

Product datasheet for **RC231372**

LDL Receptor (LDLR) (NM_001195803) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LDL Receptor (LDLR) (NM_001195803) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LDL Receptor
Synonyms:	FH; FHC; FHCL1; LDLCQ2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC231372 representing NM_001195803
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCCCTGGGGCTGAAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGGGGACTGCAGTGG
 GCGACAGATGCGAAAGAAACGAGTTCCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGGGTCTGCGA
 TGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTACCTGCAAATCC
 GGGGACTTCAGCTGTGGGGCCGTGTAACCGCTGCATTCCTCAGTTCTGGAGGTGCGATGGCCAAGTGG
 ACTGCGACAACGGCTCAGACGAGCAAGGCTGTCTGTGGCCACCTGTCCGCTGACGAATCCAGTGCTC
 TGATGGAACTGCATCCATGGCAGCCGGCAGTGTGACCGGAATATGACTGCAAGGACATGAGCGATGAA
 GTTGGCTGCGTTAATGTGACACTCTGCGAGGGACCAACAAGTTCAAGTGTACAGCGGCGAATGCATCA
 CCCTGGACAAAGTCTGCAACATGGCTAGAGACTGCCGGGACTGGTCAGATGAACCCATCAAAGAGTGGCG
 GACCAACGAATGCTTGGACAACAACGGCGGCTGTCCACGTCTGCAATGACCTTAAGATCGGCTACGAG
 TGCTGTGCCCGACGGCTTCCAGCTGGTGGCCAGCAAGATGCGAAGATATCGATGAGTGTGAGGATC
 CCGACACCTGCAGCCAGCTCTGCGTGAACCTGGAGGGTGGCTACAAGTGCCAGTGTGAGGAAGGCTTCCA
 GCTGGACCCACACGAAGGCTGCAAGGCTGTGGGCTCCATCGCCTACCTCTTCTTACCAACCGGCAC
 GAGGTCAGGAAGATGACGCTGGACCGGAGCGAGTACACCAGCCTCATCCCCAACCTGAGGAACGTGGTGC
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 CCAGCTTGACAGAGCCCACGGCGTCTTCTCTATGACACCGTCATCAGCAGAGACATCCAGGCCCCGAC
 GGGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTCTGGGCACTGTCTCTGTTG
 CGGATACCAAGGGCGTGAAGAGGAAAACGTTATTCAGGGAGAACGGCTCCAAGCCAAGGCCATCGTGGT
 GGATCCTGTTTATGGCTTCAATGTACTGGACTGACTGGGGAACCCCGCAAGATCAAGAAAGGGGGCCTG
 AATGGTGTGGACATCTACTCGCTGGTGAACCTGAAAACATTCAGTGGCCCAATGGCATCACCTAGATCTCC
 TCAGTGGCCGCTCTACTGGGTTGACTCCTCAAACTTCACTCCATCTCAAGCATCGATGTCAACGGGGCAA
 CCGGAAGACCATCTTGGAGGATGAAAAGAGGCTGGCCACCCCTTCTCCTTGGCCGCTTTTGGAGACAAA
 GTATTTTGGACAGATATCATCAACGAAGCCATTTTTCAGTGCCAACCGCCTCACAGGTTCCGATGTCAACT
 TGTTGGCTGAAAACCTACTGTCCCAGAGGATATGGTTCTTCCACAACCTCACCCAGCCAAGAGAGGC
 TGAGGCTGCAGTGGCCACCCAGGAGACATCCACCGTCAGGCTAAAGTTCAGCTCCACAGCCGTAAGGACA
 CAGCACACAACCACCCGACCTGTCCCAGACCTCCCGGCTGCCTGGGGCCACCCCTGGGCTCACACCGG
 TGGAGATAGTGACAATGTCTACCAAGCTCTGGGCGACGTTGCTGGCAGAGGAAATGAGAAGAAGCCAG
 TAGCGTGAGGGCTCTGTCCATTGTCTCCCATCGTGCTCCTCGTCTTCTTTGCCTGGGGTCTTCTCT
 CTATGGAAGAAGTGGCGCTTAAGAATCAACAGCATCAACTTTGACAACCCGCTATATCAGAAGACCA
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 GGAGGATGACGTGGCG

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

Protein Sequence: >RC231372 representing NM_001195803
 Red=Cloning site Green=Tags(s)

