

Product datasheet for **MG227302**

Alox12 (NM_007440) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alox12 (NM_007440) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Alox12
Synonyms:	9930022G08Rik; Alox12p; P-12LO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>MG227302 representing NM_007440
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCCGCTACCGCTCCGTGTGGTCACTGGGCCTGGCTCTTCTCCGGATCCCTCAACCTAGTGCCTT
TGTGGCTGGTTGGGAGCACCGGAGGCCAAACTGGAGCTGCAACTGCGGCCAGCGCGGGCAAGGAGGA
GGAGTTTGACTTCGACGTTCCCGAGGACTTGGGGCCACTGCAGTTTGTGAAACTGCACAAACAGCACACA
GTTGTGGATGACGCTGGTTCTGCAACCTCATCACAGTTCAGGGGCCGGGACAAGTGCAGAGGCCGTGT
TTCCCTGCTACCGCTGGGTGCAGGGAGAGGGAATCCTGAGCCTCCCGAGGGGACAGCCCGCTGGCAGG
AGACAATGCCTTAGATGTCTCCAGAAGTATCGAGAAAAGGAAGTGAAGGAAAGACAACAGACCTACTGC
TGGGCCACCTGGAAGAAGGCTTACCTCAGACAATAGCAGCGGACTGTAAGGATGACCTTCTCCAATA
TGAGATTCATGAGGAGAAGAGACTGGACTTTGAATGGACGTTGAAGCGGGGTTCTGAAATGGCCCT
CAAACGTGTTTATACCCTCCTGAGAAGCTGGAACCATCTGGAAGACTTTGATCAGATCTTCTGGGCCAG
AAGAGTGCCTTGGCCGAGAAGGTTCAACAGTGTGGCAGGAAGATGAACTCTTTGGCTACCGATTCTCA
ATGGCGCAACCCCATGCTTTTGAGACGCTCCACCTCTGCCCCTCCAGACTGGTACTGCCCTCTGGGAT
GGAGGAGCTTCAAGCTCAGTTGGAGAAAGAACTCAAGAATGGATCCCTGTTTGAAGCTGACTTTATCCTG
CTGGATGGAATTCAGCTAATGTGATCCGAGGAGAACCACAGTACCTGGCTGCCCTCTTGTGATGCTGA
GGATGGACCCCGTGGGAAGCTGCTACCCATGGCTATCCAGATTCAGCCCCCTAACCCAGCTCCCCAGC
TCCAACACTGTTCTGCCCTCGGATCCTCCACTGCCTGGCTCTTGGCTAAGATCTGGTCCGAAATTC
GATTTCCAACGCAGGAGCTCCAATTCATTTGCTGAACACCCATCTGGTGGCTGAGGTCATCGCTGTTG
CCACCATGAGATGCCTCCAGGACTGCACCTATCTTCAAGCTCCTCGTCCACACATCCGTTACACTAT
GGAAATTAACACGGAAGCCGGACCCAGCTCATCTCAGATGGAGGAATATTTGATCAGGTAGTGAGCACA
GGTGGAGGCGCCATGTTGAGTTGCTTACTCGGGCAGTGGCTCAGCTGACTTACCACTCCCTCTGTCCCTC
CTGATGATCTGGCTAACCGAGGCCTGCTGAGAATCCCAAGTGTCTCTATGCTCGGGATGCTTTACAGCT
CTGGGAAGTCACTGCCAGGTATGTGAAGGGGATGGTCCATCTTCTTACCAGAGTATGATATTGTGAGG
GGAGACCCAGAGCTGCAGGCTGGTGTGCGGAGATCACTGAAGTGGGGCTGTGCCATGCCAGGACAGAG
GATTCCTGTCTCCTCCAGTCCCGGGCTCAGCTCTGCCATTTCTCACCATGTGTGTTTACATGCAC
TGCCAGCATGCTGCCATCAACCAGGGCCAGCTGGACTGGTATGGTTGGGTACCTAATGCTCCATGCACA
ATGAGGATGCCTCCGCCACCAGCAAGGACGACGTGACGATGGAGACCGTATGGGTGCTACCTGATG
TGCAAGAGCCTGTCTTACAGATGACTATCACATGGCACCTGGGTGCGCTGCAGCCAGACATGGTACCTCT
AGGACACCACACAGAAAATATTTCTCAGACCCAAAGACAAAGCTGTGCTCAGCCAATTCAGGAGAT
TTGGACAATTTGGAGAAAGAGATTACAGCCCGGAATGAGCAACTGACCTGCCTTATGAATACCTCAAGC
CCAGCCGATAGAGAACAGTATCACCATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG227302 representing NM_007440
 Red=Cloning site Green=Tags(s)

