

## Product datasheet for **SC304947**

### **ALOXE3 (NM\_021628) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ALOXE3 (NM_021628) Human Untagged Clone
Tag:	Tag Free
Symbol:	ALOXE3
Synonyms:	ARCI3; E-LOX; eLOX-3; eLOX3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_021628, the custom clone sequence may differ by one or more nucleotides

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ATGGCAGTGTACCGCTGTGTGACCCTGGTCCCTACCTGAGGGCCGGCACACTGGACAACATCTCTG
TCACACTGGTGGCAGCTGTGGTAAAAGCCCCAAGCAGCGGCTAGATCGAATGGGCAGGGACTTCGCCCC
TGGATCGGTACAGAAGTACAAGGTGCGTTGCACAGCGGAGCTGGGTGAGCTCTTGTCTGCGTGTACAC
AAGGAGCGCTACGCTTTCTCCGCAAGGACTCTTGGTACTGTAGCCGCATCTGTGTACCGAACCGGATG
GTAGTGTATCCCACTTCCCTGTATCAGTGGATTGAAGGCTACTGCACCGTGGAGCTGAGGCCAGGAAC
AGCAAGAATAATTTGTCAGGACTCTTCCCTCCTCCTGGATCACAGGACACGGGAGCTCCGGGCCGA
CAAGAATGCTACCGCTGGAAGATCTATGCCCTGGCTTCCCTGCATGGTAGACGTCAACAGCTTTCAGG
AGATGGAGTCAGACAAGAAATTTGCCTTGACAAAGACGACAACCTGTGTAGACCAGGGTGACAGCAGTGG
GAATCGGTACCTGCCGGCTTCCCATGAAAATTGACATCCCATCCCTGATGTACATGGAGCCCAATGTT
CGATACTAGCCACCAAGACGATCTCGTGTCTTCAATGCCATCCCTGCGTCTTGGGAATGAAGCTTC
GAGGGCTGTTGGATCGCAAGGGCTCCTGGAAGAAGCTGGATGACATGCAGAACATCTTCTGGTGCCATAA
GACCTTACAGACAAGTATGTACAGAGACTGGTGTGAAGATCACTTCTTTGGGTACCAGTACCTGAAT
GGTGTCAATCCCCTCATGCTCCACTGCATCTCTAGCTTGCCAGCAAGCTGCCTGTACCAATGACATGG
TGGCCCCCTTGCTGGGACAGGACACATGCCTGCAGACAGAGCTAGAGAGGGGGAACATCTTCTAGCGGA
CTACTGGATCCTGGCGGAGGCCCCACCCACTGCCTAAACGGCCGCCAGCAGTACGTGGCCGCCCCACTG
TGCCTGTGTGGCTCAGCCCCAGGGGGCGCTGGTGCCTTGCCATCCAGCTCAGCCAGACCCCGGGC
CTGACAGCCCCATCTTCTGCCACTGACTCCGAATGGGACTGGTGTGGCCAAAGACGTGGGTGCGCAA
CTCTGAGTTCCTGGTGCACGAAAACAACACGCACCTTCTGTGCACGCATTTGTGTGCGAGGCCTTCGCC
ATGGCCACGCTGCGCCAGCTGCCGCTCTGCCACCCATCTACAAGCTCCTACTCCCCACACTCGATACA
CGCTGCAGGTGAACACCATCGCGAGGGCCACGCTGCTCAACCCGAGGGCCTCGTGGACCAGGTACGTC
CATCGGGAGGCAAGGCCTCATCTACCTCATGAGCACGGGCTGGCCCACTTACCTACACCAATTTCTGC
CTTCCGGACAGCCTGCGGGCCGCGGCTCCTGGCTATCCCAACTACCACTACCGAGACGACGGCCTGA
AGATCTGGGCGGCCATTGAGAGCTTTGTCTCAGAAATCGTGGGCTACTATTATCCAGTGACGCATCTGT
GCAGCAGGATTCGGAGCTGCAGGCCTGGACTGGCGAGATTTTGTCTCAGGCGTTCCTGGCCGGGAAAGC
TCAGGTTTCCCAAGCCGGCTGTGCACCCAGGAGAGATGGTGAAGTTCCTCACTGCAATCATCTTCAATT
GCTCTGCCAGCACGCTGCTGTCAACAGTGGGCAGCATGACTTTGGGGCCTGGATGCCCAATGCTCCATC
ATCCATGAGGCAGCCCCACCCAGACCAAGGGGACCACCACCTGAAGACTTACCTAGACACCCTCCCT
GAAGTGAACATCAGCTGTAAACAACCTCCTCTTCTGTTGGTTAGCCAAGAACCAAGGACCAGAGGC
CCCTGGGCACCTACCCAGATGAGCACTTACAGAGGAGGCCCGAGGCGGAGCATCGCCGCTTCCAGAG
CCGCTGGCCAGATCTCAAGGGACATCCAGGAGCGGAACCAGGGTCTGGCACTGCCCTACACCTACCTG
GACCTCCCTCATTGAGAACAGCGTCTCCATCTAA
    
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**Restriction Sites:** Please inquire

**ACCN:** NM\_021628

**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](mailto: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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_021628.1](#), [NP\\_067641.1](#)

**RefSeq Size:** 3362 bp

**RefSeq ORF:** 2136 bp

**Locus ID:** 59344

**UniProt ID:** [Q9BYJ1](#)

**Cytogenetics:** 17p13.1

**Protein Families:** Druggable Genome

**Gene Summary:**

This gene is a member of the lipoxygenase family, which are catabolized by arachidonic acid-derived compounds. The encoded enzyme is a hydroperoxide isomerase that synthesizes a unique type of epoxy alcohol (8R-hydroxy-11R,12R-epoxyeicosa-5Z,9E,14Z-trienoic acid) from 12R-hydroperoxyeicosatetraenoic acid (12R-HPETE). This epoxy alcohol can activate the nuclear receptor peroxisome proliferator-activated receptor alpha (PPARalpha), which is implicated in epidermal differentiation. Loss of function of the enzyme encoded by this gene results in ichthyosis, implicating the function of this gene in the differentiation of human skin. This gene is part of a cluster of lipoxygenase genes on 17p13.1. Mutations in this gene result in nonbullous congenital ichthyosiform erythroderma (NCIE). Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009]

Transcript Variant: This variant (2) represents use of an alternate promoter and 5' UTR and uses a downstream start codon, compared to variant 1. The resulting isoform (2) has a shorter N-terminus, compared to isoform 1.