

## Product datasheet for **MR227302**

### Alox12 (NM\_007440) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Alox12 (NM_007440) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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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**ORF Nucleotide Sequence:**

>MR227302 representing NM\_007440  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

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**Protein Sequence:** >MR227302 representing NM\_007440  
 Red=Cloning site Green=Tags(s)

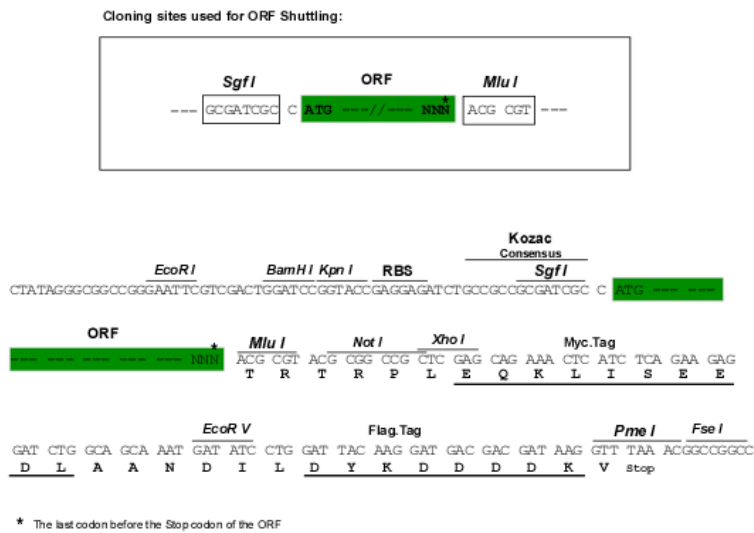
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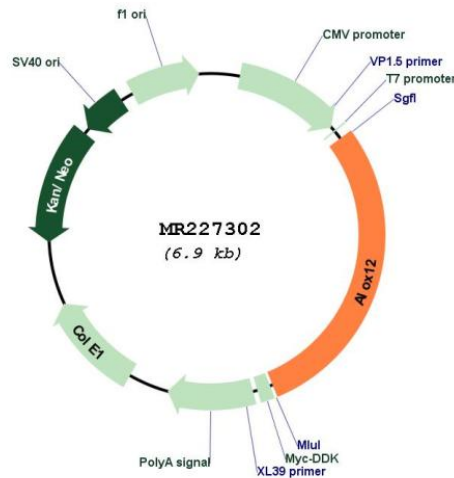
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**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9036\\_e04.zip](https://cdn.origene.com/chromatograms/mm9036_e04.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**



**Plasmid Map:**


**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\\_007440.5](#)

**RefSeq Size:** 2991 bp

RefSeq ORF: 1992 bp

Locus ID: 11684

UniProt ID: [P39655](#)

Cytogenetics: 11 42.99 cM

MW: 75.8 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. 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]