

Product datasheet for **SC300121**

12 Lipoxygenase (ALOX12) (NM_000697) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	12 Lipoxygenase (ALOX12) (NM_000697) Human Untagged Clone
Tag:	Tag Free
Symbol:	12 Lipoxygenase
Synonyms:	12-LOX; 12S-LOX; LOG12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

Fully Sequenced ORF: >NCBI ORF sequence for NM_000697, the custom clone sequence may differ by one or more nucleotides

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ATGGGCCGCTACCGCATCCGCGTGGCCACCGGGGCTGGCTCTTCTCCGGTCTGTACAACCGCGTGCAGC
TTTGGCTGGTCGGGACCGCGGGGAGGCGGAGCTGGAGCTGCAGCTGCGGCCCGCGGGGCGAGGAGGA
GGAGTTTGATCATGACGTTGCAGAGGACTTGGGCTCCTGCAGTTCGTGAGGCTGCGCAAGCACCCTGG
CTGGTGGACGACGCGTGGTTCTGCGACCGCATCACGGTGCAGGGCCCTGGAGCCTGCGCGGAGGTGGCCT
TCCCGTGTACCGCTGGGTGCAGGGCGAGGACATCCTGAGCCTGCCCGAGGGCACCGCCCGCTGCCAGG
AGACAATGCTTTGGACATGTTCCAGAAGCATCGAGAGAAGGAACTGAAAGACAGACAGCAGATCTACTGC
TGGGCCACCTGGAAGGAAGGTTACCCCTGACCATCGCTGCAGACCGTAAGGATGATCTACTCCAAATA
TGAGATTCCATGAGGAGAAGAGGCTGGACTTTGAATGGACACTGAAGGCAGGGGCTCTGGAGATGGCCCT
CAAACGTGTTTACACCCTCCTGAGCTCCTGGAAGTGCCTAGAAGACTTTGATCAGATCTTCTGGGGCCAG
AAGAGTGCCTGGCTGAGAAGGTTGCCAGTGTGGCAGGATGATGAGTTGTTGAGTACCAGTTCTCTCA
ATGGTGCCAAACCCATGTGTGTTGAGACGCTCGACCTCTGCCCCTCAGGCTAGTGTGCCCTCGGGGAT
GGAAGAGCTTACAGCTCAACTGGAGAAAGAACTTCAGAAATGGTTCCCTGTTTGAAGCTGACTTCATCCTT
CTGGATGGAATCCAGCCAACGTGATCCGAGGAGAGAAGCAATACCTGGCTGCCCCCTCGTTATGCTGA
AGATGGAGCCCAATGGAAGCTGCAGCCATGGTCCATCCAGATTCAGCCTCCCAACCCAGCTCTCCAAC
CCCAACTGTTCTGCCCTCAGACCCCACTTGCCTGGCTCCTGGCAAAGTCTGGGTCCGAAATTCA
GATTTCCAACGCACGAGATCCAGTATCACTTGTGAACACTCACCTGGTGGCTGAGGTGATCGTGTGC
CCACATGCGGTGCCCTCCAGGACTGCACCCATCTTCAAGTTCCTGATCCCCATATCCGCTACACCAT
GGAAATCAACACCCGGGCGGACCCAACTCATCTCAGATGGAGGAATTTTGTAAAGGCAGTGAGCACA
GGTGGAGGGGGCCATGTACAGTTGCTCCGTCGGGCGGACGCTCAGCTGACCTACTGCTCCCTGTCTC
CTGACGACCTGGCTGACCGGGGCTGCTGGGACTCCAGGTGCTCTATGCCCATGATGCTTTACGGCT
CTGGGAGATCATTGCCAGGTATGTGGAGGGGATCGTCCACCTCTTCTACCAAAGGATGACATAGTGAAG
GGGACCCCTGAGCTGCAGGCTGGTGTCCGGAGATCACGGAGGTGGGGCTGTGCCAGGCCAGGACCGAG
GTTTCCCTGTCTCCTTCCAGTCCAGAGTCAACTCTGCCATTTCTCACCATGTGCGTCTTACGTGCAC
TGCCCAGCATGCCCCATCAACCAGGGCCAGCTGGACTGGTATGCCTGGTCCCTAATGCTCCATGCACA
ATGCGGATGCCCCACCCACCACCAAGGAAGATGTGACGATGGCCACAGTATGGGGTCACTACCTGATG
TCCGGCAGGCTGTCTTCAAATGGCCATCTCATGGCATCTGAGTCGCCCGCCAGCCAGACATGGTGCCTCT
GGGGCACCACAAAGAAAATATTTCTCAGGCCCAAGCCAAAGCTGTGCTAAACCAATCCGAACAGAT
TTGAAAAGCTGAAAAGGAGATTACAGCCCGAATGAGCAACTGACTGGCCCTATGAATATCTGAAGC
CCAGCTGCATAGAGAACAGTGTACCATCTGA
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Restriction Sites: Please inquire

ACCN: NM_000697

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 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_000697.1](#), [NP_000688.1](#)

RefSeq Size: 2335 bp

RefSeq ORF: 1992 bp

Locus ID: 239

UniProt ID: [P18054](#)

Cytogenetics: 17p13.1

Protein Families: Druggable Genome

Protein Pathways: Arachidonic acid metabolism, Metabolic pathways

Gene Summary:

This gene encodes a member of the lipoxygenase family of proteins. The encoded enzyme acts on different polyunsaturated fatty acid substrates to generate bioactive lipid mediators including eicosanoids and lipoxins. The encoded enzyme and its reaction products have been shown to regulate platelet function. Elevated expression of this gene has been observed in pancreatic islets derived from human diabetes patients. Allelic variants in this gene may be associated with susceptibility to toxoplasmosis. Multiple pseudogenes of this gene have been identified in the human genome. [provided by RefSeq, Aug 2017]