

## Product datasheet for **RG231372**

### 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:	TurboGFP
Symbol:	LDL Receptor
Synonyms:	FH; FHC; FHCL1; LDLCQ2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG231372 representing NM\_001195803  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGGCCCTGGGGCTGAAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGGGGACTGCAGTGG  
 GCGACAGATGCGAAAGAAACGAGTTCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGGGTCTGCGA  
 TGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTACCTGCAAATCC  
 GGGGACTTCAGCTGTGGGGCCGTGTAACCGCTGCATTCCTCAGTTCTGGAGGTGCGATGGCCAAGTGG  
 ACTGCGACAACGGCTCAGACGAGCAAGGCTGTCTGTGGCCACCTGTCCGCTGACGAATCCAGTGCTC  
 TGATGGAACTGCATCCATGGCAGCCGGCAGTGTGACCGGAATATGACTGCAAGGACATGAGCGATGAA  
 GTTGGCTGCGTTAATGTGACACTCTGCGAGGGACCAACAAGTTCAAGTGTACAGCGGCGAATGCATCA  
 CCCTGGACAAAGTCTGCAACATGGCTAGAGACTGCCGGGACTGGTCAGATGAACCCATCAAAGAGTGGG  
 GACCAACGAATGCTTGGACAACAACGGCGGCTGTCCACGTCTGCAATGACCTTAAGATCGGCTACGAG  
 TGCTGTGCCCGACGGCTTCCAGCTGGTGGCCAGCAAGATGCGAAGATATCGATGAGTGTGAGGATC  
 CCGACACCTGCAGCCAGCTCTGCGTGAACCTGGAGGGTGGCTACAAGTGCCAGTGTGAGGAAGGCTTCCA  
 GCTGGACCCACACGAAGGCTGCAAGGCTGTGGGCTCCATCGCCTACCTCTTCTTACCAACCGGCAC  
 GAGGTCAGGAAGATGACGCTGGACCGGAGCGAGTACACCAGCCTCATCCCCAACCTGAGGAACGTGGTGC  
 CTCTGGACACGGAGGTGGCCAGCAATAGAATCTACTGGTCTGACCTGTCCAGAGAATGATCTGCAGCAC  
 CCAGCTTGACAGAGCCCACGGCTCTTCTCTATGACACCGTCATCAGCAGAGACATCCAGGCCCCGAC  
 GGGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTCTGGGCACTGTCTGTGTTG  
 CGGATACCAAGGGCGTGAAGAGGAAAACGTTATTCAGGGAGAACGGCTCCAAGCCAAGGCCATCGTGGT  
 GGATCCTGTTTATGGCTTCATGTACTGGACTGACTGGGGAACCTCCGCAAGATCAAGAAAGGGGGCCTG  
 AATGGTGTGGACATCTACTCGCTGGTGAACCTGAAAACATTCAGTGGCCCAATGGCATCACCTAGATCTCC  
 TCAGTGGCCGCTCTACTGGGTTGACTCCTCAAACTTCACTCCATCTCAAGCATCGATGTCAACGGGGCAA  
 CCGGAAGACCATCTTGGAGGATGAAAAGAGGCTGGCCACCCCTTCTCCTTGGCCGCTTTTGGAGACAAA  
 GTATTTTGGACAGATATCATCAACGAAGCCATTTTTCAGTGCCAACCGCCTCACAGGTTCCGATGTCAACT  
 TGTTGGCTGAAAACCTACTGTCCCAGAGGATATGGTTCTTCCACAACCTCACCCAGCCAAGAGAGGC  
 TGAGGCTGCAGTGGCCACCCAGGAGACATCCACCGTCAGGCTAAAGTTCAGCTCCACAGCCGTAAGGACA  
 CAGCACACAACCCCGACCTGTCCCAGACCTCCCGGCTGCCTGGGGCCACCCCTGGGCTCACCCAGG  
 TGGAGATAGTGACAATGTCTACCAAGCTCTGGGCGACGTTGCTGGCAGAGGAAATGAGAAGAAGCCAG  
 TAGCGTGAGGGCTCTGTCCATTGTCTCCCATCGTGCTCCTCGTCTTCTTTGCCTGGGGTCTTCTCT  
 CTATGGAAGAAGTGGCGCTTAAGAACATCAACAGCATCAACTTTGACAACCCGCTATATCAGAAGACCA  
 CAGAGGATGAGGTCCACATTTGCCACAACAGGACGGCTACAGCTACCCCTCGAGACAGATGGTCAGTCT  
 GGAGGATGACGTGGCG

**ACGCGT**ACGCGGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG231372 representing NM\_001195803  
 Red=Cloning site Green=Tags(s)

MGPWGKLRWTVALLLAAAGTAVGDR CERNEFQCQDGK CISYKWVCDGSAECQDGSDESQETCLSVTCKS  
 GDFSCGGRVNRICIPQWRC DGQVDCDNGSDEQGC PVATCRPDEFQCSDGNCIHGSRQCDREYDCKDMSDE  
 VGCYNVTLCEGPNKFKCHSGECITLDKVCNMARDCRDWSDEPIKECGTNECLDNNGGC SHVCNDLKI GYE  
 CLCPDGFQLVAQRRCEDIDECQDPDTC SQLCVNLEGGYKCQCEEGFQLDPHTKACKAVGSIAYLFFTNRH  
 EVRKMTLDRSEYTS LIPNLRNVVALDTEVASNR IYWSDL SQRMICSTQLDRAHGVSSYDTVISRDIQAPD  
 GLAVDWIHSNIYWTDSVLGT VSVADTKGVK RKT LFRENGSKPRAIVVDPVHGFMYWTDWGT PAKIKKGG L  
 NGVDIYSLVTENIQWPNGITL DLLSGRLYWVDSK LHSISSIDVNGGNRKTILEDEKRLAHPFSLAVFEDK  
 VFWTDIINEAIFSANRLT GSDVNLLAENLLSPEDM VLFHNLTPREAEAAVATQETSTVRLKVSSTAVRT  
 QHTTTRPV P DTSRLPGATPGLTTVEIVTMSHQALGDVAGRGNEKKPSSVRAL SIVLPIVLLVFLCLGVFL  
 LWKNWRLKNINSINF DNPVYQKTT EDEVHICHNQD GYSYPSRQMVSLEDDVA

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**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](mailto: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 Size:** 4758 bp

**RefSeq ORF:** 2049 bp

**Locus ID:** 3949

**UniProt ID:** [P01130](#)

**Cytogenetics:** 19p13.2

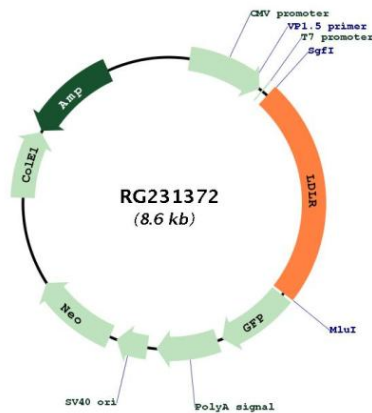
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

**Protein Pathways:** Endocytosis

**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 RG231372