

Product datasheet for **RC214075**

15 Lipoxygenase 2 (ALOX15B) (NM_001039131) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	15 Lipoxygenase 2 (ALOX15B) (NM_001039131) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	15 Lipoxygenase 2
Synonyms:	15-LOX-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214075 representing NM_001039131
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCCGAGTTCAGGGTCAGGGTGTCCACCGGAGAAGCCTTCGGGGCTGGCACATGGGACAAAGTGTCTG
 TCAGCATCGTGGGACCCGGGGAGAGAGCCCCACTGCCCTGGACAATCTCGGCAAGGAGTTCAGTGC
 GGGCGCTGAGGAGGACTTCCAGGTGACGCTCCCGGAGGACGTAGGCCGAGTGTCTGCTGCTGCGCGTGCAC
 AAGGCGCCCCAGTGTGCCCTGCTGGGGCCCTGGCCCCGGATGCCTGGTTCTGCCGCTGGTTCCAGC
 TGACACCGCCCGGGGGGCCACCTCCTCTCCCTGCTACCAGTGGCTGGAGGGGGCGGGGACCCTGGT
 GCTGCAGGAGGTACAGCCAAGGTGTCTGGGCAGACCACCACCTGTGCTCCAGCAACAGCGCCAGGAG
 GAGCTTACAGCCCGCAGGAGATGTACCAGTGAAGGCTTACAACCCAGGTTGGCCTCACTGCCTGGATG
 AAAAGACAGTGAAGACTTGAGCTCAATATCAAATACTCCACAGCCAAGAATGCCAACTTTTATCTACA
 GGCTGGCTCTGCTTTTGCAGAGATGAAAATCAAGGGTGTCTGGACCGCAAGGGGCTCTGGAGGAGTCTG
 AATGAGATGAAAAGGATCTTCAACTTCCGAGGACCCAGCAGCTGAGCACGCATTTGAGCACTGGCAGG
 AGGACGCCTTCTCGCCTCCCAGTTCCTGAATGGTCTCAACCCTGTCTGATCCGCCGCTGTCACTACCT
 CCCAAAGAACTTCCCCTCACTGATGCCATGGTGGCCTCAGTGTGGGTCTGGGACCAGCTTGCAGGCT
 GAGCTAGAGAAGGGCTCCCTGTTCTTGGTGGATCACGGCATCCTCTCTGGCATCCAGACCAATGTCATTA
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 GCCTCTCGCCATCCAGCTCAGCCAGACCCCGGCCAAACAGCCCCATCTTCTGCCACTGATGACAAG
 TGGGACTGGTTGCTGGCAAGACCTGGGTGCGCAATGCCGAGTTCCTTCCATGAGGCCCTCACGCACC
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 AACTATTCTCTCCTGTGTCTGCCTGAGGATATCCGGACCCGAGGAGTTGAAGACATCCCAGGCTACTACT
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 AGGGCTTCATAGCCACCTCCCACCTGTCAATGCCACATGTGATGTCATCCTTGTCTCTGGTTGTGAG
 CAAGGAGCCTGGAGACCAAGGCCCTGGGCACCTATCCGGATGAGCACTTACAGAGGAGGCCCTCGG
 CGGAGCATCGCCACCTTCCAGAGCCGCTGGCCAGATCTCGAGGGGCATCCAGGAGCGGAACCAGGGCC
 TGGTGTGCCCTACACCTACCTAGACCCTCCCCTCATCGAGAACAGCGTCTCCATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214075 representing NM_001039131
 Red=Cloning site Green=Tags(s)

