

Product datasheet for **RC207617**

Leukotriene A4 hydrolase (LTA4H) (NM_000895) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Leukotriene A4 hydrolase (LTA4H) (NM_000895) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Leukotriene A4 hydrolase
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC207617 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCCGAGATAGTGATACCTGTTGCTTGGCCTCTCCGGCTCCGTCTGCCGACCAAGCACCTGCACC
 TGCCTGCAGCGTCGACTTTACTCGCCGACGCTGACCGGACTGCTGCTCTCACGGTCCAGTCTCAGGA
 GGACAATCTGCGCAGCCTGGTTTTGGATACAAAGGACCTTACAATAGAAAAAGTAGTGATCAATGGACAA
 GAAGTCAAATATGCTCTTGGAGAAAGACAAAGTTACAAGGGATCGCCAATGGAAATCTCTCTTCTATCG
 CTTTGAGCAAAAATCAAGAAATTGTTATAGAAATTTCTTTGAGACCTCTCCAAAATCTTCTGCTCTCCA
 GTGGCTCACTCCTGAACAGACTTCTGGGAAGGAACACCCATATCTCTTTAGTCAGTGCCAGGCCATCCAC
 TGCAGAGCAATCCTTCTGTGAGACTCCTTCTGTGAAATTAACCTATACTGCAGAGGTGTCTGTCC
 CTAAGAAGTGGTGGCACTTATGAGTGCTATTCGTGATGGAGAAACACCTGACCCAGAAGACCCAAGCAG
 GAAAATATACAAATTCATCCAAAAGTTCCAATACCCTGTACCTGATTGCTTTAGTTGTTGGAGCTTTA
 GAAAGCAGGCAAATTTGGCCCAAGAACTTTGGTGTGGTCTGAGAAAAGAGCAGGTGGAAAAGTCTGCTTATG
 AGTTTTCTGAGACTGAATCTATGCTTAAAAATAGCAGAAGATCTGGGAGGACCGTATGTATGGGGACAGTA
 TGACCTATTGGTCTGCCACCATCCTTCCCTTATGGTGGCATGGAGAATCCTTGCCTTACTTTTGTAACT
 CCTACTCTACTGGCAGGCGACAAGTCACTCTCCAATGTCATTGCACATGAAAATCTCATAGCTGGACAG
 GGAATCTAGTGACCAACAAAACCTGGGATCACTTTTGGTTAAATGAGGGACATACTGTGACTTGGAACG
 CCACATTTGCGGACGATTGTTTGGTGAAGGTTTCCAGACATTTTAAATGCTCTGGGAGGATGGGAGAACTA
 CAGAATTCGGTAAAGACATTTGGGGAGACACATCCTTTACCAAACCTGTGGTTGATCTGACAGATATAG
 ACCCTGATGTAGCTTATCTTCAGTCCCTATGAGAAGGCTTTGCTTTACTTTTTACCTTGAACAACT
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 TGCTTGTATTGCCTAAGTCAAAGATGGATTACTGCCAAAGAAGATGATTTAAATTCATTCAATGCCACA
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 CATTGGGGCACATAAAGCGAATGCAAGAGGTGTACAACCTCAATGCCATTAACAATCTGAAATACGATT
 CAGATGGCTGCGGCTCTGCATTCAATCCAAGTGGGAGGACGCAATTCCTTTGGCGCTAAAGATGGCACT
 GAACAAGGAAGAATGAAGTTTACCAGGCTTATCAAGGATCTTCTGCTGCTTTGACAAAATCCCATGATC
 AAGCTGTCCGAACCTACCAAGAGCACAAGCAAGCATGCATCCCGTGACTGCAATGCTGGTGGGAAAGA
 CTTAAAAGTGGAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207617 protein sequence
 Red=Cloning site Green=Tags(s)

