

## Product datasheet for **MR223970**

### Alox12b (NM\_009659) Mouse Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                        |
| Product Name:             | Alox12b (NM_009659) Mouse Tagged ORF Clone |
| Tag:                      | Myc-DDK                                    |
| Symbol:                   | Alox12b                                    |
| Synonyms:                 | 12R-; 12R-LOX; Alo; Aloxe2; e-LO; e-LOX2   |
| Mammalian Cell Selection: | Neomycin                                   |
| Vector:                   | pCMV6-Entry (PS100001)                     |
| E. coli Selection:        | Kanamycin (25 ug/mL)                       |



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ORF Nucleotide  
Sequence:

&gt;MR223970 ORF sequence

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCCACCTATAAAGTCAAGGTGGCCACGGGCACTGACTTCTTTTCGGGACGCTGGATTCAATTTAC  
TGACCATCGTGGGACCCAAGGAGAGAGCCATAAGCAGCGTTGAACCACTTTGGGAGAGACTTTGCCAC  
GGGGCGGTGGATGACTACACGGTACAGTGCCAGCAGGACCTGGGGGAGCTTATCATCATCCGTCTGCAC  
AAGGAGCCTATTCTTCTAGCCAAGGACCCCTGGTACTGCAACTATGTGCAGATCTGTGCTCCCGACT  
GCCGTGTCTACCACTTCCAGCTTACCAGTGGATGGATGGCTATGAGACCCTGGCACTCCGGGAGGCCAC  
AGGAAAGATAACAGCAGACGACACTCCCTATCCTTTTGAACACAGACAAGAAGAGATCAGAGCCAAG  
AAGGACTTCTACCACTGGAGGGTCTTTGTTCCCGCCTCCCAACTATGTGGATATCCCCAGTTACCATC  
CTCTCCCGACGGTCCGCAATCCAACCGCCTGAGTGGGATGGTTATATTCCCGGATCCCAATTCT  
CATCAACATTAAGGCTACCAGGTTCTTAACTCAAATCTTCGTTTCTCCTTCGTCAGACAGCCTCCTTC  
TTCTACCGCTAGGGCCATGGCGCTGGCTTCAAACGCTGGCTGGTGGATCGAAAACGCTCCTGGGA  
AGAGACTAAAGGACATTAAGAATATTTCCCTGCTACCAAGTCTGTGCTCAGAGTATGTGGCCGAGCA  
CTGGACAGAGGACAGCTTCTTTGGGTACCAGTACCTTAATGGTATTAACCCAGGCTGATCCGAAGATGT  
ACACAGATCCCAGACAAATCCCAGTCACAGATGAAATGGTGGCCCCATTCCTGGGTGAAGGAACATGCC  
TGCAAGCAGAGCTGGAGAGGGGGAATATTTACCTGGCAGACTACCGCATCCTGGATGGCATCCCCACCGT  
GGAGCTCAATGGTCAGCAGCAGCATCACTGTGCCCGATGTGCTTGTGCACTTTGGTCTGATGGCAAC  
ATGATGCCCATCGCCATTCAGCTCAGTCAGACTCCTGGCCTGATTGTCTATCTTCTGCCGAATGATT  
CTGAGTGGGACTGGCTGTTGGCTAAAACGTGGTGGCTACGCGGAGTTCTACAGCCACGAGCCGTGGC  
ACACTTGTGGAGAGCCACCTATCGGGGAAGCTTTCTGCTTGGCCCTCCTGAGGAACCTGCCCATGTGC  
CACCCCTGTATAAGCTTCTCATCCCTCACTCGGTACAACGTCCAGATCAATAGCATTGGGCGGGCCC  
TCCTTCTCAACAAGGGAGGTCTCTGCGCAGGGCCATGTCCTGGGCTAGAGGGCTTCGCACAGGTGAT  
GGTCCGGGTCTGTCTGAGCTCACCTACAAAAGCCTCTGCATTCCAACGACTTTGTGGAGCGGGGTC  
CAGGACCTGCCTGGGTATTTCCGTGATGACAGCCTGGCGGTGGTACGCGATGGAGAGGTACGTGA  
CAGAGATCATCACTTATTATTACCCAAATGACGCAGCCGTAGAGGGCGACCCGAACTGCAGTGTGGT  
ACAGGAGATATCAAGGAGTGTCTCCTGGGCGTGAGAGCTCAGGCTTCCCACCTGCTTGCAGACTATA  
CCTGAGCTGATCGAATACGTACAATGGTCATGTACACCTGCTCGCCAGGCATGCAGCTGTCAACTCAG  
GCCAGCTGGAGTACACCTTTGGATGCCAACTTCCCATCATCCATGAGGAACCCACCGATGCAGACCAA  
GGGGCTAACTACTCTGCAGACATACATGGACACTTCCGGACGTGAAGACCACATGCATTGTGCTCTTG  
GTGCTCTGGACTCTGTGCGGAGCCTGATGACAGGCGGCCGCTTGGCCACTTCCAGACATCCATTTTG  
TGGAGGAGGGTCTCGGAGGAGTATTGAGGCTTTTCGTCAGAACCTCAACCAGATCTCTCACAACATCCG  
ACAGCGCAATAAGTGCCTCACCTCCCGTACTACTACCTGGACCCAGTGTGATTGAGAACAGTATTTCC  
ATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR223970 protein sequence  
 Red=Cloning site Green=Tags(s)