MGPWGKLRWTVALLLAAAGTAVGDR CERNEFQCQDGK C I SYKWVCDGSAECQDGSDESQETCLSVTCKS
 GDFSCGGRVNR C I P Q F W R C D G Q V D C D N G S D E Q G C P V A T C R P D E F Q C S D G N C I H G S R Q C D R E Y D C K D M S D E
 V G C V N V T L C E G P N K F K C H S G E C I T L D K V C N M A R D C R D W S D E P I K E C G T N E C L D N N G G C S H V C N D L K I G Y E
 C L C P D G F Q L V A Q R R C E D I D E C Q D P D T C S Q L C V N L E G G Y K C Q C E E G F Q L D P H T K A C K A V G S I A Y L F F T N R H
 E V R K M T L D R S E Y T S L I P N L R N V V A L D T E V A S N R I Y W S D L S Q R M I C S T Q L D R A H G V S S Y D T V I S R D I Q A P D
 G L A V D W I H S N I Y W T D S V L G T V S V A D T K G V K R K T L F R E N G S K P R A I V V D P V H G F M Y W T D W G T P A K I K K G G L
 N G V D I Y S L V T E N I Q W P N G I T L D L L S G R L Y W V D S K L H S I S S I D V N G G N R K T I L E D E K R L A H P F S L A V F E D K
 V F W T D I I N E A I F S A N R L T G S D V N L L A E N L L S P E D M V L F H N L T Q P R E A E A V A T Q E T S T V R L K V S S T A V R T
 Q H T T T R P V P D T S R L P G A T P G L T T V E I V T M S H Q A L G D V A G R G N E K K P S S V R A L S I V L P I V L L V F L C L G V F L
 L W K N W R L K N I N S I N F D N P V Y Q K T T E D E V H I C H N Q D G Y S Y P S R Q M V S L E D D V A

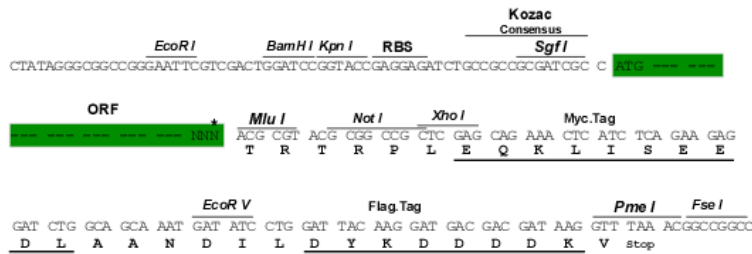
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8072_g04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001195803

ORF Size: 2046 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.

RefSeq: [NM_001195803.2](#)

RefSeq ORF: 2049 bp

Locus ID: 3949

UniProt ID: [P01130](#)

Cytogenetics: 19p13.2

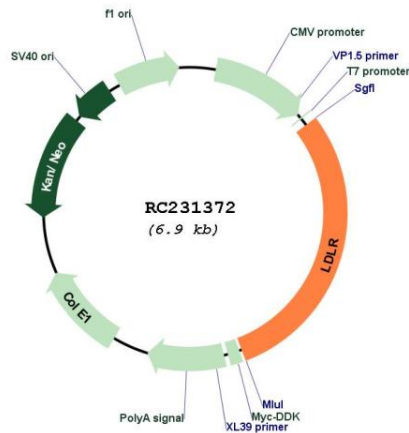
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

Protein Pathways: Endocytosis

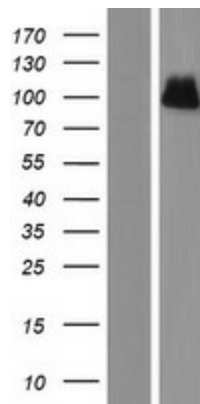
MW: 76.3 kDa

Gene Summary:

The low density lipoprotein receptor (LDLR) gene family consists of cell surface proteins involved in receptor-mediated endocytosis of specific ligands. Low density lipoprotein (LDL) is normally bound at the cell membrane and taken into the cell ending up in lysosomes where the protein is degraded and the cholesterol is made available for repression of microsomal enzyme 3-hydroxy-3-methylglutaryl coenzyme A (HMG CoA) reductase, the rate-limiting step in cholesterol synthesis. At the same time, a reciprocal stimulation of cholesterol ester synthesis takes place. Mutations in this gene cause the autosomal dominant disorder, familial hypercholesterolemia. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Sep 2010]

Product images:


Circular map for RC231372



Western blot validation of overexpression lysate (Cat# [LY434371]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC231372 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).