

## Product datasheet for **MC220231**

### **Alox12 (NM\_007440) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Alox12 (NM_007440) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Alox12
Synonyms:	9930022G08Rik; Alox12p; P-12LO
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC220231 representing NM\_007440  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGCCCTACCGCTCCGTGTGGTCACTGGGCCTGGCTCTTCTCCGGATCCCTCAACCTAGTGCCTT  
 TGTGGCTGGTTGGGAGCACCGGAGGCCAACTGGAGCTGCAACTGCGGCCAGCGGGGCAAGGAGGA  
 GGAGTTTGACTTCGACGTTCCCGAGGACTTGGGGCCACTGCAGTTTGTGAACTGCACAAACAGCACACA  
 GTTGTGGATGACGCTGGTTCTGCAACCTCATCACAGTTCAGGGGCCGGGACAAGTGCAGAGGCCGTGT  
 TTCCCTGCTACCGCTGGGTGCAGGGAGAGGGAATCCTGAGCCTCCCGAGGGGACAGCCCGCTGGCAGG  
 AGACAATGCCTTAGATGTCTCCAGAAGTATCGAGAAAAGGAAGTGAAGGAAAGACAACAGACCTACTGC  
 TGGGCCACCTGGAAGAAGGCTTACCTCAGACAATAGCAGCGGACTGTAAGGATGACCTTCTCCAATA  
 TGAGATTCATGAGGAGAAGAGACTGGACTTTGAATGGACGTTGAAGCGGGGTTCTGAAATGGCCCT  
 CAAACGTGTTTATACCCTCTGAGAAGCTGGAACCATCTGGAAGACTTTGATCAGATCTTCTGGGCCAG  
 AAGAGTGCCTTGGCCGAGAAGGTTCAACAGTGTGGCAGGAAGATGAACTCTTGGTACCAGTTCTCTCA  
 ATGGCGCAACCCCATGCTTTTGGAGCGCTCCACCTCTGCCCCTCCAGACTGGTACTGCCCTCTGGGAT  
 GGAGGAGCTTCAAGCTCAGTTGGAGAAAGAACTCAAGAATGGATCCCTGTTTGAAGCTGACTTTATCCTG  
 CTGGATGGAATCCAGCTAATGTGATCCGAGGAGAACCACAGTACCTGGCTGCCCTCTTGTGATGCTGA  
 GGATGGACCCCGTGGGAAGCTGCTACCCATGGCTATCCAGATTCAGCCCCCTAACCCAGCTCCCCAGC  
 TCCAACACTGTTCTGCCCTCGGATCCTCCACTGCCTGGCTCTGGCTAAGATCTGGTCCGAAATTCA  
 GATTTCCAACGCAGGAGCTCCAATTCATTTGCTGAACCCATCTGGTGGCTGAGGTCATCGCTGTTG  
 CCACCATGAGATGCCTCCAGGACTGCACCTATCTTCAAGCTCCTGTTCCACACATCCGTTACACTAT  
 GGAAATTAACACGCGAAGCCGGACCCAGCTCATCTCAGATGGAGGAATATTTGATCAGGTAGTGAGCACA  
 GGTGGAGGCGCCATGTTGAGTTGCTTACTCGGGCAGTGGCTCAGCTGACTTACCACTCCCTCTGTCCCTC  
 CTGATGATCTGGCTAACCGAGGCTGCTGAGAATCCCAAGTGTCTCTATGCTCGGGATGCTTTACAGCT  
 CTGGGAAGTCACTGCCAGGTATGTGAAGGGGATGGTCCATCTTCTACCAGAGTATGATATTGTGAGG  
 GGAGACCCAGAGCTGCAGGCTGGTGTCCGGAGATCACTGAAGTGGGCTGTGCCATGCCAGGACAGAG  
 GATTCCCTGTCTCTCCAGTCCCGGGCTCAGCTCTGCCATTTCTCACCATGTGTGTTTTCACATGCAC  
 TGCCAGCATGCTGCCATCAACCAGGGCCAGCTGGACTGGTATGGTTGGGTACCTAATGCTCCATGCACA  
 ATGAGGATGCCTCCGCCACCAGCAAGGACGACGTGACGATGGAGACCGTATGGGGTGCCTACCTGATG  
 TGCAAGAGGCTGTCTTACAGATGACTATCACATGGCACCTGGGTGCCTGCAGCCAGACATGGTACCTCT  
 AGGACACCACAGAAAAATTTTCTCAGACCCAAAGCTGTGCTCAGCCAATTTCAAGCAGAT  
 TTGGACAATTTGGAGAAAGAGATTACAGCCCGAATGAGCAACTGACCTGCCTTATGAATACCTCAAGC  
 CCAGCCGATAGAGAACAGTATCACCAT**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-MluI
- ACCN:** NM\_007440
- Insert Size:** 1992 bp
- OTI Disclaimer:** 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).
- 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]  
Transcript Variant: This variant (1) encodes the longer isoform (1).