MPEIVDTCSLASPASVCRTHLHLRCSVDFTRRLTGTAAALTVQSQEDNLRSLVLDTKDLTIEKVINGQ
 EVKYALGERQSYKSPMEISLPIALSKNQEIIVIEISFETSPKSSALQWL TPEQTSKGHPYLFSSQCQAIH
 CRAILPCQDTPSVKLYTAEVSPKELVALMSAIRDGETPDPEDPSRKIYKFIQKVIIPCYLIALVVGAL
 ESRQIGPRTLWVSEKEQVEKSAYEFSETESMLKIAEDLGGPYVWGQYDLLVLPSPFPYGGMENPCLTFVT
 PTLLAGDKSLSNVIAHEISHSWTGNLVTNKTWDFWLNNEGHTVYLERHICGRLFGEKFRHFNALGGWEL
 QNSVKTFGETHPFTKLVDLTDIDPDVAYSSVPYEKGFALLFYLEQLLGGPEIFLGLFKAYVEKFSYKSI
 TTDDWKFLLSYFKDKVDVNLNQVDWNAWLYSPGLPPIKPNYDMLTNACIALSQRWITAKEDDLNSFNAT
 DLKDLSSHQLNEFLAQLQRAPLPLGHIKRMQEVYFNAINNSEIRFRWLRLCIQSKWEDAIPLALKMAT
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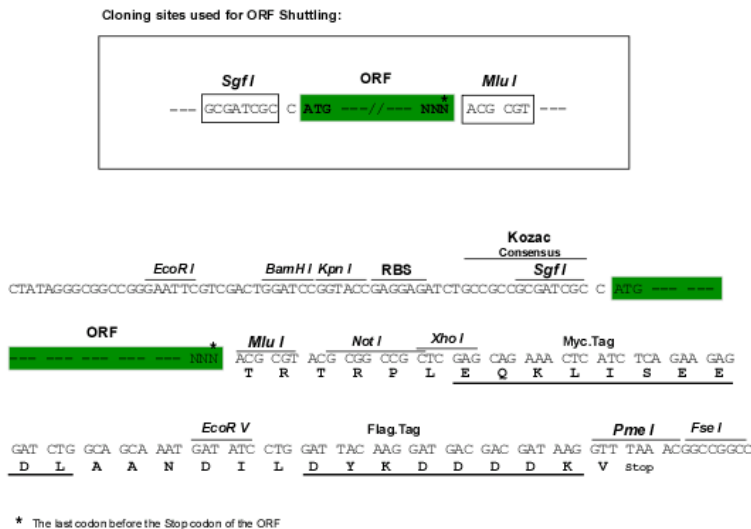
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6235_g04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000895

ORF Size: 1833 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_000895.3](#)

RefSeq Size: 2214 bp

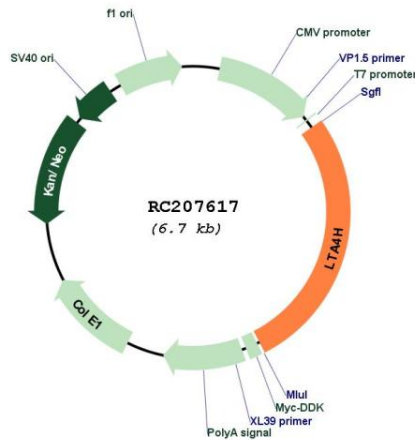
RefSeq ORF: 1836 bp

Locus ID: 4048

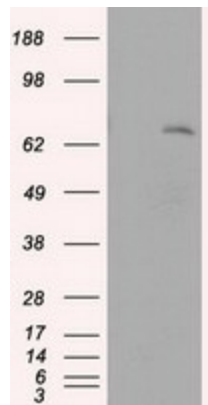
UniProt ID: [P09960](#)

Cytogenetics: 12q23.1
Domains: Peptidase_M1
Protein Families: Druggable Genome, Protease
Protein Pathways: Arachidonic acid metabolism, Metabolic pathways
MW: 69.3 kDa
Gene Summary: The protein encoded by this gene is an enzyme that contains both hydrolase and aminopeptidase activities. The hydrolase activity is used in the final step of the biosynthesis of leukotriene B4, a proinflammatory mediator. The aminopeptidase activity has been shown to degrade proline-glycine-proline (PGP), a neutrophil chemoattractant and biomarker for chronic obstructive pulmonary disease (COPD). Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2015]

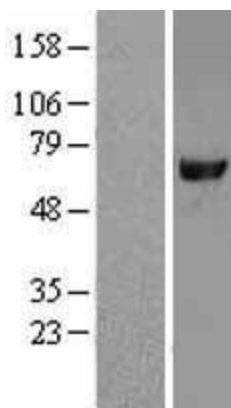
Product images:



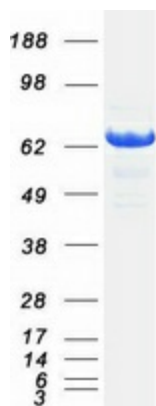
Circular map for RC207617



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LTA4H (Cat# RC207617, 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-LTA4H (Cat# [TA500643]). Positive lysates [LY424467] (100ug) and [LC424467] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424467]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207617 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LTA4H protein (Cat# [TP307617]). The protein was produced from HEK293T cells transfected with LTA4H cDNA clone (Cat# RC207617) using MegaTran 2.0 (Cat# [TT210002]).