MAEFRVRVSTGEAFGAGTWKVSIVGTRGESPLPLDNLGKEFTAGAEEDFQVTLPEDVGRVLLLRVH
 KAPPVLPPLGAPDAWFCRWFQLTPPRGGHLLFPCYQWLEGAGTLVLQEGTAKVSWADHHPVLQQQRQE
 ELQARQEMYQWKAYNPGWPHCLDEKTVEDLELNKYSTAKNANFYLQAGSAFAEMKIKGLLDRKGLWRS
 L NEMKRIFNFRRTPAAEHAFEHWQEDAFFASQFLNGLNPVLIRRCHYLPKNFPVTDAMVASVLP
 GPGTSLQA ELEKGSFLVDHGILSGIQTNVINGKPKFSAAPMTLLYQSPGCGPLPLPLAIQLSQT
 PGPNSPIFLPTDDKWDWLLAKTWVRNAEFSFHEALTHLLHSHLLPEVFTLATLRQLPHCHPLFKSTG
 IGIEGFSELIQRNMKQLNYSLLCLPEDIRTRGVEDIPGYYYRDDGMQIWGIPSSLETREALVQYVTM
 VIFTCSAKHAAVSAGQFDSCAWMPNLPPSMQLPPPTSGLATCEGFIALPPVATCDVILALWLLSKE
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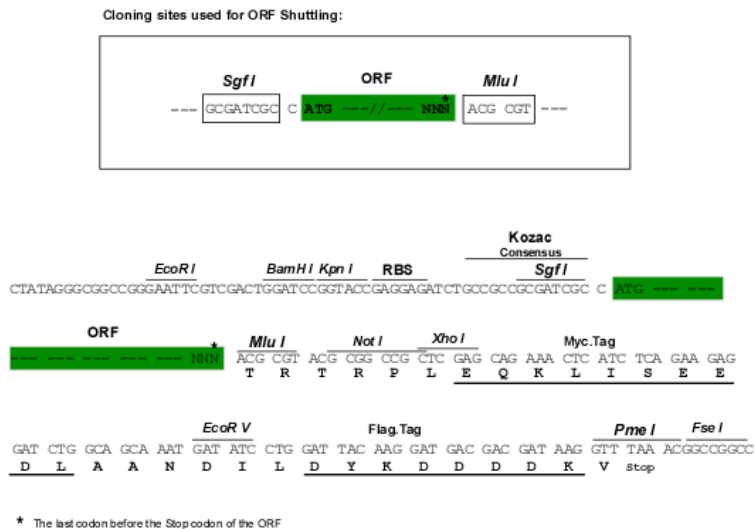
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8069_c03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001039131

ORF Size: 1806 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_001039131.2](#)

RefSeq Size: 2508 bp

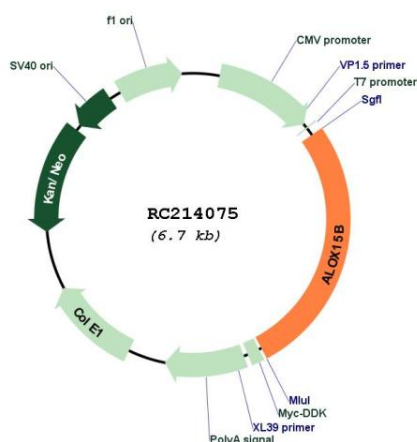
RefSeq ORF: 1809 bp

Locus ID: 247

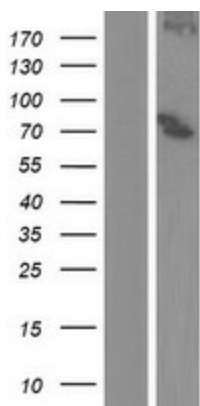
UniProt ID: [O15296](#)
Cytogenetics: 17p13.1
Protein Families: Druggable Genome
Protein Pathways: Arachidonic acid metabolism, Metabolic pathways
MW: 67.2 kDa

Gene Summary: This gene encodes a member of the lipoxygenase family of structurally related nonheme iron dioxygenases involved in the production of fatty acid hydroperoxides. The encoded protein converts arachidonic acid exclusively to 15S-hydroperoxyeicosatetraenoic acid, while metabolizing linoleic acid less effectively. This gene is located in a cluster of related genes and a pseudogene that spans approximately 100 kilobases on the short arm of chromosome 17. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC214075



Western blot validation of overexpression lysate (Cat# [LY422019]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214075 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).