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Product datasheet for RC210211

12 Lipoxygenase (ALOX12) (NM_000697) Human Tagged ORF Clone

Product data:

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

ORF Nucleotide Sequence:

>RC210211 representing NM_000697
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCCGCTACCGCATCCGCGTGGCCACCGGGGCCTGGCTCTTCTCCGGGTCGTACAACCGCGTGCAGC
TTTGGCTGGTCGGGACGCGCGGGGAGGCGGAGCTGGAGCTGCAGCTGCGGCCGGCGCGGGGCGAGGAGGA
GGAGTTTGATCATGACGTTGCAGAGGACTTGGGGCTCCTGCAGTTCGTGAGGCTGCGCAAGCACCACTGG
CTGGTGGACGACGCGTGGTTCTGCGACCGCATCACGGTGCAGGGCCCTGGAGCCTGCGCGGAGGTGGCCT
TCCCGTGCTACCGCTGGGTGCAGGGCGAGGACATCCTGAGCCTGCCCGAGGGCACCGCCCGCCTGCCAGG
AGACAATGCTTTGGACATGTTCCAGAAGCATCGAGAGAAGGAACTGAAAGACAGACAGCAGATCTACTGC
TGGGCCACCTGGAAGGAAGGGTTACCCCTGACCATCGCTGCAGACCGTAAGGATGATCTACCTCCAAATA
TGAGATTCCATGAGGAGAAGAGGCTGGACTTTGAATGGACACTGAAGGCAGGGGCTCTGGAGATGGCCCT
CAAACGTGTTTACACCCTCCTGAGCTCCTGGAACTGCCTAGAAGACTTTGATCAGATCTTCTGGGGCCAG
AAGAGTGCCCTGGCTGAGAAGGTTCGCCAGTGCTGGCAGGATGATGAGTTGTTCAGCTACCAGTTCCTCA
ATGGTGCCAACCCCATGCTGTTGAGACGCTCGACCTCTCTGCCCTCCAGGCTAGTGCTGCCCTCAGGGAT
GGAAGAGCTTCGGGCTCAACTGGAGAAAGAACTTCAGAATGGTTCCCTGTTTGAAGCTGACTTCATCCTT
CTGGATGGAATTCCAGCCAACGTGATCCGAGGAGAGAAGCAATACCTGGCTGCCCCCCTCGTTATGCTGA
AGATGGAGCCCAATGGGAAGCTGCAGCCCATGGTCATCCAGATTCAGCCTCCCAACCCCAGCTCTCCAAC
CCCAACACTGTTCCTGCCCTCAGACCCCCCACTTGCCTGGCTCCTGGCAAAGTCCTGGGTCCGAAATTCA
GATTTCCAACTGCACGAGATCCAGTATCACTTGCTGAACACGCACCTGGTGGCTGAGGTCATCGCTGTCG
CCACCATGCGGTGCCTCCCAGGACTGCACCCCATCTTCAAGTTCCTGATCCCCCATATCCGCTACACCAT
GGAAATCAACACCCGGGCCCGGACCCAACTCATCTCAGATGGAGGAATTTTTGATAAGGCAGTGAGCACA
GGTGGAGGGGGCCATGTACAGTTGCTCCGTCGGGCGGCAGCTCAGCTGACCTACTGCTCCCTCTGTCCTC
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GGGGACCCTGAGCTGCAGGCCTGGTGTCGGGAGATCACGGAGGTGGGGCTGTGCCAGGCCCAGGACCGAG
GTTTCCCTGTCTCCTTCCAGTCCCAGAGTCAACTCTGCCATTTCCTCACCATGTGCGTCTTCACGTGCAC
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ATGCGGATGCCCCCACCCACCACCAAGGAAGATGTGACGATGGCCACAGTGATGGGGTCACTACCTGATG
TCCGGCAGGCCTGTCTTCAAATGGCCATCTCATGGCATCTGAGTCGCCGCCAGCCAGACATGGTGCCTCT
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TTGGAAAAGCTGGAAAAGGAGATTACAGCCCGGAATGAGCAACTTGACTGGCCCTATGAATATCTGAAGC
CCAGCTGCATAGAGAACAGTGTCACCATC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210211 representing NM_000697
Red=Cloning site Green=Tags(s)