MATYKVKVATGTDFFSGTLDSISLTIIVGTQGESHKQRLNHFGRDFATGAVDDYTVQCQDGLGELIIIRLH  
 KEPHSFLAKDPWYCNYVQICAPDCRVYHFPAYQWMDGYETLALREATGKITADDTLPILLEHRQEEIRAK  
 KDFYHWRVFPGLPNYVDIPSYHPPRRRCRNPNRPEWDGYIPGFPIILINIKATRFNLNLRFSFKTASF  
 FYRLGPMALAFKLRGLVDRKRSWKRLKDIKNIFPATKSVVSEYVAEHWTESSFFGYQYLNGLINPGLIRRC  
 TQIPDKFPVTDEMVPFLGEGTCLQAELERGNILADYRILDGIPVELNGQQQHHCAPMCLLHFGPDGN  
 MMPIAIQLSQTPGDCPIFLPNDEWDWLLAKTWVRYAEFYSHEAVAHLLSHLIGEAFLALLRNLPMC  
 HPLYKLLIPHTRYNVQINSIGRALLLNKGGLSARAMSLGLEGAQVMVRGLSELYKSLCIPNDFVERGV  
 QDLPGYYFRDDSLAVWYAMERYVTEIITYYPNDAAVEGDPELQCWVQEIFKECLLGRESSGPTCLRTI  
 PELIEYVTVMYTCSARHAAVNSGQLEYTSWMPNFPSSMRNPPMQTKGLTTLQTYMDTLPDVKTTCCIVLL  
 VLWTLCREPDDRRPLGHFPDIHFVEEGPRRSIEAFRQNLNQISHNIRQRNKCLTLPYYYLDPVLIENSIS  
 I

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_009659

**ORF Size:** 2106 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\\_009659.1](#), [NM\\_009659.2](#), [NP\\_033789.1](#)

**RefSeq Size:** 2347 bp

**RefSeq ORF:** 2106 bp

**Locus ID:** 11686

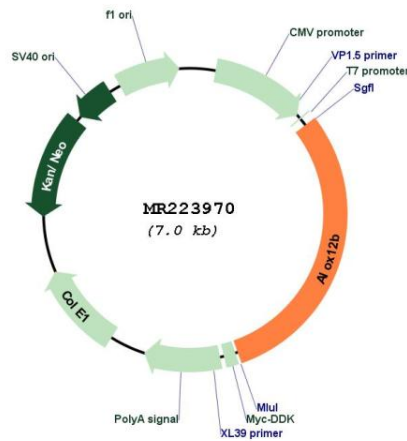
**UniProt ID:** [O70582](#)

**Cytogenetics:** 11 42.38 cM

**MW:** 80.6 kDa

**Gene Summary:** This gene encodes an enzyme involved in the conversion of arachidonic acid to 12R-hydroxyeicosatetraenoic acid. Mutations in this gene can prevent the formation of the epidermal permeability barrier and cause an ichthyosiform phenotype. [provided by RefSeq, Sep 2015]

### Product images:



Circular map for MR223970