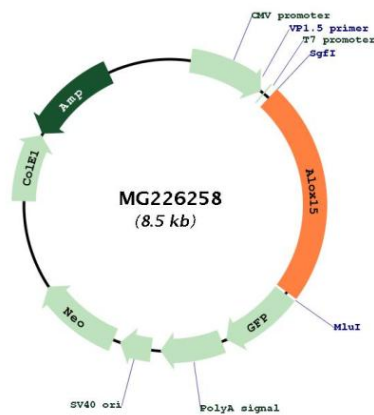
Locus ID: 11687

UniProt ID: [P39654](#)

Cytogenetics: 11 42.99 cM

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 MG226258