

Product datasheet for **RG231420**

LDL Receptor (LDLR) (NM_001195799) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | LDL Receptor (LDLR) (NM_001195799) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | LDLR |
| Synonyms: | FH; FHC; FHCL1; LDLCQ2 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



[View online »](#)

ORF Nucleotide Sequence:

>RG231420 representing NM_001195799
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCCCTGGGGCTGGAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGCCGGGGACTGCAGTGG
 GCGACAGATGCGAAAGAAACGAGTTCCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGGGTCTGCGA
 TGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTCCCCAAGACGTGCTCCAG
 GACGAGTTTCGCTGCCACGATGGGAAGTGCATCTCTCGGCAGTTCGTCTGTGACTCAGACCGGGACTGCT
 TGGACGGCTCAGACGAGGCTCCTGCCCGGTGCTCACCTGTGGTCCCAGCTTCCAGTGAACAGCTC
 CACCTGCATCCCCAGCTGTGGCCTGCGACAACGACCCCGACTGCGAAGATGGCTCGGATGAGTGGCCG
 CAGCGCTGAGGGGTCTTACGTGTTCCAAGGGGACAGTAGCCCTGCTCGGCCCTCGAGTTCAGTCCG
 TAAGTGGCGAGTGCATCCACTCCAGCTGGCGCTGTGATGGTGGCCCCGACTGCAAGGACAAATCTGACGA
 GAAAACTGCGCTGTGGCCACCTGTCGCCCTGACGAATCCAGTCTGATGGAAGTGCATCCATGGC
 AGCCGGCAGTGTACCGGGAATATGACTGCAAGGACATGAGCGATGAAGTTGGCTGCGTTAATGTGACAC
 TCTGCGAGGGACCAACAAGTTCAGTGTACAGCGGCGAATGCATCACCTGGACAAAGTCTGCAACAT
 GGCTAGAGACTGCCGGGACTGGTCAGATGAACCCATCAAAGAGTGGCGGACCAACGAATGCTTGGACAAC
 AACGGCGGCTGTTCCACGTCTGCAATGACCTTAAGATCGGCTACGAGTGCCTGTGCCCGACGGCTTCC
 AGCTGGTGGCCAGCGAAGATGCGAAGATATCGATGAGTGTGAGGATCCCAGACCTGCAGCCAGCTCTG
 CGTGAACCTGGAGGTGGCTACAAGTCCAGTGTGAGGAAGGCTTCCAGCTGGACCCACACGAAGGCC
 TGCAAGGCTGTGGGCTCCATCGCTACCTTCTTCCCAACCGCACGAGGTGAGGAAGATGACGCTGG
 ACCGGAGCGAGTACACCAGCCTCATCCCCAACCTGAGGAACGTGGTCTGCTGACACGGAGGTGGCCAG
 CAATAGAATCTACTGGTCTGACCTGTCCCAGAGAATGATCTGCAGCACCCAGCTTGACAGAGCCACGGC
 GTCTTCTCTATGACACCGTCTCAGCAGAGACATCCAGGCCCGACGGGCTGGCTGTGGACTGGATCC
 ACAGCAACATCTACTGGACCGACTCTGTCTGGGCACTGTCTGTTGCGGATACCAAGGGCGTGAAGAG
 GAAAACGTTATTCAGGGAGAACGGCTCCAAGCCAAGGGCCATCGTGGTGGATCCTGTTTATGGCTTCATG
 TACTGGACTGACTGGGAACTCCCGCAAGATCAAGAAAGGGGGCTGAATGGTGTGGACATCTACTCGC
 TGGTACTGAAAACATTCAGTGGCCCAATGGCATCACCTAGATCTCCTCAGTGGCCGCTCTACTGGGT
 TGACTCCAACTTCACTCCATCTCAAGCATCGATGTCAACGGGGCAACCGGAAGACCATCTTGGAGGAT
 GAAAAGAGGCTGGCCACCCCTTCTCCTTGGCCGTCTTTGAGGACAAAGTATTTTGGACAGATATCATCA
 ACGAAGCCATTTTCAGTGCCAACCGCCTCACAGGTTCCGATGTCAACTGTTGGCTGAAAACCTACTGTC
 CCCAGAGGATATGGTTCTCTCCACAACCTCACCCAGCCAAGAGGAGTGAAGTGGTGTGAGAGGACCACC
 CTGAGCAATGGCGGCTGCCAGTATCTGTGCCTCCCTGCCCGCAGATCAACCCCACTCGCCCAAGTTTA
 CCTGCGCTGCCCGGACGGCATGCTGCTGGCCAGGGACATGAGGAGTGCCTCACAGAGGCTGAGGCTGC
 AGTGGCCACCCAGGAGACATCCACCGTCAGGCTAAAGGTGAGCTCCACAGCCGTAAAGACACAGCACACA
 ACCACCCGACCTGTTCCCGACACCTCCCGGCTGCCTGGGGCCACCCCTGGGCTCACACGGTGGAGATAG
 TGACAAATGTCTCACCAAGCTCTGGGCGAGTGTGCTGGCAGAGGAAATGAGAAGAAGCCAGTAGCGTGAG
 GGCTCTGTCCATTGTCTCCCATCGTGTCTCCTGCTCTTCTTGGCTGGGGTCTTCTTCTATGGAAG
 AACTGGCGGCTTAAGAACATCAACAGCATCAACTTTGACAACCCCGTCTATCAGAAGACCACAGAGGATG
 AGGTCCACATTTGCCACAACAGGACGGCTACAGCTACCCCTCGAGACAGATGGTCAGTCTGGAGGATGA
 CGTGGCG