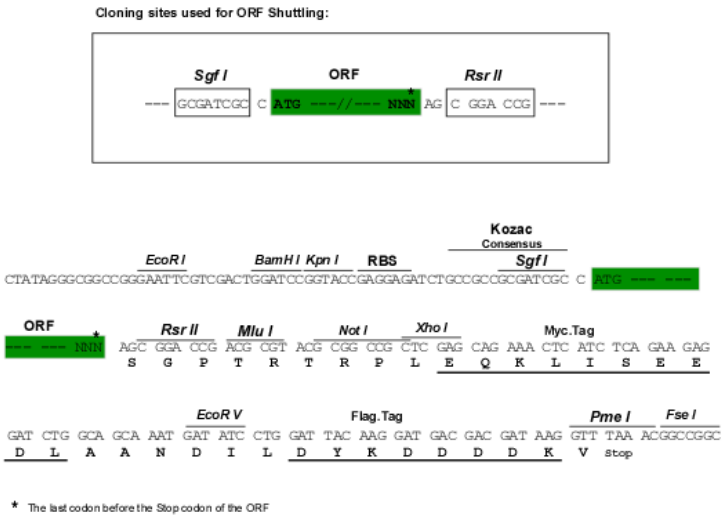
MGRYRIRVATGAWLFSGSYNRVQLWLVGTRGEAELELQLRPARGEEEEFDHDVAEDLGLLQFVRLRKHHW
LVDDAWFCDRITVQGPGACAEVAFPCYRWVQGEDILSLPEGTARLPGDNALDMFQKHREKELKDRQQIYC
WATWKEGLPLTIAADRKDDLPPNMRFHEEKRLDFEWTLKAGALEMALKRVYTLLSSWNCLEDFDQIFWGQ
KSALAEKVRQCWQDDELFSYQFLNGANPMLLRRSTSLPSRLVLPSGMEELRAQLEKELQNGSLFEADFIL
LDGIPANVIRGEKQYLAAPLVMLKMEPNGKLQPMVIQIQPPNPSSPTPTLFLPSDPPLAWLLAKSWVRNS
DFQLHEIQYHLLNTHLVAEVIAVATMRCLPGLHPIFKFLIPHIRYTMEINTRARTQLISDGGIFDKAVST
GGGGHVQLLRRAAAQLTYCSLCPPDDLADRGLLGLPGALYAHDALRLWEIIARYVEGIVHLFYQRDDIVK
GDPELQAWCREITEVGLCQAQDRGFPVSFQSQSQLCHFLTMCVFTCTAQHAAINQGQLDWYAWVPNAPCT
MRMPPPTTKEDVTMATVMGSLPDVRQACLQMAISWHLSRRQPDMVPLGHHKEKYFSGPKPKAVLNQFRTD
LEKLEKEITARNEQLDWPYEYLKPSCIENSVTI

SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4001_b05.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



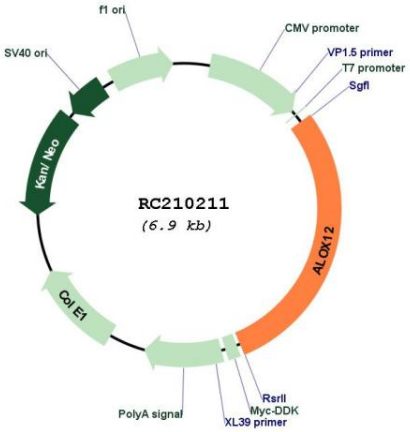
ACCN: NM_000697

ORF Size: 1989 bp

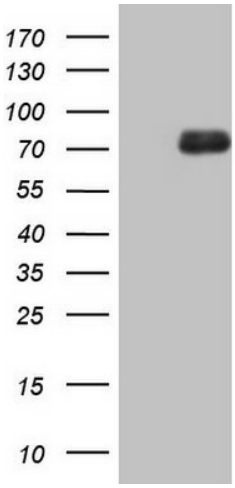
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000697.3
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
MW:	75.5 kDa

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]

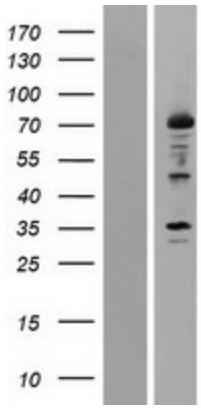
Product images:



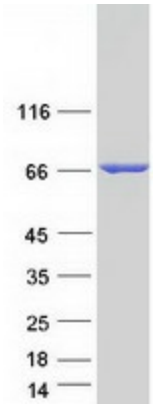
Circular map for RC210211



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ALOX12 (Cat# RC210211, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ALOX12 (Cat# [TA807718])(1:2000). Positive lysates [LY424567] (100ug) and [LC424567] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424567]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210211 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALOX12 protein (Cat# [TP310211]). The protein was produced from HEK293T cells transfected with ALOX12 cDNA clone (Cat# RC210211) using MegaTran 2.0 (Cat# [TT210002]).