MGRYRVRVVTGAWLFSGSLNLRVLRWLVGEHREAKLELQLRPARGKEEFDVDPEDLGPLQFVKLHKQHT
 VVDDAWFCNLITVQPGTSAEAVFPCYRWVQEGILSLPEGARLAGDNALDVFKYREKELKERQQTTC
 WATWKEGLPQTI AADCKDDLPPNMRFHEEKRDLFEWTLKAGVLEMGLKRVYTLRLRSWNHLEDFDQIFWGO
 KSALAIEVHQVQWQEDLFGYQFLNGANPMLLRSTSLPSRLVLP SGMEELQAQLEKELKNGSLFEADFIL
 LDGIPANVIRGEPQYLAAPLVMLRMDPGKLLPMAIQIQPPNPSSPAPTLFLPSDPPPLAWLLAKIWRNS
 DFQLQELQFHLLNTHLVAEVI AVATMRCLPGLHPIFKLLVPHIRYTMINTRSRQQLISDGGIFDQVYST
 GGGGHVQLL TRAVAQLTYHSLCPPDDLNRGLLRIPSALYARDALQLWEVTARYVKGMVHLFYQSDDIVR
 GDPELQAWCREITEVGLCHAQDRGFVFSQSAQLCHFLTMCVFTCTAQHAAINQQLDWYGVWPNAPCT
 MRMPPTSKDDVTMETVMGSLPDVQKACLQMTITWHLGRLQPDMPVPLGHTEKYFSDPRTKAVLSQFQAD
 LDNLEKEITARNEQLDLPYEYLKPSRIENSITI

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_007440

ORF Size: 1989 bp

OTI Disclaimer: 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_007440.4](#), [NP_031466.2](#)

RefSeq Size: 2991 bp

RefSeq ORF: 1992 bp

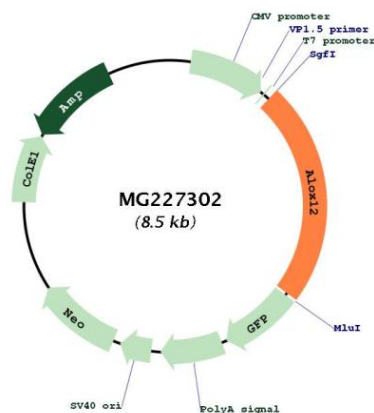
Locus ID: 11684

UniProt ID: [P39655](#)

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. Mainly converts arachidonic acid to (12S)-hydroperoxyeicosatetraenoic acid/(12S)-HPETE but can also metabolize linoleic acid. Has a dual activity since it also converts leukotriene A4/LTA4 into both the bioactive lipoxin A4/LXA4 and lipoxin B4/LXB4. Through the production of specific bioactive lipids like (12S)-HPETE it regulates different biological processes including platelet activation. It also probably positively regulates angiogenesis through regulation of the expression of the vascular endothelial growth factor. Plays a role in apoptotic process, promoting the survival of vascular smooth muscle cells for instance. May also play a role in the control of cell migration and proliferation.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG227302