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG231420 representing NM_001195799
 Red=Cloning site Green=Tags(s)

```
MGPWGWKLRWTVALLAAAGTAVGDR CERNEFQCQDGK C I S Y K W V C D G S A E C Q D G S D E S Q E T C S P K T C S Q
DEFRCHD G K C I S R Q F V C D S D R D C L D G S D E A S C P V L T C G P A S F Q C N S S T C I P Q L W A C D N D P D C E D G S D E W P
Q R C R G L Y V F Q G D S S P C S A F E F H C L S G E C I H S S W R C D G G P D C K D K S D E E N C A 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 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 G V N W C E R T T
L S N G G C Q Y L C L P A P Q I N P H S P K F T C A C P D G M L L A R D M R S C L T E A E A 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
```

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:

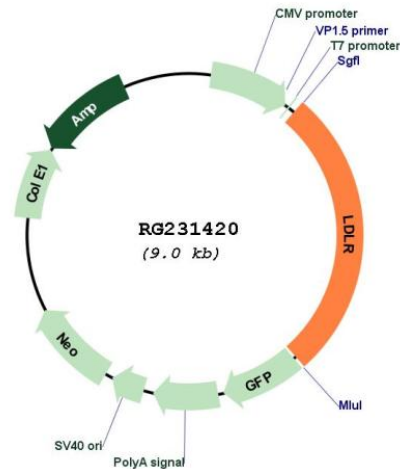
Cloning sites used for ORF Shutting:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI
 CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

 HindIII NheI RsrII MluI NotI XhoI GFP Tag
 CAAGCTTAACTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC - - - -
 T R T R P L E M E S D - - -

 PmeI FseI
 - - - GAA GAA AGA GTT TAA ACGGCCGGCCGCGGAGCT
 - - E E R V Stop

Plasmid Map:


ACCN: NM_001195799

ORF Size: 2457 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_001195799.2 |
| RefSeq Size: | 5169 bp |
| RefSeq ORF: | 2460 bp |
| Locus ID: | 3949 |
| UniProt ID: | P01130 |
| Cytogenetics: | 19p13.2 |
| Protein Families: | Druggable Genome, ES Cell Differentiation/IPS, Transmembrane |
| Protein Pathways: | Endocytosis |
| Gene Summary: | <p>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]</p> |